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UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT

WORLD INVESTMENT REPORT

Transnational Corporations
and the Infrastructure Challenge



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and the Infrastructure Challenge**



UNITED NATIONS
New York and Geneva, 2008

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PREFACE

World foreign direct investment inflows rose last year to a record level of \$1.8 trillion. Developing and transition economies attracted more flows than ever before, reaching nearly \$600 billion – a 25 per cent increase over 2006, and a third of the global total. While global foreign direct investment flows are projected to decline this year, those to developing and transition economies are expected to suffer less, despite the current financial and credit crisis.

One of the main challenges for the international community is to mobilize greater financial flows for investment conducive to poverty reduction and the achievement of the Millennium Development Goals. In particular, developing countries require investments that will strengthen the infrastructure industries and services that are so essential for future growth and for the social well-being of the poor. The *World Investment Report 2008* examines the ways, extent and conditions under which transnational corporations can contribute to meeting the infrastructure challenge.

The *Report* argues that while the participation of transnational corporations in the infrastructure sector of developing countries has risen significantly, a huge gap remains between current investment levels and what is still needed. Filling the investment gap is particularly urgent in the case of essential infrastructure industries, such as water and electricity; and is critically important in sectors such as telecommunications and transport.

The *Report* cautions against unrealistic expectations about the contribution of transnational corporations. Companies will only invest in infrastructure projects that can assure adequate returns for commensurate risks. It has proven difficult for countries with small economies and weak governance systems to attract transnational corporations into infrastructure. The policy challenge is to create the appropriate conditions to facilitate investments that can contribute to poverty alleviation and accelerated development.

There is a need to encourage greater involvement by transnational corporations and to maximize host-country benefits from their technological and other assets. This implies improved governance and capacity-building in host countries, the provision of greater financial and technical support from development partners, and responsible infrastructure investors. A concerted effort by all parties is required. Toward that end, this *Report* offers valuable information and analysis, and I commend it to a wide global readership.

New York, July 2008

Ban Ki-moon
Secretary-General of the United Nations

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TABLE OF CONTENTS

	Page
PREFACE	iii
ACKNOWLEDGEMENTS	iv
OVERVIEW	xvii
 PART ONE RECORD FLOWS IN 2007, BUT SET TO DECLINE	
CHAPTER I. GLOBAL TRENDS	3
A. FDI AND INTERNATIONAL PRODUCTION	3
1. Recent trends in FDI	3
a. Overall trends	3
b. Geographical patterns	7
(i) Developed countries	7
(ii) Developing countries	8
(iii) South-East Europe and CIS	9
c. Sectoral patterns	9
2. International production	9
3. Indices of FDI performance and potential	10
4. New developments in FDI policies	11
a. Developments at the national level	11
b. Developments at the international level	14
(i) Bilateral investment treaties	14
(ii) Double taxation treaties	16
(iii) International investment agreements other than BITs and DTTs	16
(iv) Investor-State dispute settlement	16
(v) Implications of recent developments	17
B. CURRENT FINANCIAL AND MONETARY DEVELOPMENTS AND FDI	18
1. The current financial crisis and FDI flows	18
2. Influence of the falling dollar on FDI decisions	19
C. FDI BY SOVEREIGN WEALTH FUNDS	20
1. Characteristics of SWFs	20
2. Investment patterns	20
3. Growing concerns about SWFs	25
D. THE LARGEST TNCs	26
1. The world's top 100 TNCs	26
2. The top 100 TNCs from developing economies	29
3. Profitability of the largest TNCs	30
4. The world's top 50 financial TNCs	31
E. PROSPECTS	32
CHAPTER II. REGIONAL TRENDS	37
INTRODUCTION	37
A. DEVELOPING COUNTRIES	38
1. Africa	38
a. Geographical trends	38
(i) Inward FDI: increased flows, not just to oil producers	38
(ii) Outward FDI: mainly driven by South Africa	42

	Page
b. Sectoral trends: a rise of inflows to services	42
c. Policy developments.....	43
d. Prospects: commodity prices boost FDI.....	46
2. South, East, South-East Asia and Oceania.....	46
a. Geographical trends.....	47
(i) Inward FDI: widespread increases	47
(ii) Outward FDI: growth led by services and extractive industries	49
b. Sectoral trends: rising flows to all sectors.....	50
c. Policy developments.....	51
d. Prospects: remaining promising	53
3. West Asia.....	53
a. Geographical trends.....	53
(i) Inward FDI: a sustained increase	53
(ii) Outward FDI soared.....	55
b. Sectoral trends: strong focus on services.....	56
c. Policy developments.....	57
d. Prospects: FDI set to remain stable	58
4. Latin America and the Caribbean.....	58
a. Geographical trends.....	58
(i) Inward FDI surged mainly in South America	58
(ii) Outward FDI fell in 2007 after a significant increase in 2006	60
b. Sectoral trends: growth led by primary and natural-resource-based activities.....	60
c. Policy developments.....	63
d. Prospects: growth of inflows and outflows	65
B. SOUTH-EAST EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES ...	66
1. Geographical trends	66
a. Inward FDI: growing market-seeking FDI.....	66
b. Outward FDI: Russian TNCs expanding abroad.....	68
2. Sectoral trends: services dominate.....	69
3. Policy developments	70
4. Prospects: natural resources will continue to attract FDI.....	71
C. DEVELOPED COUNTRIES	72
1. Geographical trends	72
a. Inward FDI: more vibrant in the EU	72
b. Outward FDI: strong net outward investments	75
2. Sectoral trends: significant increase in manufacturing.....	76
3. Policy developments	77
4. Prospects: FDI growth likely to decline in the short term	78
PART TWO	
TRANSNATIONAL CORPORATIONS AND	
THE INFRASTRUCTURE CHALLENGE	
INTRODUCTION	85
CHAPTER III. TNCs IN INFRASTRUCTURE INDUSTRIES	87
A. MAIN FEATURES OF INFRASTRUCTURE INDUSTRIES	
AND EMERGING ISSUES.....	87
1. Characteristics of infrastructure industries	87
2. The infrastructure investment gap in developing countries	92
3. The role of the State and other players in infrastructure industries	94
B. TNC INVOLVEMENT IN INFRASTRUCTURE INDUSTRIES	97
1. Global trends	99

	Page
2. TNC involvement in developing countries	102
C. THE UNIVERSE OF INFRASTRUCTURE TNCs	107
1. Major infrastructure TNCs	107
2. Major infrastructure investors in developing countries by industry	110
3. South-South investors in developing countries	112
D. COMPETITIVE ADVANTAGES, DRIVERS AND STRATEGIES OF INFRASTRUCTURE TNCs	113
1. Sources of competitive advantages	113
2. Drivers, motives and modalities of infrastructure TNCs	116
a. Drivers and motives	116
b. Modalities of TNC involvement	117
3. Internationalization strategies of infrastructure TNCs	118
E. CONCLUSIONS.....	119
CHAPTER IV. IMPACT OF TNC PARTICIPATION ON HOST DEVELOPING COUNTRIES.....	125
A. TNCs' ROLE IN MOBILIZING FINANCIAL RESOURCES AND THE IMPACT ON INVESTMENT IN INFRASTRUCTURE INDUSTRIES.....	126
B. IMPACT ON INDUSTRY PERFORMANCE AND THE PROVISION OF INFRASTRUCTURE SERVICES	129
1. Technology transfer and diffusion.....	130
2. Effects on competition and efficiency.....	131
3. Impact on provision of services and implications for universal access	134
a. Electricity	136
b. Telecommunications.....	137
c. Transport.....	138
d. Water and sanitation	139
C. BROADER DEVELOPMENT IMPACTS AND ISSUES	140
1. Wider economic impacts.....	141
2. Bargaining power and regulatory concerns.....	143
D. CONCLUSIONS.....	144
CHAPTER V. POLICY CHALLENGES AND OPTIONS	149
A. A COMPLEX CHALLENGE	149
B. HOST-COUNTRY POLICIES TO ATTRACT AND BENEFIT FROM TNC PARTICIPATION	150
1. Building the institutional and regulatory framework	150
2. Openness to TNC involvement varies by industry and country.....	152
a. In electricity, openness is the greatest in the generation segment	153
b. Almost all countries allow TNCs to invest in telecommunications	154
c. Water remains highly restricted.....	154
d. Road transport the most open, rail transport the least	155
e. Rising concerns related to the strategic nature of infrastructure	155
3. Investment promotion agencies attach growing importance to infrastructure	157
4. Managing different forms of TNC participation	159
5. Factoring in social objectives.....	161

	Page
C. INTERNATIONAL INVESTMENT AGREEMENTS AND INVESTMENT DISPUTES	162
1. The role of international investment agreements	162
2. Infrastructure-related investment disputes	164
a. Many investment disputes are related to infrastructure.....	164
b. Recent arbitral decisions on core IIA provisions.....	165
(i) Fair and equitable treatment.....	166
(ii) Expropriation.....	166
(iii) Umbrella clause.....	167
3. Conclusions and implications	168
D. THE ROLE OF HOME COUNTRIES AND INTERNATIONAL INSTITUTIONS	169
1. Making better use of official development assistance.....	169
2. Risk-mitigating measures	171
a. Coverage for political risk.....	172
b. Coverage for credit risk.....	174
c. Coverage for currency risk.....	174
3. Capacity-building measures	175
4. Promoting regional infrastructure projects.....	176
E. CONCLUSIONS.....	176
REFERENCES	183
ANNEXES	197
SELECTED UNCTAD PUBLICATIONS ON TNCs AND FDI	289
QUESTIONNAIRE.....	293

Boxes

I.1. Revision of UNCTAD database on cross-border M&As	7
I.2. FDI and national security: the Report of the United States Government Accountability Office	14
I.3. Dollar depreciation FDI flows to the United States: recent empirical findings	21
I.4. What are SWFs?	22
I.5. How are SWFs different from private equity funds?	22
I.6. Norwegian Government Pension Fund: a “gold standard” for governance of SWFs	26
I.7. Infrastructure TNCs in the top 100 largest TNCs	27
I.8. Banking in the Balkans.....	32
II.1. FDI in African LDCs: resource exploitation leads to a second year of growth in inflows	41
II.2. Some measures to shift FDI towards greater value added activities: the case of diamonds in Botswana.....	43
II.3. Changes in national laws and regulations in Africa relating to inward FDI in 2007	44
II.4. COMESA Agreement for a Common Investment Area	45
II.5. Liberalization commitments by Viet Nam under its WTO accession agreement, 2007.....	52
II.6. Turkish outward FDI in textiles.....	57
II.7. The Strategic Industry Law of the Russian Federation.....	71
III.1. Main features of electricity infrastructure.....	90
III.2. Main features of telecommunications infrastructure	90
III.3. Main features of transport infrastructure	91
III.4. Main features of the water industry	91
III.5. Estimating investment needs and financing gaps	92
III.6. India: Financing infrastructure.....	93
III.7. Private sector participation in water infrastructure in developing countries.....	95
III.8. City Power Johannesburg – a successful SOE in infrastructure	95
III.9. Stages of industrial development and infrastructure industries	96
III.10. TNCs and the early globalization of the electricity industry	97
III.11. Selected forms of TNC participation in infrastructure projects.....	98
III.12. Sources of data on TNC involvement in infrastructure	99
III.13. Interpreting data from the World Bank’s PPI Database.....	100
III.14. The largest cross-border M&A deals in infrastructure.....	103
III.15. Divestment by TNCs of infrastructure operations in developing countries	103
III.16. The entry of TNCs in the mobile telephony market in Africa	111

	Page
III.17. UNCTAD survey of infrastructure TNCs	114
IV.1. The Angola-China partnership in infrastructure investment	127
IV.2. The potential for independent domestic power producers: the case of Mauritius	132
IV.3. Risks, renegotiations and TNC withdrawals: implications for performance	135
IV.4. The impact of TNC entry on telecommunications coverage in Uganda: how government policies can influence the outcome of TNC participation	138
IV.5. Universal access to water and the debate on public versus private provision	140
V.1. The OECD Principles for Private Sector Participation in Infrastructure	152
V.2. The ECE Guidebook on public-private partnerships	153
V.3. Recent re-nationalizations in infrastructure	155
V.4. UNCTAD survey on openness to TNCs in infrastructure: some preliminary findings	157
V.5. The UNCTAD-WAIPA survey of IPAs	158
V.6. Establishment rights in IIAs	163
V.7. Vivendi v. Argentina	165
V.8. Telenor v. Hungary	166
V.9. Fraport v. the Philippines	167
V.10. The Infrastructure Consortium for Africa	170
V.11. The Global Partnership on Output-Based Aid	171
V.12. Enhancing rural electrification in Lesotho through the Energy Poverty Action	172
V.13. Investment guarantees by the Multilateral Investment Guarantee Agency	173
V.14. The Grand Inga Hydropower Project	177
V.15. The EU-Africa Infrastructure Trust Fund	178

Box figures

II.1.1. African LDCs: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007	41
V.6.1. Infrastructure-related sectoral patterns of commitments in the GATS	163

Box tables

I.3.1. Regression of changes in foreign assets in the United States on the value of the dollar, quarterly data, 1999–2007 ..	21
I.4.1. Comparison between SWFs and private equity funds, 2007	22
I.7.1. Largest TNCs in infrastructure industries: ranks in 2006 and in the year of entry	27
I.8.1. Largest cross-border M&A deals in the financial sector in the Balkans, 2006–2007	32
II.5.1. Viet Nam: Summary of WTO liberalization commitments on FDI entry in services	52
III.5.1. Asia and Oceania: Varying estimates of infrastructure financing needs for 2006–2010	92
III.6.1. India: estimated annual infrastructure investment needs, financing gaps and FDI flows, various years	93
III.9.1. Stages of development and related infrastructure industries	96
III.11.1. Equity and non-equity forms of TNC involvement in infrastructure	98
III.15.1. Examples of divestment of TNCs in the water industry in Latin America and the Caribbean, 2002–2007	103
III.16.1. Top 10 mobile operators in Africa, ranked by number of local subscribers, 2006	111
V.4.1. Share of countries that legally permit private and foreign companies, respectively, to be involved in selected infrastructure industries, 2008	157

Figures

I.1. FDI inflows, global and by groups of economies, 1980–2007	3
I.2. Profitability and profit levels of TNCs, 1997–2007	4
I.3. Worldwide income on FDI and reinvested earnings, 1990–2007	5
I.4. Reinvested earnings of TNCs: value and share in total FDI inflows, 1990–2007	5
I.5. Value of cross-border M&As, 1998–2008	5
I.6. FDI flows, by region, 2005–2007	8
I.7. Transnationality index for host economies, 2005	12
I.8. Matrix of inward FDI performance and potential, 2006	13
I.9. Regulatory changes, by nature and region, 2007	15
I.10. Number of BITs and DTTs concluded, annual and cumulative, 1998–2007	15
I.11. Top 10 signatories of BITs by end 2007	15
I.12. Total number of BITs concluded, by country group, by end of 2007	16
I.13. Total number of DTTs concluded by country group, by end of 2007	16
I.14. Number of known investor-State arbitrations, annual and cumulative, 1992–2007	17
I.15. Impact of financial instability on FDI flows for 2008–2010	18
I.16. Nominal bilateral exchange rate changes of selected currencies, 2000–2008	19
I.17. Impact of depreciation of the United States dollar on global FDI flows for 2008–2010	19
I.18. FDI inflows to the United States and the real effective exchange rate, 1990–2007	20
I.19. Major FDI locations of sovereign wealth funds, 2007	23

	Page
I.20.	FDI flows by sovereign wealth funds, 1987–2007 23
I.21.	FDI by SWFs, by main host groups and top five host economies, end 2007..... 23
I.22.	FDI by SWFs, by main target sectors and top five target industries, end 2007 24
I.23.	Location intensity of the 20 most preferred host economies, 2007 28
I.24.	TNI values of the top 100 TNCs, 1993–2006..... 29
I.25.	Location intensity of the 20 most preferred host countries for financial TNCs, 2007 33
I.26.	Prospects for global FDI flows over the next three years 33
II.1.	Africa: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007 38
II.2.	FDI inflows to Africa, by component, 1995–2007 39
II.3.	Africa: top 10 recipients of FDI inflows, 2006–2007 40
II.4.	Rates of return on inward FDI by developing regions, 1995–2007 41
II.5.	Africa: FDI outflows, 1995–2007..... 42
II.6.	FDI prospects in Africa, 2008–2010 46
II.7.	South, East and South-East Asia: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007 47
II.8.	South, East and South-East Asia: top 10 recipients of FDI inflows, 2006–2007 48
II.9.	South, East and South-East Asia: FDI outflows, 1995–2007 49
II.10.	South, East and South-East Asia: top 10 sources of FDI outflows, 2006–2007 49
II.11.	FDI prospects in South, East and South-East Asia, 2008–2010 53
II.12.	West Asia: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007 54
II.13.	West Asia: top five recipients of FDI inflows, 2006–2007 54
II.14.	West Asia: FDI outflows, 1995–2007 55
II.15.	West Asia: top five sources of FDI outflows, 2006–2007 56
II.16.	FDI prospects in West Asia, 2008–2010 58
II.17.	Latin America and the Caribbean: FDI inflows in value and as percentage of gross fixed capital formation, 1995–2007 59
II.18.	Latin America and the Caribbean: top 10 recipients of FDI inflows, 2006–2007 59
II.19.	Latin America and the Caribbean: rate of return on inward FDI by subregion, 1995–2007 60
II.20.	Latin America and the Caribbean: FDI outflows, 1995–2007 61
II.21.	Latin America and the Caribbean: top 10 sources of FDI outflows, 2006–2007 62
II.22.	FDI prospects in Latin America and the Caribbean, 2008–2010 65
II.23.	South-East Europe and CIS: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007 66
II.24.	South-East Europe and CIS: top 10 recipients of FDI inflows, 2006–2007 67
II.25.	Inward FDI Performance and Potential indices rankings of selected countries, 2006 67
II.26.	South-East Europe and CIS: FDI outflows, 1995–2007 68
II.27.	Distribution of shares among energy companies involved in the Kashagan project, Kazakhstan, 2007 and 2008..... 70
II.28.	FDI prospects in South-East Europe and CIS, 2008–2010 71
II.29.	Developed countries: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007 72
II.30.	Developed countries: top 10 recipients of FDI inflows, 2006–2007 73
II.31.	Developed countries: FDI outflows, 2006–2007 75
II.32.	Developed countries: top 10 sources of FDI outflows, 2006–2007 76
II.33.	FDI prospects in developed countries, 2008–2010 78
III.1.	Share of foreign and domestic private and public investors in the investment commitments of the infrastructure industries of developing and transition economies, by industry and region, 1996–2006..... 101
III.2.	FDI inflows in electricity, gas and water, and in telecommunications, 1991–2006..... 102
III.3.	Cross-border M&As in infrastructure by target region, 1991–2007 102
III.4.	Cross-border M&A sales in infrastructure by developing target region, 1991–2007..... 104
III.5.	Foreign investment commitments in the infrastructure industries of developing and transition economies, by industry, 1996–2006..... 104
III.6.	Main legal forms of foreign investment commitments in the infrastructure industries of developing and transition economies, by industry, 1996–2006..... 107
III.7.	Significant Chinese and Indian investments in infrastructure in Africa, up to April 2008..... 119
IV.1.	Electricity prices for household users, selected Latin American countries, 1990–2002 136
V.1.	Degree of IPA attention to infrastructure industries, 2008..... 158
V.2.	Promotion instruments, by infrastructure industry or service, 2008 159
V.3.	Number of known infrastructure-related investment disputes, 1996–2007 164

Tables

I.1.	Growth rates of FDI inflows denominated in (United States) dollars and in local currencies, 2006–2007 4
I.2.	Cross-border M&As valued at over \$1 billion, 1987–2008..... 6
I.3.	Cross-border M&As by private equity firms and hedge funds, 1987–2008 6
I.4.	Selected indicators of FDI and international production, 1982–2007 10
I.5.	Sales and value added of foreign affiliates and inward FDI stock in host developing and former transition economies, most recent available year..... 11
I.6.	Top 20 rankings by Inward and Outward FDI Performance Indices, 2006 and 2007

	Page
I.7. National regulatory changes, 1992–2007	13
I.8. Countries with a flat tax rate, 2007	14
I.9. Twenty selected large FDI cases by sovereign wealth funds, 1987–2007	24
I.10. Snapshot of the world's 100 largest TNCs, 2005, 2006.....	27
I.11. Top 15 TNCs, ranked by number of host economies of their affiliates	28
I.12. Comparison of TNI values by region, 2005–2006.....	28
I.13. II values by industries, 2005–2006.....	29
I.14. Snapshot of the world's 100 largest TNCs from developing economies, 2005–2006.....	29
I.15. Top 15 largest TNCs from developing economies ranked by the number of host economies of their affiliates, 2007.....	30
I.16. Transnationality of the largest TNCs from developing economies: TNI and II, by regions, 2006	30
I.17. Transnationality of the largest TNCs from developing economies: TNI and II, by major industries, 2006	31
I.18. Average return on sales of selected industries, 2005–2006	31
I.19. M&A deals of over \$1.5 billion in the financial sector, 2001–2007.....	31
I.20. UNCTAD Survey 2008–2010: the most attractive locations for FDI in the next three years	34
II.1. FDI flows, by economic group and region, 2005–2007.....	37
II.2. Cross-border M&A sales, by sector and by group of economies, 2005–2007.....	38
II.3. Africa: cross-border M&As, by region/economy, 2005–2007	39
II.4. Africa: distribution of FDI flows among economies, by range, 2007.....	40
II.5. Africa: cross-border M&As, by sector/industry, 2005–2007.....	43
II.6. South, East and South-East Asia: distribution of FDI flows among economies, by range, 2007	47
II.7. South, East and South-East Asia: cross-border M&As, by region/economy, 2005–2007.....	48
II.8. South, East and South-East Asia: cross-border M&As, by sector/industry, 2005–2007.....	51
II.9. FDI inflows by sector/industry in ASEAN, 2003–2007	51
II.10. West Asia: cross-border M&As, by region/economy, 2005–2007.....	55
II.11. West Asia: distribution of FDI flows among economies, by range, 2007.....	55
II.12. West Asia: cross-border M&As, by sector/industry, 2005–2007	57
II.13. Latin America and the Caribbean: cross-border M&As, by region/economy, 2005–2007	60
II.14. Latin America and the Caribbean: distribution of FDI flows among economies, by range, 2007.....	61
II.15. Latin America and the Caribbean: cross-border M&As, by sector/industry, 2005–2007	63
II.16. Latin America and the Caribbean: 10 largest cross-border M&A deals in electricity, 2007.....	64
II.17. South-East Europe and CIS: distribution of FDI flows among economies, by range, 2007.....	67
II.18. South-East Europe and CIS: cross-border M&As, by region/economy, 2005–2007	68
II.19. South-East Europe and CIS: cross-border M&As, by sector/industry, 2005–2007	69
II.20. Production of cars by foreign manufacturers in the Russian Federation, actual and announced, 2007.....	69
II.21. Developed countries: distribution of FDI flows among economies, by range, 2007.....	73
II.22. Developed countries: cross-border M&As, by region/economy, 2005–2007	75
II.23. Developed countries: cross-border M&As, by sector/industry, 2005–2007	76
III.1. Infrastructure industries and related activities	89
III.2. Non-competitive and competitive segments of modern infrastructure industries.....	92
III.3. Sub-Saharan Africa: estimated annual infrastructure investment needs in selected industries, 2006–2015	93
III.4. Inward FDI stock in electricity, gas and water, and in transport, storage and communications, by region, 1990, 1995, 2000 and 2006.....	99
III.5. Largest outward FDI stocks in infrastructure industries, latest year available	100
III.6. Cross-border M&As in infrastructure by target industry, 1991–2007	102
III.7. Foreign investment commitments in the infrastructure industries of developing economies, by industry and host region, 1996–2006.....	105
III.8. Industry composition of foreign investment commitments in the infrastructure industries of developing and transition economies, 1996–2006.....	105
III.9. Industry composition of foreign investment commitments in the infrastructure industries of LDCs, 1996–2006	106
III.10. Sources of foreign investment commitments for the infrastructure industries of LDCs, and of developing and transition economies, 1996–2006.....	106
III.11. Largest TNCs in infrastructure industries, ranked by foreign assets, 2006.....	108
III.12. Foreign and total assets of the world's 100 largest infrastructure TNCs, by home economy and region, 2006	108
III.13. The world's 100 largest infrastructure TNCs, and the 50 largest infrastructure TNCs of developing and transition economies: industry breakdown, 2006.....	109
III.14. Foreign and total assets of the 50 largest infrastructure TNCs of developing and transition economies, by home country and region, 2006	109
III.15. Major port operators, ranked by their share in world container port throughput, 2006.....	112
III.16. Share of the top 5 and top 10 investors in total foreign investment commitments in infrastructure industries in developing and transition economies, 1996–2006.....	112
III.17. Origin of foreign investment commitments in the infrastructure industries of Africa, Asia and Oceania and Latin America and the Caribbean, 1996–2006.....	112
IV.1. TNCs' share of private sector investment commitments in developing economies, all infrastructure industries, 1996–2006	129
IV.2. Estimated market share ranges of mobile telecommunications operators with TNC participation in selected countries, end 2007.....	133
IV.3. Indicators of performance improvements in electricity by distributors in Latin America:	

	Page
changes in selected indicators from the year of privatization to 1998	133
IV.4. Top 10 countries by change in UNCTAD ICT Diffusion Index, 1997–2005	138
V.1. Foreign ownership restrictions in telecommunications, selected developing countries, latest year	154
V.2. Private sector and TNC involvement in water projects, selected developing economies, December 2007	156
V.3. Share of IPAs that promote FDI into specific infrastructure industries, by region, 2008	158
V.4. Capacity-building facilities for infrastructure projects in Africa, 2006	175

Annex A

A.I.1. Number of greenfield FDI projects, by source/destination, 2003–2008	199
A.I.2. Number of greenfield FDI projects, by sector/industry, 2003–2008	203
A.I.3. Cross-border M&A deals worth over \$3 billion completed in 2007	204
A.I.4. Various types of cross-border M&A cases in the UNCTAD database	206
A.I.5. Estimated world inward FDI stock, by sector and industry, 1990 and 2006	207
A.I.6. Estimated world outward FDI stock, by sector and industry, 1990 and 2006	208
A.I.7. Estimated world inward FDI flows, by sector and industry, 1989–1991 and 2004–2006	209
A.I.8. Estimated world outward FDI flows, by sector and industry, 1989–1991 and 2004–2006	210
A.I.9. Number of parent corporations and foreign affiliates, by region and economy, latest available year	211
A.I.10. Country rankings by Inward FDI Performance Index, Inward FDI Potential Index and Outward FDI Performance Index, 2005–2007	214
A.I.11. List of major sovereign wealth funds, 2007	216
A.I.12. Largest cross-border M&A deals by sovereign wealth funds ranked 21 st –50 th , 1987–2007	217
A.I.13. Selected cross-border M&A deals by sovereign wealth funds, by target region/economy, 1987–2007	218
A.I.14. Selected cross-border M&A deals by sovereign wealth funds, by industry of the target country, 1987–2007	219
A.I.15. The world's top 100 non-financial TNCs, ranked by foreign assets, 2006	220
A.I.16. The top 100 non-financial TNCs from developing countries, ranked by foreign assets, 2006	223
A.I.17. The top 50 financial TNCs ranked by Geographic Spread Index (GSI), 2006	226
A.II.1. List of strategic industries in the Strategic Industry Law of the Russian Federation of May 2008	227
A.III.1. Inward FDI stock of selected economies in infrastructure, 1990, 1995, 2000 and 2006	229
A.III.2. Outward FDI stock from selected economies in infrastructure, 1990, 1995, 2000 and 2006	235
A.III.3. The 25 largest cross-border M&A deals in infrastructure, 1991–2007	238
A.III.4. The world's 100 largest infrastructure TNCs, ranked by foreign assets, 2006	239
A.III.5. The 50 largest infrastructure TNCs of developing and transition economies, ranked by foreign assets, 2006	241
A.III.6. The 50 largest foreign investors in infrastructure commitments in Africa, 1996–2006	242
A.III.7. The 50 largest foreign investors in infrastructure commitments in Asia, 1996–2006	243
A.III.8. The 50 largest foreign investors in infrastructure commitments in Latin America and the Caribbean, 1996–2006	244
A.V.1. Arbitral awards in known infrastructure investment disputes, 1997–2007	245
A.V.2. Bilateral and multilateral donor commitments to selected infrastructure industries, 1995–2006	247

DEFINITIONS AND SOURCES 249

Annex B

B.1. FDI flows, by region and economy, 2005–2007	253
B.2. FDI stock, by region and economy, 1990, 2000, 2007	257
B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy	261
B.4. Value of cross-border M&As, by region/economy of seller/purchaser, 2005–2008	272
B.5. Number of cross-border M&As, by region/economy of seller/purchaser, 2005–2008	275
B.6. Value of cross-border M&As, by sector/industry, 2005–2008	278
B.7. Number of cross-border M&As, by sector/industry, 2005–2008	279
B.8. Number of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	280
B.9. Employment in foreign affiliates in the host economy and in foreign affiliates of home-based TNCs, 2003–2005	281
B.10. Assets of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	282
B.11. Wages and salaries in foreign affiliates in the host economy and in foreign affiliates of home-based TNCs, 2003–2005	282
B.12. Sales of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	283
B.13. Value added of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	284
B.14. Profits of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	284
B.15. Exports of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	285
B.16. Imports of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	286
B.17. R&D expenditures of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	286
B.18. Royalty receipts and payments of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005	287

ABBREVIATIONS

ADB	Asian Development Bank
AfDB	African Development Bank
ASEAN	Association of Southeast Asian Nations
BIT	bilateral investment treaty
BLO	build, lease and own
BOO	build, own and operate
BOOT	build, own, operate and transfer
BOT	build, operate, transfer
BROT	build, rehabilitate, operate and transfer
CDO	collateralized debt obligation
CIS	Commonwealth of Independent States
COMESA	Common Market for Eastern and Southern Africa
DTT	double taxation treaty
DR-CAFTA	Dominican Republic-Central American Free Trade Agreement (with the United States)
EFTA	European Free Trade Association
EMU	European Monetary Union
EPA	Energy Poverty Action Alliance
ESCAP	Economic and Social Commission for Asia and the Pacific
EU	European Union
FDI	foreign direct investment
FSA	firm-specific advantage
FTA	free trade area (or agreement)
GATS	General Agreement on Trade in Services (of WTO)
GCC	Gulf Cooperation Council
GDP	gross domestic product
GSI	Geographical Spread Index
ICA	Infrastructure Consortium for Africa
ICSID	International Centre for Settlement of Investment Disputes
ICT	information and communications technology
IFC	International Finance Corporation
II	Internationalization Index (of UNCTAD)
IIA	international investment agreement
IMF	International Monetary Fund
IPA	investment promotion agency
IPP	independent power producer
JBIC	Japan Bank for International Cooperation
LAC	Latin America and the Caribbean
LBO	leveraged buyout transaction
LDC	least developed country
M&A	merger and acquisition
MBS	mortgage-backed security
MDG	Millennium Development Goal
MERCOSUR	Southern Common Market (Mercado Común del Sur)
MFN	most-favoured nation
MIGA	Multilateral Investment Guarantee Agency
NEPAD	New Partnership for Africa's Development
OBA	Output-Based Aid
ODA	official development assistance
OECD	Organisation for Economic Co-operation and Development
PCG	partial credit guarantee
PPI	private participation in infrastructure (also PPI Database of the World Bank)
PPP	public-private partnership
PRG	partial risk guarantee
PRI	political risk insurance
ROS	return on sales

ROT	rehabilitate-own-transfer
SADC	Southern African Development Community
SEE	South-East Europe
SEZ	special economic zone
SIC	Standard Industrial Classification
SOE	State-owned enterprise
SWF	sovereign wealth fund
TEU	20-foot equivalent unit
TNC	transnational corporation
TNI	Transnationality Index (of UNCTAD)
UNCITRAL	United Nations Commission on International Trade Law
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
WAIPA	World Association of Investment Promotion Agencies
WEF	World Economic Forum
WIR	World Investment Report

OVERVIEW

RECORD FLOWS IN 2007, BUT SET TO DECLINE

Global FDI flows surpassed the peak of 2000...

After four consecutive years of growth, global FDI inflows rose in 2007 by 30% to reach \$1,833 billion, well above the previous all-time high set in 2000. Despite the financial and credit crises, which began in the second half of 2007, all the three major economic groupings – developed countries, developing countries and the transition economies of South-East Europe and the Commonwealth of Independent States (CIS) – saw continued growth in their inflows. The increase in FDI largely reflected relatively high economic growth and strong corporate performance in many parts of the world. Reinvested earnings accounted for about 30% of total FDI inflows as a result of increased profits of foreign affiliates, notably in developing countries. To some extent, the record FDI levels in dollar terms also reflected the significant depreciation of the dollar against other major currencies. However, even measured in local currencies, the average growth rate of global FDI flows was still 23% in 2007.

FDI inflows into developed countries reached \$1,248 billion. The United States maintained its position as the largest recipient country, followed by the United Kingdom, France, Canada and the Netherlands. The European Union (EU) was the largest host region, attracting almost two thirds of total FDI inflows into developed countries.

In developing countries FDI inflows reached their highest level ever (\$500 billion) – a 21% increase over 2006. The least developed countries (LDCs) attracted \$13 billion worth of FDI in 2007 – also a record high. At the same time, developing countries continued to gain in importance as sources of FDI, with outflows rising to a new record level of \$253 billion, mainly as a result of outward expansion by Asian TNCs. FDI inflows into South-East Europe and the CIS also surged, increasing by 50%, to reach \$86 billion in 2007. The region has thus seen seven years of uninterrupted growth. Outflows from this region similarly soared, to \$51 billion, more than twice the 2006 level. Among developing and transition economies, the three largest recipients were China, Hong Kong (China) and the Russian Federation.

...driven by record values of cross-border M&As.

Continued consolidation through cross-border mergers and acquisitions (M&As) contributed substantially to the global surge in FDI. In 2007, the value of such transactions amounted to \$1,637 billion, 21% higher than the previous record in 2000. Thus, overall, the financial crisis, starting with the sub-prime mortgage crisis in the United States, did not have a visible dampening effect on global cross-border M&As in 2007. On the contrary,

in the latter half of 2007 some very large deals took place, including the \$98 billion acquisition of ABN-AMRO Holding NV by the consortium of Royal Bank of Scotland, Fortis and Santander – the largest deal in banking history – and the acquisition of Alcan (Canada) by Rio Tinto (United Kingdom).

The largest TNCs pursued further expansion abroad...

The production of goods and services by an estimated 79,000 TNCs and their 790,000 foreign affiliates continues to expand, and their FDI stock exceeded \$15 trillion in 2007. UNCTAD estimates that total sales of TNCs amounted to \$31 trillion – a 21% increase over 2006. The value added (gross product) of foreign affiliates worldwide represented an estimated 11% of global GDP in 2007, and the number of employees rose to some 82 million.

The universe of TNCs is expanding. Manufacturing and petroleum companies, such as General Electric, British Petroleum, Shell, Toyota and Ford Motor, retain some of the top positions in UNCTAD's ranking of the 25 largest non-financial TNCs in the world. However, TNCs in services, including in infrastructure, have become increasingly prominent during the past decade: 20 of them featured among the top 100 in 2006, compared with only 7 in 1997.

The activities of the 100 largest TNCs increased significantly in 2006, with foreign sales and foreign employment almost 9% and 7% higher than in 2005, respectively. Growth was particularly high for the 100 largest TNCs from developing countries: in 2006, their foreign assets were estimated at \$570 billion – a 21% increase over 2005. Their countries of origin have changed little over the past 10 years, with companies from East and South-East Asia dominating the list of the top 25 such TNCs.

...while sovereign wealth funds are emerging as new actors on the FDI scene.

A new feature of global FDI is the emergence of sovereign wealth funds (SWFs) as direct investors. Benefiting from a rapid accumulation of reserves in recent years, these funds (with \$5 trillion assets under management) tend to have a higher risk tolerance and higher expected returns than traditional official reserves managed by monetary authorities. Although the history of SWFs dates back to the 1950s, they have attracted global attention only in recent years following their involvement in some large-scale cross-border M&A activities and their major capital

injections into some troubled financial institutions in developed countries.

While the amounts invested by SWFs in the form of FDI remain relatively small, they have been growing in recent years. Only 0.2% of their total assets in 2007 were related to FDI. However, of the \$39 billion investments abroad by SWFs over the past two decades, as much as \$31 billion was committed in the past three years. Their recent activities have been driven by the rapid build up of reserves generated by export surpluses, changes in global economic fundamentals and new investment opportunities in structurally weakened financial firms.

Almost 75% of the FDI by SWFs has been in developed countries, with investments in Africa and Latin America very limited so far. Their investments have been concentrated in services, mainly business services.

Investments by SWFs in the banking industry in 2006-2007 were generally welcomed, owing to their stabilizing effect on financial markets. However, they also prompted some negative public sentiment, with calls to impose regulatory restrictions on investments by these funds, notably on national security grounds. International institutions, such as the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD), are in the process of establishing principles and guidelines relating to FDI by SWFs.

Most national policy changes continued to encourage FDI, though less favourable measures became more frequent.

Despite growing concerns and political debate over rising protectionism, the overall policy trend remains one of greater openness to FDI. UNCTAD's annual survey of changes in national laws and regulations that may influence the entry and operations of TNCs suggests that policymakers are continuing in their efforts to make the investment climate more attractive. In 2007, of the almost 100 policy changes identified by UNCTAD as having a potential bearing on FDI, 74 aimed at making the host country environment more favourable to FDI. However, the proportion of changes that were less favourable to FDI has been increasing over the past few years.

As in 2006, most of the new restrictions introduced were concentrated in the extractive industries, particularly in Latin America (e.g. Bolivia, Ecuador and the Bolivarian Republic of Venezuela), but they were also apparent in other countries as well. Several governments, including those of the United

States and the Russian Federation, adopted stricter regulations with regard to investments in projects that have potential implications for national security. Government concerns also appear to be directed towards investments in certain infrastructure areas and those undertaken by State-owned entities.

The number of international investment agreements (IIAs) continued to grow, reaching a total of almost 5,600 at the end of 2007. There were 2,608 bilateral investment treaties (BITs), 2,730 double taxation treaties (DTTs) and 254 free trade agreements (FTAs) and economic cooperation arrangements containing investment provisions. The shift in treaty-making activity from BITs towards FTAs continued, as did the trend towards renegotiation of existing BITs.

The global financial crisis had a limited impact on FDI flows in 2007, but will begin to bite in 2008.

The sub-prime mortgage crisis that erupted in the United States in 2007 has affected financial markets and created liquidity problems in many countries, leading to higher costs of credit. However, both micro- and macroeconomic impacts affecting the capacity of firms to invest abroad appear to have been relatively limited so far. As TNCs in most industries had ample liquidity to finance their investments, reflected in high corporate profits, the impact was smaller than expected. At the macroeconomic level, developed-country economies could be affected both by the slowdown of the United States economy as well as by the impact of the turmoil in the financial markets on liquidity. As a result, both inflows to and outflows from these countries may decline. On the other hand, the relatively resilient economic growth of developing economies may counteract this risk.

In addition to the credit crunch in the United States, the global economy was also affected by the significant depreciation of the dollar. While it is difficult to isolate the effects of exchange rate changes from other determinants of FDI flows, the sharp weakening of the dollar helped to stimulate FDI to the United States. European FDI to the United States was spurred by the increased relative wealth of European investors and reduced investment costs in the United States. Moreover, companies exporting to the United States have suffered from the exchange rate changes, which have induced them to expand local production in the United States. This is illustrated by changes in the strategy of several European TNCs, particularly

carmakers, that plan to build new or expand existing production facilities in that country.

The slowdown in the world economy and the financial turmoil have led to a liquidity crisis in money and debt markets in many developed countries. As a result, M&A activity has begun to slow down markedly. In the first half of 2008, the value of such transactions was 29% lower than that in the second half of 2007. Corporate profits and syndicated bank loans are also declining. Based on available data, estimated annualized FDI flows for the whole of 2008 are expected to be about \$1,600 billion, representing a 10% decline from 2007. Meanwhile, FDI flows to developing countries are likely to be less affected. UNCTAD's *World Investment Prospects Survey, 2008–2010*, while also suggesting a rising trend in the medium term, points to a lower level of optimism than was expressed in the previous survey, and to more caution in TNCs' investment expenditure plans than in 2007.

In Africa, high commodity prices and rising profitability attracted FDI.

In Africa, FDI inflows grew to \$53 billion in 2007 – a new record. Booming commodity markets, rising profitability of investments – the highest among developing regions in 2006–2007 – and improved policy environments fuelled inflows. LDCs in Africa also registered another year of growth in their FDI inflows. A large proportion of the FDI projects launched in the region in 2007 were linked to the extraction of natural resources. The commodity price boom also help Africa to maintain the relatively high level of outward FDI, which amounted to \$6 billion in 2007.

Despite higher inflows, Africa's share in global FDI remained at about 3%. TNCs from the United States and Europe were the main investors in the region, followed by African investors, particularly from South Africa. TNCs from Asia concentrated mainly on oil and gas extraction and infrastructure. Prospects for increased FDI inflows in 2008 are promising in light of the continuing high prices of commodities, large projects already announced for that year and forthcoming payments from previously concluded cross-border M&As. This will signify a fourth consecutive year of FDI growth. The UNCTAD survey shows that almost all TNCs have maintained or even increased their current levels of investment in Africa.

In South, East and South-East Asia and Oceania, both inward and outward FDI flows rose to their highest levels ever.

FDI flows to South, East and South-East Asia and Oceania were also higher than ever before, reaching \$249 billion in 2007. Most subregions and economies, except Oceania, received higher inflows. A combination of favourable business perceptions, progress towards further regional economic integration, improved investment environments and country-specific factors contributed to the region's performance. China and Hong Kong (China) remained the two top destinations within the region as well as among all developing economies. Meanwhile, India – the largest recipient in South Asia – and most member countries of the Association of Southeast Asian Nations (ASEAN) also attracted larger inflows, as did post-conflict countries and Asian LDCs, such as Afghanistan, Cambodia, Sri Lanka and Timor-Leste.

Overall, prospects for new FDI to the region remain very promising. Sustained economic growth, demographic changes, favourable business sentiments and new investment opportunities were among the main factors contributing to the region's good performance in 2007, and they should continue to attract FDI in the near future.

FDI outflows from South, East and South-East Asia also reached a new high, amounting to \$150 billion, reflecting the growing importance of developing countries as outward investors. Intra- and inter-regional flows are a particularly important feature. But firms are investing in developed countries as well, not least through cross-border M&As. SWFs from the region have emerged as significant investors, contributing to the region's rapidly growing outward FDI stock: this jumped from \$1.1 trillion in 2006 to \$1.6 trillion in 2007.

West Asia also saw record flows in both directions...

FDI in West Asia rose by 12% to \$71 billion, marking a new record and a fifth consecutive year of growth. More than four fifths of the inflows were concentrated in three countries: Saudi Arabia, Turkey and the United Arab Emirates, in that order. A growing number of energy and construction projects, as well as a notable improvement in the business environment in 2007, attracted FDI into members of the Gulf Cooperation Council (GCC). For example, Qatar experienced a significant rise in inflows – more than seven times higher than in 2006.

FDI outflows from the region in 2007 increased for the fourth consecutive year, to \$44 billion –

nearly six times its level in 2004. The GCC countries (Kuwait, Saudi Arabia, the United Arab Emirates, Qatar, Bahrain and Oman, in that order) accounted for 94% of these outflows, reflecting in part their desire to diversify away from oil and gas production through investments by SWFs. Intraregional FDI was significant, particularly from oil-rich countries, as confirmed by a growing number of greenfield projects and the increasing value of cross-border M&As.

FDI inflows into West Asia are expected to rise in 2008, as countries in the region have remained largely unaffected by the sub-prime mortgage crisis, and a significant number of intraregional investment projects are in the pipeline.

... while the surge of FDI into Latin America and the Caribbean was mainly driven by the demand for natural resources.

Latin America and the Caribbean saw inflows rise by 36% to a historic high of \$126 billion. The increase was the highest in South America (66%), where most of the \$72 billion worth of inflows targeted the extractive industries and natural-resource-based manufacturing. Inflows to countries in Central America and the Caribbean (excluding offshore financial centres) increased by 30% to \$34 billion, despite the economic slowdown in the United States. This resilience was partly explained by the dynamism of FDI in mining, steel and banking, which are not oriented primarily towards the United States market.

FDI outflows from the region fell by 17% to \$52 billion, mainly reflecting a return to more “normal” levels of outward investment from Brazil. Latin American TNCs, mainly from Mexico and Brazil, continued to internationalize, competing for leadership in such industries as oil and gas, metal mining, cement, steel, and food and beverages. In addition, many new Latin American companies began emerging in new sectors such as software, petrochemicals and biofuels.

In the extractive industries, in which FDI increased as a result of the high commodity prices, the picture differed between oil and gas and metal mining. In metal mining, the scope for inward FDI is greater, as there are no major State-owned companies in the region, except Codelco in Chile. In oil and gas, by contrast, the dominant position, or even exclusive presence, of State-owned oil and gas companies limits the opportunities for foreign investors. This situation was accentuated in 2007, as a number of countries, including Bolivia, the Bolivarian Republic of Venezuela and Ecuador, adopted policy changes to increase taxation and further restrict or prohibit foreign investment in oil and gas.

FDI to and from Latin America and the Caribbean is expected to increase further in 2008. Inflows would be driven mainly by South America, where high commodity prices and strong subregional economic growth should continue to boost TNCs' profits. However, the level of future inflows into Central America and the Caribbean is uncertain, as the slowdown of the United States economy and a weak dollar could adversely affect their export-oriented manufacturing activities. Outflows are expected to be boosted by TNCs in Brazil and Mexico, which have already announced ambitious investment plans for 2008.

FDI to and from South-East Europe and the Commonwealth of Independent States maintained an upward trend and set new records.

As in most other regions, inflows to and from South-East Europe and the CIS reached unprecedentedly high levels. Inward FDI rose for a seventh consecutive year, to reach \$86 billion – 50% more than in 2006. In the CIS, these inflows were mainly attracted to fast growing consumer markets and natural resources, while those to South-East Europe were associated with privatizations. Inward FDI in the Russian Federation increased by 62%, to \$52 billion.

Outward FDI from South-East Europe and the CIS amounted to \$51 billion, more than double its 2006 level. FDI from the Russian Federation – the main source country in the region – soared to \$46 billion in 2007. Russian TNCs have extended their reach to Africa with the aim of increasing their raw material supplies and their access to strategic commodities. These are needed to support their efforts to increase their downstream presence in the energy industry and their value-added production activities in the metals industry of developed countries.

Whereas most of the national policy changes of the transition economies in 2007 were in the direction of greater openness to FDI, some CIS countries continued to introduce restrictions in the extractive industries and some other strategic industries. The Russian Federation approved the long-discussed Strategic Sector Law, which specifies industries in which foreign investors are allowed only minority

participation. In Kazakhstan, a newly approved natural resources law allows the Government to change existing contracts unilaterally if they adversely affect the country's economic interests in the oil, metal and mineral industries. Nevertheless, FDI flows are expected to be buoyant in these two countries as well as Ukraine.

In developed countries FDI inflows and outflows appear to have peaked.

Despite concerns over the economic uncertainty faced by some developed economies, FDI inflows to developed countries as a whole surged by 33% in 2007, to reach \$1,248 – yet another record. The rise was mainly driven by cross-border M&As, but also by reinvested earnings as a result of high profitability of foreign affiliates. The United States retained its position as the world's largest FDI recipient country. The restructuring and concentration process in the enlarged common market of the EU countries led to a renewed wave of cross-border acquisitions. Large FDI flows to the United Kingdom, France, the Netherlands and Spain drove overall FDI inflows to the EU to \$804 billion – a 43% increase. Japan's FDI inflows grew strongly for the first time since the end of the 1990s.

Developed countries maintained their position as the largest net outward investors, as outflows soared to a record \$1,692 billion. The largest outward investors – the United States, the United Kingdom, France, Germany and Spain (in that order) – accounted for 64% of the total outward FDI of the group.

The policy environment for FDI in a number of developed countries continues to be one of greater openness, with some exceptions. There are, however, growing concerns over the possible negative effects of cross-border investments by SWFs, as well as private equity and hedge funds.

FDI to and from developed countries is expected to fall because of the dampening effects of the financial market crisis, combined with weaker economic growth in these economies. The value of cross-border M&As in developed countries fell considerably in the first half of 2008, compared with the second half of 2007. In UNCTAD's *World Investment Prospects Survey 2008–2010*, 39% of the responding TNCs anticipated an increase in FDI inflows into developed countries compared with more than 50% in last year's survey.

TRANSNATIONAL CORPORATIONS AND THE INFRASTRUCTURE CHALLENGE

There are huge unmet investment needs for infrastructure in developing countries.

The provision of good quality infrastructure is a prerequisite for economic and social development. Indeed it is considered one of the main preconditions for enabling developing countries to accelerate or sustain the pace of their development and achieve the Millennium Development Goals (MDGs) set by the United Nations.

Moreover, the future investment needs of developing countries in infrastructure far exceed the amounts being invested by governments, the private sector and other stakeholders, resulting in a significant financing gap. On average, according to World Bank estimates, developing countries currently invest annually 3–4% of their GDP in infrastructure; yet they would need to invest an estimated 7–9% to achieve broader economic growth and poverty reduction goals.

Partly because of the scale of investment required in infrastructure, there has been a fundamental change in the role of the State around the world. Governments have opened infrastructure industries and services up to much greater involvement by the private sector – including TNCs. After the Second World War, and until the 1980s, infrastructure industries were by and large the purview of the State, sometimes through corporatized forms, such as State-owned enterprises (SOEs). Since then they have been gradually liberalized, though the pace and degree have varied by industry and country. As a result, the relationship between the State and the private sector has evolved, with the State increasingly assuming the role of regulator of activities performed by private, and often foreign, companies. This new relationship will continue to change in response to technological progress, growing experience with private sector involvement and shifting political priorities.

In addition to developing-country TNCs in infrastructure (mentioned below), “new players” in infrastructure have emerged including a heterogeneous set of institutions belonging to two broad groups: private equity investors, and State-owned or Government-linked entities such as sovereign wealth funds.

WIR08 focuses on economic infrastructure, including electricity, telecommunications, water and sewage, airports, roads, railways and seaports

(the last four collectively referred to as transport). Analyses of TNC activities, development effects and policy recommendations need to take into account the main features of these industries. First, infrastructure investments are typically very capital-intensive and complex. Second, infrastructure services often involve (physical) networks, and are frequently oligopolistic or monopolistic in nature. Third, many societies regard access to infrastructure services as a social and political issue. Such services may be considered public goods, in the sense that they should be available to all users, and some, such as water supply, are considered a human right. Fourth, infrastructure industries are a major determinant of the competitiveness of an economy as a whole, and the quality of infrastructure is an important determinant of FDI. Fifth, infrastructure is key to economic development and integration into the world economy.

TNC participation in infrastructure has increased substantially, including in developing and transition economies.

Infrastructure industries account for a rapidly expanding share of the stock of inward FDI. Over the period 1990–2006, the value of FDI in infrastructure worldwide increased 31-fold, to \$786 billion, and that in developing countries increased 29-fold, to an estimated \$199 billion. Throughout the period it continued to grow in most infrastructure industries, but most significantly in electricity and telecommunications, and much less in transport and water. As a whole, the share of infrastructure in total FDI stock globally currently hovers at close to 10% compared to only 2% in 1990.

Another measure, foreign investment commitments in private participation in infrastructure (PPI) projects (which include FDI, but also other investments that are an element of concessions), also indicates that TNCs have invested significantly in developing countries. During the period 1996–2006 such commitments amounted to about \$246 billion, with a concentration in Latin America and the Caribbean between 1996 and 2000 (the region accounted for 67% of commitments); but since the turn of the century TNC participation in PPIs has grown relatively faster in Africa and Asia.

The *group of LDCs* has remained by and large marginalized in the process of globalization

of infrastructure investment, accounting for about 2% of the stock of infrastructure FDI in developing countries in 2006. Their share in the foreign investment commitments in infrastructure industries of developing economies in the period 1996–2006 (of \$246 billion) was a little over 5%.

The form of TNC involvement varies considerably by industry. Telecommunications is the only infrastructure industry in which FDI has been the dominant form of TNC entry in developing and transition economies. In electricity concessions were the most frequent modes of entry (62% of the cases), followed by privatizations and greenfield projects (36%). Foreign participation was also predominantly in the form of concessions in transport infrastructure (more than 80%), and in water (70% of the projects). The water industry also used management and lease contracts relatively frequently (25%).

Developing-country firms are significant infrastructure TNCs and are becoming prominent investors in other developing countries.

Although developed-country TNCs still dominate in infrastructure industries internationally, there has been a marked rise involvement by developing-country TNCs. In some industries, such as telecommunications, they have emerged as major players, and in others, such as transport, they have even become world leaders. Of the top 100 infrastructure TNCs in the world in 2006, 14 were from the United States, 10 from Spain, and 8 each from France and the United Kingdom. However, of the top 100 infrastructure TNCs, no less than 22 were headquartered in a developing or transition economy. The largest number of such firms was from Hong Kong (China) with 5 firms, and Malaysia and Singapore with 3 each.

To varying degrees, TNCs from the South are playing a more prominent role in the infrastructure industries of developing countries, though they do not invest as much as their developed-country counterparts. In *Asia and Oceania*, TNC involvement from other developing economies, especially intraregional investment, is particularly pronounced. In 1996–2006 almost half of foreign investment commitments in infrastructure in Asia and Oceania originated in developing countries, and in two industries (telecommunications and transport), TNCs from the South accounted for the largest share of foreign commitments. In *Africa*, developing-country investors have been dominant in telecommunications (58% of all commitments), but are less important in other infrastructure industries. On average, developing-country firms account for

40% of all commitments in Africa. Finally, in *Latin America and the Caribbean* the role of developing-country investors has been more limited (16% of private commitments). (Note that “all commitments” include any made by the State or SOEs where they have a share in PPI projects. However, investments in infrastructure made solely by the State or SOEs are excluded.)

TNCs in infrastructure derive their competitive advantages from a variety of sources and invest abroad mostly to access markets.

Competitive or ownership advantages of infrastructure TNCs are primarily related to specialist expertise or capabilities, such as network design and operation, engineering skills, environmental know-how, project management capabilities and tacit, hands-on skills. Specialized business models and financial prowess are important in some industries and segments, such as telecommunications.

The majority of infrastructure TNCs invest abroad in order to access the markets of host economies. They aim at benefiting from market opportunities arising from a number of sources, including the liberalization and deregulation in host economies, invitations to tenders for infrastructure projects, and the opening up of host countries to foreign acquisition of local firms (including privatization and acquisition of private firms). Additional motivations for investment can include following clients in the infrastructure business, searching for economies of scale and taking advantage of regional growth opportunities. The primacy of the host country market as a motive for infrastructure TNC involvement in developing economies places LDCs at a disadvantage in attracting them, as they have small markets in general and in infrastructure industries more specifically.

TNCs' mobilization of financial resources for infrastructure investment is rising, but a vast gap remains.

Financial constraints faced by governments were a major reason for an increasing number of developing countries to open up to FDI and TNC participation in infrastructure industries in the 1990s. TNC participation in infrastructure in developing countries has resulted in the inflow of substantial financial resources. The stock of infrastructure FDI in developing countries, an indicator of the extent to which TNC participation mobilizes financial resources, surged after 1990, as mentioned above.

The \$246 billion foreign investment commitments in infrastructure in developing countries during 1996-2006 (also mentioned earlier) represented an average of 29% of all PPI investment commitments. This reflects the importance of TNCs' contribution to these industries in developing countries, with the highest share in Africa (36%).

Despite significant levels of TNC investment in developing-country infrastructure, more of it is required to bridge the vast financing gap: there is need for substantial amounts of additional investment, irrespective of source. For instance, in Africa, total TNC investment commitments in infrastructure during the *decade* spanning 1996-2006 were \$45 billion – an amount that is barely equivalent to the region's current *annual* infrastructure investment needs of \$40 billion.

In a similar vein, investment in infrastructure by foreign companies in the 1990s was connected with a decline in public investment in the sector across much of Latin America. In expectation of a large-scale increase in private sector investment, many countries cut back on public expenditure in infrastructure, but the increase in investment by TNCs (and the domestic private sector) did not fully compensate for this decline. An important lesson from this experience is that TNC participation should not be considered sufficient to provide for a country's investment needs in infrastructure industries; rather, it should be viewed as an important supplement and complement to domestic investments.

TNC investment in developing-country infrastructure affects industry performance ...

TNCs in infrastructure bring both hard technology (e.g. specialist equipment for water purification) and soft technology (e.g. organizational and managerial practices) to their operations in host countries. As regards hard technology in telecommunications, for instance market entry by international operators from both developing and developed countries has contributed to lowering the threshold of access to and usage of information and communication technologies for developing countries. TNCs also transfer soft technology to host-country operations, for instance by re-engineering operational processes, improving procurement and subcontracting practices, and enhancing client records and collection methods. Overall, studies show that in a number of cases the introduction of hard and soft technology by foreign affiliates has helped enhance productivity in services provision, as well as its reliability and quality. However context matters, and performance gains as a consequence of TNC (and more generally

private) involvement depend very much on a well-defined regulatory environment.

The industry-wide impact of technology transfer by TNCs also depends on the diffusion of technology to other firms in the industry through a number of routes of transmission, including joint ventures, mobility of personnel and demonstration effects. For instance, in China's electricity generation industry, TNC participation in large joint-venture projects has involved systematic and comprehensive project management cooperation between foreign investors and their Chinese counterparts. This has enabled the latter to enhance their expertise and efficiency. For the effective diffusion of technology from infrastructure TNCs, the existence of capable domestic enterprises is essential.

The higher the contestability of an infrastructure industry, the more likely it is that TNC participation will contribute to enhanced efficiency through increased competition. For example, in many countries, a competitive market structure has been established in telecommunications as a consequence of technological change and industry reforms. In Uganda, for instance, competition between the national provider and TNCs led to price reductions and a rapid increase in penetration of mobile telephony. Cross-country studies have shown the complementarities between privatization and competition: competition increases the gains from privatization, and vice versa.

On the other hand, in water supply, which is an example of an industry that is still essentially a natural monopoly, the entry of TNCs can result in State monopolies being turned into private, foreign-owned monopolies. This limits competition and thus the scope for efficiency enhancement. In other services, while the entry of TNCs can increase competition and thus efficiency, it may also pre-empt the entry of domestic players or crowd out existing ones. In electricity and telecommunications – both relatively contestable industries – the experience of a number of developing countries indicates that infrastructure TNCs can in some cases be associated with anti-competitive behaviour.

In some developing countries, where domestic capabilities exist, local private participants can enhance their competitiveness and efficiency by collaborating with TNCs in a variety of ways. For example partial privatization, with minority ownership participation by TNCs, has been implemented by developing countries such as Morocco in telecommunications, with favourable results for competition. As an alternative to TNC involvement, some developing countries have also been able to improve the performance of public utilities through corporatization reforms without

direct TNC participation. However, successful cases are mainly in relatively high-income or large developing economies.

...with implications for the provision of infrastructure services and universal access.

The participation of TNCs has generally increased the supply and improved the quality of infrastructure services in host countries, but their impact on prices has varied. In some instances this has caused concern over services being priced beyond the reach of the poor. In particular, the *affordability* of services is jointly determined by the price of services and the disposable income of consumers in an economy. The impact of TNC participation on access to services can thus differ among segments of a society: improvements in industry performance do not necessarily translate into increased availability and affordability of services for all members of a society, especially the poor and people living in rural, remote and economically deprived areas.

Improvements in supply, coverage of services, price and access as a result of TNC participation in developing countries are more pronounced in *telecommunications* than in any other infrastructure industry, especially in mobile telephony. Many developing countries have experienced a “mobile revolution”: new business models introduced by TNCs have enabled the expansion of mobile services into low-income segments. TNC entry into the *transport* industry of developing countries is far more varied than in other areas. International terminal operators, for instance, have considerably improved the quality of services in major ports and thereby increased developing-country connectivity to the global economy.

In contrast to telecommunications, and to a lesser extent transport, the impact in electricity and water has been mixed. The impact of TNC participation on prices, and thus access to electricity and water, depends on political, social and contractual issues, as well as productivity and efficiency gains. In the absence of government subsidies to users, additions to supply capacity and productivity and efficiency improvements may be insufficient to maintain low prices while covering costs. Prices can continue to be subsidized after entry by the private sector, although countries sometimes raise tariffs both to attract companies and to reduce subsidies.

Evidence from a number of developing countries suggests that greater private sector investment – often with TNC involvement – has in many cases led to increased supply capacity and

network connections in *electricity*, and thereby to steady improvements in the reliability and quality of service in the industry. Given the many factors involved, electricity prices have sometimes fallen after TNC entry, but overall there has been no definite trend in prices, up or down. The impact of TNC participation on users’ access to *water* has been disappointing in many cases, though there is some evidence that well-designed schemes for TNC participation have led to significant service expansion. Partly because TNC participation has sometimes not met expectations of improved access, there have been cancellations of water concessions in countries such as Argentina, Bolivia and the Philippines.

In summary, in the telecommunications and transport industries, TNCs have contributed substantially to making services more affordable and accessible. For those services that are considered essential, such as drinking water, if the efficiency improvements achieved by TNCs *cannot* allow them to maintain prices at low levels while covering costs, and the government does not provide subsidies to users, access for the poor is affected. Government policies are critical for all infrastructure industries, but, from a social perspective, more so in the case of electricity and water.

Leveraging TNC participation is a complex policy challenge.

Host countries need to consider when it is appropriate to draw TNCs into the development and management of infrastructure. They also need to find ways of ensuring that projects with TNC involvement lead to the expected development effects. This is a complex policy challenge.

As policy priorities and options vary between countries, so too does the optimal mix of public and private (including TNC) investment. Designing and implementing appropriate policies to harness the potential role of TNCs in infrastructure require adequate skills and capabilities. Governments need to prioritize among competing demands for different projects, establish clear and realistic objectives for the projects chosen, and integrate them into broader development strategies. This means that government agencies have to possess the necessary institutional capacity and skills to guide, negotiate, regulate and monitor the projects. This applies not only at the central level, but also in provincial and municipal governments.

While many developing countries seek foreign investment to develop their physical infrastructure, convincing foreign companies to invest has in many cases become even more challenging. Growing demand in the developed world and in large emerging

economies is leading potential investors to expect higher returns for a given level of risk. This poses a particular problem where large-scale capital investments are needed up-front, where cost-recovery is difficult to achieve and where social concerns are considerable. Project failures and multiple investment disputes have furthermore contributed to a more cautious attitude towards infrastructure projects among overseas investors.

Countries seek greater TNC involvement in infrastructure, but openness varies by industry.

The trend towards opening has been more widespread among developed countries and the relatively advanced developing and transition economies. While the nature of liberalization has varied, all groups of countries are now more welcoming to TNC activities in infrastructure than they were two decades ago.

However, there are significant variations by industry. Openness is the highest in mobile telecommunications, and the lowest in water. Countries are generally more open to TNC involvement in industry segments that are relatively easy to unbundle and expose to competition. Openness also appears to be greater in countries with more developed institutional and regulatory capabilities. At the same time, some governments are becoming more careful about allowing foreign companies to take control of certain infrastructure, including power generation and distribution, port operations and telecommunications. New restrictions have been proposed based on national security or public interest concerns.

These concerns notwithstanding, many countries have moved beyond the removal of barriers to TNC involvement, and are actively promoting it in some areas of infrastructure. Many investment promotion agencies (IPAs) are targeting infrastructure industries. In a survey conducted by UNCTAD and the World Association of Investment Promotion Agencies, about 70% of the IPA respondents stated that they were actively seeking such investment, while only 24% were not. Almost three quarters of the IPAs stated that infrastructure is a more important priority than it was five years ago.

Confirming the broad patterns of openness to TNC involvement, the infrastructure industries most often targeted by IPAs are electricity generation, Internet services and airports. By contrast, the lowest number of IPAs targeted electricity distribution and transmission. Judging from the patterns of investment in LDCs, there may be a case for low-income countries to target TNCs from other developing countries, especially in transport infrastructure.

Securing development gains requires an appropriate governance framework and strong government capabilities.

Without an adequate institutional and regulatory framework, the risk increases that countries will lose out by opening up to TNC participation. Moreover, once a country liberalizes, it is often hard to reverse the process. This is why the sequencing of reforms is important. Ideally, competitive restructuring, the introduction of regulations and the establishment of an independent regulatory agency should precede steps towards opening up. Such a sequence helps clarify the rules of the game for potential investors and makes governments better prepared for engaging in a specific project. However, in reality, opening up to foreign investment has often preceded comprehensive reform, with less positive outcomes as a result. Until credible regulatory bodies can be established, developing countries are likely to be better off keeping their utilities in the public sector.

Inviting TNCs to deliver infrastructure services tends to place more, rather than less, responsibility on public officials. Infrastructure investments typically require the negotiation of contracts between the host country and the foreign investor(s). Contracts provide for a tailor-made agreement that responds to the particular requirements of each project and the intentions of the contracting parties. It is therefore important for countries to develop the expertise to determine the desirable level and forms of TNC involvement, to negotiate and monitor the implementation of projects.

Due to asymmetries of information and experience between a TNC and a host-country government, it is generally difficult for public sector staff to match the resources of the private sector when engaging in contract negotiations. Major TNCs tend to make use of international law firms and other experts specializing in project finance transactions, but this is not always possible for developing countries.

If countries with limited experience decide to involve TNCs in infrastructure projects, it may be advisable for them to start on a small scale rather than adopting a major programme across industries. It may also be useful for them initially to concentrate on less contentious segments of an industry.

Many investment disputes are related to infrastructure.

An issue that has attracted increased attention in recent years is the rise of disputes related to infrastructure investments. At the end of 2007, some 95 disputes (or one third of all known treaty-based investor-State disputes) were related to electricity,

transportation, telecommunications, water and sanitation. The disputes have provoked debate over the implications of international investment agreements (IIAs), and especially BITs.

One side of this debate is concerned that improved protection and certainty for foreign investors has come at the price of too much reduction in the government's regulatory flexibility. It argues that the possibility of investor-State arbitration may have a dampening effect on States' ability to adopt public welfare regulations and other regulations in their citizens' interests. The other side questions whether BITs have been, or ever will be, able to provide the protection they were originally intended to offer investors. TNCs that have seen their cases dismissed or received far lower compensation than what they had claimed will have found that the protection offered through the BITs was less comprehensive than expected.

A review of arbitration decisions shows that less than half of the awards rendered favoured the claimant, and that damages awarded were considerably smaller than the total claims made by investors. The fact that more than 90 known disputes concerned infrastructure shows that concluding IIAs (and the coexistence of IIAs and State contracts) can have significant implications for host States. At the same time, the number of disputes should be seen in the light of the several thousands of IIAs, and a huge number of investment projects in infrastructure. In addition, if renegotiations of contracts are successful, they do not reach the stage of dispute and arbitration. The complexity of related issues, together with the dynamic evolution of the IIA universe and the international case law, underline the importance of capacity-building to ensure that developing-country governments understand the implications of concluding IIAs. They also need to be better equipped to handle potential investment disputes.

Stronger commitments from the international community is needed ...

It is important to consider the potential role of home countries and the international community in facilitating more foreign investments into countries that seek such inflows. This is particularly relevant from the perspective of low-income countries, which lack domestic capabilities and have generally failed to attract significant TNC involvement in infrastructure.

Without some form of subsidies, it is difficult to attract TNC investment into economies, communities and industry segments that are characterized by weak purchasing power and poor records of payment. In these cases, development finance institutions can act

as catalytic financiers. Especially in such industries as electricity, water and transport, there is significant potential for synergies between foreign investment and overseas development assistance (ODA). By making more funds available, development partners and the home countries of the investing firms could play a major role in helping to "crowd in" foreign investment into infrastructure projects in developing countries.

While development partners have recently scaled up their ODA commitments to infrastructure, current levels of support have not recovered from the earlier period of declining lending by multilateral banks, and they have not reached the levels promised in various international forums. Moreover, while development partners are yet to provide all the funds pledged to scale up infrastructure investments in low-income countries, existing funds are not being fully used – a situation that can be referred to as the "infrastructure paradox". Recent assessments show that the liquidity of development finance institutions is very high.

Development partners should honour their commitments related to ODA for infrastructure. Institutions that provide bilateral or multilateral development finance also need to become more willing to take risk and to allocate a greater share of their activities to the needs of low-income countries. In addition, they should keep all options open. While a strong case can often be made for facilitating greater involvement of the private sector, including TNCs, other approaches should not be ruled out. In some projects, notably in water and some electricity segments, there may be strong arguments for keeping the operation of the services in public hands. But also in other industries, weak institutional capabilities may make private-sector involvement too risky. In such situations, international efforts focused on supporting existing public sector producers may be more appropriate. Development partners should therefore give sufficient attention to financing infrastructure projects for which it may not be possible to mobilize private sector involvement.

...including to mitigate risk and build capacity in low-income countries.

Risk-mitigation measures by home countries and international organizations can help in the short term to mobilize private financing of infrastructure projects in developing and transition economies. Special attention may have to be given to measures aimed at mitigating three broad types of risk: political risk (including sub-sovereign and contractual and regulatory risks), credit risk and exchange-rate risks.

Despite the plethora of risk-mitigation instruments available, current programmes are insufficiently tailored to the situation of low-income countries. For example, local currency financing by development finance institutions typically requires a well-established currency swap market. Where such a market exists, intervention by development finance institutions is less likely to be needed. At the same time, risk-mitigation instruments should not be seen as a panacea. Too much risk mitigation may lead to problems of moral hazard and encourage reckless risk-taking on the part of investors and lenders. While risk-mitigation tools can facilitate the mobilization of private debt and equity, they do not make poorly structured projects more viable. This underscores the importance of capacity-building efforts.

Such efforts are especially important in LDCs. Depending on the specific circumstances of each country, assistance may need to be provided for developing legal and regulatory frameworks, assessing different policy and contractual options, preparing project proposals, and monitoring and enforcing laws, regulations and contracts. Considering the nature of the projects, governments at all levels – national, provincial and municipal – are in urgent need of assistance. While positive steps have been taken to meet these needs, current efforts remain vastly insufficient. Disturbingly, funds available for capacity-building are not always fully used.

Advisory services should be geared to provide advice not only on how to encourage investment, but also on how infrastructure can be made to fit into larger development plans and objectives. Most

capacity-building support is currently provided by different financing institutions that often have a direct stake in the different projects. It would be worth exploring a more active role for the United Nations in this context. As a neutral party, the organization could complement existing players by, for example, helping developing-country governments in evaluating infrastructure contracts and developing negotiating skills. Improving the ability of governments in these areas should help secure greater development gains from investment inflows.

* * *

The development of physical infrastructure remains one of the most urgent areas for policymakers to address. The needs are huge, and meeting them will require greater use of the private sector, including TNCs. This applies particularly to LDCs, where infrastructure improvements are critical to their attainment of the MDGs. At the same time, low-income countries are often poorly equipped to both attract TNCs into infrastructure and maximize the benefits from TNC involvement. Whatever mix of private and public sector involvement is chosen, adequate institutions and enforcement mechanisms are essential to ensure efficient and equitable delivery of infrastructure services. Meeting the infrastructure challenge requires a concerted effort by all relevant parties. This implies an appropriate combination of improved governance and capabilities in host countries, greater support from the international community and responsible behaviour on the part of the investors.

Geneva, July 2008



Supachai Panitchpakdi
Secretary-General of the UNCTAD

PART ONE

**RECORD FLOWS IN 2007,
BUT SET TO DECLINE**

CHAPTER I GLOBAL TRENDS

Globally, foreign direct investment (FDI) inflows continued to rise in 2007: at \$1,833 billion, they reached a new record level, surpassing the previous peak of 2000. The financial and credit crisis, which began to affect several economies in late 2007, did not have a significant impact on the volume of FDI inflows that year, but it has added new uncertainties and risks to the world economy. This may have a dampening effect on global FDI in 2008-2009. At the same time, the global FDI market is in a state of flux, making it difficult to predict future flows with any precision.

This chapter examines recent trends in global FDI, cross-border mergers and acquisitions (M&As) and international production. Section A describes their changing geographical and industrial distribution, the relative positions of countries in terms of their transnationalization and inward FDI performance, and recent developments in FDI policies. Section B focuses on the impact of financial crisis that erupted in 2007 and on the depreciation of the dollar on FDI flows. Section C sheds new light on the rise of sovereign wealth funds as

direct investors, and section D presents UNCTAD's latest ranking of the world's largest transnational corporations (TNCs). The final section discusses the prospects for FDI, drawing on an UNCTAD survey of 226 large TNCs.

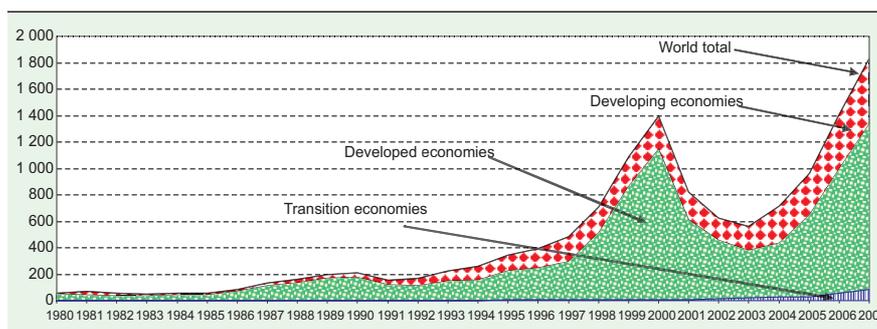
A. FDI and international production

1. Recent trends in FDI

a. Overall trends

Global FDI reached a new record high in 2007, reflecting the fourth consecutive year of growth. With inflows of \$1,833 billion, the previous record set in 2000 was surpassed by some \$400 billion (figure I.1). All the three major groups of economies – developed countries, developing countries and the transition economies of South-East Europe (SEE) and the Commonwealth of Independent States (CIS) – saw continued growth in FDI.

Figure I.1. FDI inflows: global and by groups of economies, 1980–2007
(Billions of dollars)



Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

Since the *WIR* reports the value and growth of FDI flows in United States dollars, their numbers in 2007 could be considered inflated to some extent, due to the significant depreciation of the dollar against other major currencies.¹ Growth rates of dollar-denominated global FDI flows in 2007 diverge from those denominated in local currencies under the current exchange-rate realignment: if denominated in countries' own currencies, the average growth rate of global FDI flows would be 23% in 2006–2007, which is 7% lower than when flows are denominated in United States dollars (table I.1). In all regions and subregions except Central America, FDI inflows grew less in local-currency terms than in dollar terms. The difference was particularly pronounced in the euro zone in 2006–2007, given that the dollar hit a record low against the euro. A similar situation prevailed with respect to flows to South-East Asia, where many Asian currencies (e.g. Malaysian ringgit, Thai baht) appreciated considerably with respect to the dollar. That being said, estimates of global FDI flows in national currencies still point to an increase.

Table I.1. Growth rates of FDI flows denominated in (United States) dollars and in local currencies, 2006–2007
(Per cent)

Host economy	Growth rate of FDI flows denominated in dollars		Growth rate of FDI flows denominated in local currencies ^a	
	2006	2007	2006	2007
World	47.2	29.9	45.5	23.1
Developed economies	53.9	32.6	52.3	24.7
Europe	18.6	41.6	17.3	30.6
EU	12.8	43.0	11.5	31.6
Other developed Europe	421.5	19.9	430.1	14.4
North America	127.3	14.0	124.3	12.1
Developing economies	30.5	21.0	28.9	17.0
Africa	55.3	15.8	53.4	14.1
North Africa	89.2	-3.2	85.9	-5.7
Other Africa	31.2	35.3	30.4	34.4
Latin America	21.6	36.0	18.5	30.6
South America	-3.0	66.9	-7.8	54.9
Central America	1.8	26.6	0.0	27.2
Asia	29.9	17.0	28.9	13.1
West Asia	50.1	11.7	53.4	8.6
South, East and South-East Asia	24.8	18.6	22.6	14.5
East Asia	13.5	18.8	11.8	16.2
South Asia	112.4	18.8	117.5	11.1
South-East Asia	31.1	18.1	25.3	11.8
South-East Europe and CIS	84.6	50.3	78.9	42.2

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and own estimates.

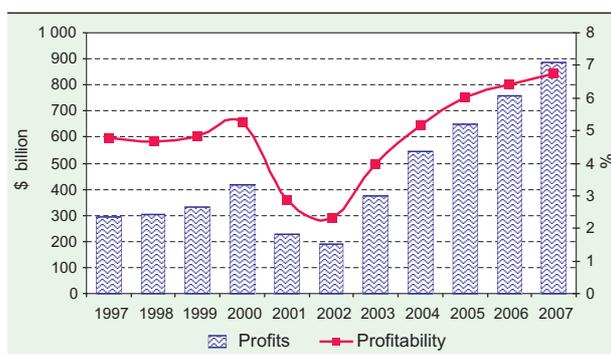
^a Growth rates for world/region are weighted averages of country growth rates. The weight for each country is its share in the starting year in total FDI flows to the world/region denominated in dollars. Weighted growth rate for world/region is calculated using the following formula:

$$\frac{\sum weights_i * growth(x_i)}{\sum weights_i}$$

where the growth rate is calculated on the basis of FDI inflows denominated in local currencies.

The continued rise in FDI in 2007 largely reflected relatively high economic growth and strong economic performance in many parts of the world. Increased corporate profits of parent firms (figure I.2) provided funds to finance investment and reduced the impact of decreasing loans from the banks affected

Figure I.2. Profitability^a and profit levels of TNCs, 1997–2007



Source: UNCTAD, based on data from Thomson One Banker.
^a Profitability is calculated as the ratio of net income to total sales.

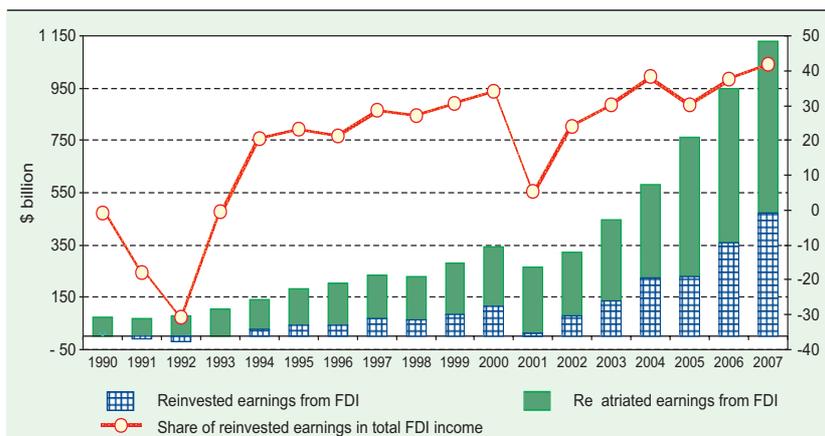
Note: The number of TNCs covered in this calculation is 989.

by the sub-prime credit crisis. In foreign affiliates, higher profits, amounting to over \$1,100 billion in 2007 (figure I.3), contributed to higher reinvested earnings, which accounted for about 30% of total FDI flows in 2007 (figure I.4). These profits are increasingly generated in developing countries rather than in developed countries.²

The growth in FDI flows was also driven by cross-border M&A activity (figure I.5), which expanded in scope across countries and sectors. Its strong growth and a record number of mega deals (i.e. deals with a transaction value of over \$1 billion) (table I.2) pushed the value of total cross-border M&As to a record \$1,637 billion in 2007 (annex tables B.4 and B.6) – 21% higher than even the value in 2000 (figure I.5). The number of such transactions grew by 12% to 10,145 (annex tables B.5 and B.7). While the value of cross-border M&As does not exactly match the value of FDI flows, due to different data collection and reporting methodologies (*WIR00*), UNCTAD's revamping of its database and redefining of “cross-border” (box I.1) should improve the relevance of these data from an FDI perspective.

In addition, large TNCs in most industries remained in good financial health, reporting rising profits. In the financial industry, however, liquidity problems of several transnational banks spurred further consolidation, with participation by a number of sovereign wealth funds (SWFs). Meanwhile, the number of greenfield FDI projects decreased from 12,441 in 2006 to 11,703 in 2007 (annex tables A.I.1–A.I.2).³

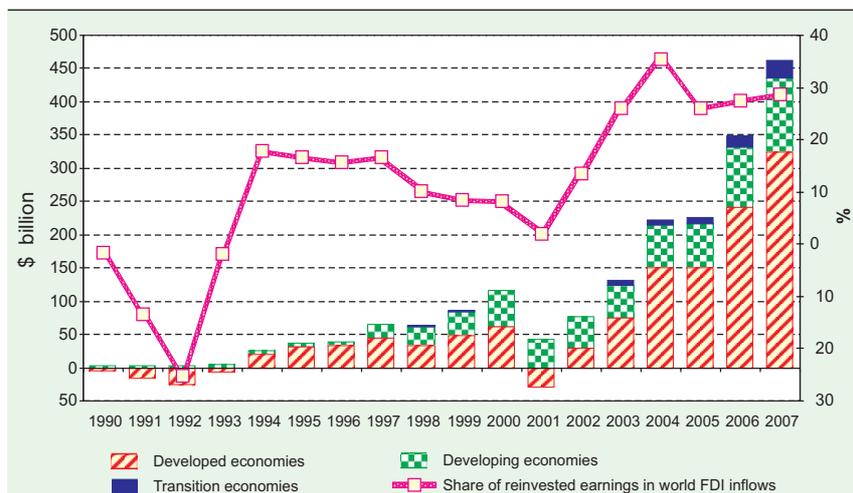
Figure I.3. Worldwide income on FDI and reinvested earnings, 1990–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

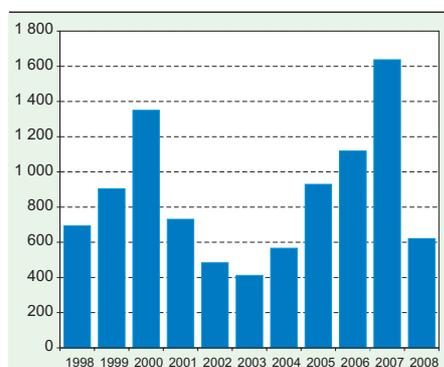
The growth of cross-border M&A activity in recent years, including 2007, was due to sustained strong economic growth in most regions of the world, high corporate profits and competitive pressures that motivated TNCs to strengthen their competitiveness by acquiring foreign firms. In addition, financing conditions for debt-financed M&As were relatively favourable. Despite a change in lending behaviour since mid-2007, caused by a general reassessment of credit risk, the growth of cross-border M&As in the second half of 2007 reached a peak of \$879 billion. This was essentially due to the completion of large deals, many of which had begun earlier. More cautious lending behaviour of banks hampered M&A financing in the first half of 2008 (figure I.5), especially the financing of larger acquisitions, which plummeted to their lowest semi-annual level since the first half of 2006. The number of greenfield projects remained almost at the same level in the first quarter of 2008 as in the previous quarter.

Figure I.4. Reinvested earnings of TNCs: value and share in total FDI inflows, 1990–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Figure I.5. Value of cross-border M&As, 1998–2008 (Billions of dollars)



Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Note: Data for 2008 are only for the first half of the year.

Overall, the financial crisis that began in the second half of 2007 in the United States sub-prime mortgage market did not exert a visible dampening effect on global cross-border M&As that year. The largest deal in 2007, and the largest in banking history – the acquisition of ABN-AMRO Holding NV by the consortium of Royal Bank of Scotland, Fortis and Santander through RFS Holdings BV – took place in late 2007. This period also saw other major mega deals, including the second largest

cross-border M&A, which was between Alcan (Canada) and Rio Tinto (United Kingdom) (annex table A.I.3).

However, the current crisis has led to a liquidity crisis in money and debt markets in many developed countries. This liquidity crisis has begun to depress the M&A business in 2008, especially leveraged buyout transactions (LBOs), which normally involve private equity funds. Indeed, the buyout activities by private equity funds, a major driver of cross-border M&As in recent years, are currently slowing down. This contrasts with the situation in

Table I.2. Cross-border M&As valued at over \$1 billion, 1987–2008^a

Year	Number of deals	Percentage of total	Value (\$ billion)	Percentage of total
1987	19	1.6	39.1	40.1
1988	24	1.3	53.2	38.7
1989	31	1.1	68.2	40.8
1990	48	1.4	83.7	41.7
1991	13	0.3	31.5	27.0
1992	12	0.3	23.8	21.0
1993	18	0.5	37.7	30.5
1994	36	0.8	72.6	42.5
1995	44	0.8	97.1	41.9
1996	48	0.8	100.2	37.9
1997	73	1.1	146.2	39.4
1998	111	1.4	408.8	59.0
1999	137	1.5	578.4	64.0
2000	207	2.1	999.0	74.0
2001	137	1.7	451.0	61.7
2002	105	1.6	265.7	55.0
2003	78	1.2	184.2	44.8
2004	111	1.5	291.3	51.5
2005	182	2.1	569.4	61.3
2006	215	2.4	711.2	63.6
2007	300	3.0	1 161	70.9
Q1	54	2.1	153.7	53.7
Q2	98	3.7	359.4	76.1
Q3	73	2.9	251.3	67.1
Q4	75	3.1	396.9	78.7
2008 ^a	137	3.1	439.4	70.7
Q1	77	3.3	259.7	73.8
Q2	60	2.9	179.7	66.6

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

^a First half only.

2007: cross-border M&As involving such funds almost doubled, to \$461 billion – the highest share observed to date, accounting for over one quarter of the value of worldwide M&As (table I.3).

With the size of the funds growing, private equity investors have been buying larger, and also publicly listed, companies. Some factors have emerged that raise doubts about the sustainability of FDI activity by private equity funds (*WIR07*). These include a review of the favourable tax rates offered to private equity firms by authorities in some countries and the risks associated with the financial behaviour (e.g. high leverage) of such firms, particularly because of concerns about the availability and cost of credit in the aftermath of the sub-prime mortgage crisis. They also include an ongoing debate in some countries about possible regulation of private equity market participants.⁴ An increased regulatory burden could cause the private equity industry to stay away or migrate to more lightly regulated jurisdictions.

Weakened private equity activity reduces the overall amount of FDI in host economies, as such equity can supplement investments by TNCs. In host developing countries, private equity can contribute to the development of a capital market and an equity culture. Such a culture is lacking in many developing-country markets where family-owned and State-owned businesses are dominant. The development of an equity culture can bring in additional capital and lower the cost of funds. From this point of view, the decrease in FDI by private equity funds in 2008 (table I.3) reduces the scope of development of equity markets. However, as long as this slowdown is due to the reduced availability of credit and its increased cost, rather than to tightened regulations, private equity funds are likely to rebound

once the financial markets recover, and they should continue to be important direct investors.

Through its dampening effects on cross-border M&As, the decline of buyout transactions in the current financial market crisis is likely to have depressed FDI flows in the beginning of 2008.⁵ It is difficult for private equity firms to obtain necessary loan commitments from banks for highly leveraged buyouts. While they raised a new record amount of funds totalling \$543 billion in 2007 (Private Equity Intelligence, 2007), their fundraising in the latter half of 2007 declined by 19%, to \$254 billion, compared to the first half of that year. However, the decline can be seen as a normalization or return to a more sound and much more sustainable situation (IMF, 2007; ECB, 2007), and a shift towards distressed debt and infrastructure funds from buyout funds. Several institutions had warned for some time that the credit standards for corporate credits, particularly for highly leveraged buyout loans, were too loose and could represent a danger for the financial system.

Table I.3. Cross-border M&As by private equity firms and hedge funds, 1987–2008^a
(Number of deals and value)

Year	Number of deals		Value	
	Number	Share in total (%)	\$ billion	Share in total (%)
1987	158	13.5	13.4	13.7
1988	203	10.8	12.6	9.2
1989	292	10.7	26.2	15.7
1990	531	15.8	41.0	20.5
1991	648	16.6	28.1	24.0
1992	652	17.5	34.9	30.9
1993	707	17.8	45.3	36.7
1994	720	15.8	35.5	20.8
1995	722	13.1	33.6	14.5
1996	715	12.2	44.0	16.6
1997	782	11.6	55.4	14.9
1998	906	11.3	77.9	11.2
1999	1 147	12.7	86.9	9.6
2000	1 208	12.0	91.6	6.8
2001	1 125	13.9	87.8	12.0
2002	1 126	17.2	84.7	17.5
2003	1 296	19.6	109.9	26.7
2004	1 613	22.2	173.7	30.7
2005	1 707	19.9	211.0	22.7
2006	1 649	18.2	282.6	25.3
2007	1 813	17.9	461.0	28.2
Q1	441	17.1	75.1	26.2
Q2	520	19.7	181.8	38.5
Q3	417	16.6	115.4	30.8
Q4	435	18.0	88.8	17.6
2008 ^a	715	16.4	193.7	31.2
Q1	338	16.8	131.5	37.4
Q2	327	15.9	62.2	23.1

Source: UNCTAD cross-border M&As database.

^a First half only.

Note: Private equity firms and hedge funds refer to acquirers whose industry is classified under "investors not elsewhere classified". This classification is based on that used by the Thomson Finance database on M&As.

Box I.1. Revision of the UNCTAD database on cross-border M&As

Starting with this year's *WIR*, data on cross-border M&As have been revised to cover all cases for which at least one of the four entities (immediate acquiring company, immediate target company, ultimate acquiring company and ultimate target company) is located in an economy other than that of the other entities. Previously, and including the data reported in *WIR07*, cross-border M&As were defined as those deals in which the target company was not located in the same country as the ultimate acquiring company. The data therefore excluded the following kinds of deals: (a) deals where the acquiring domestic company is located in the same country as the acquired foreign company (referred to as case 2 in annex table A.I.4); and (b) deals where the ultimate acquiring foreign company is located in the same country as the acquired domestic company (referred to as case 9). These cases were not considered "cross-border" in the M&A database, even if the economy of the ultimate target company was different from that of the ultimate acquiring company (case 2). (For a brief description of all 11 cases, see annex table A.I.4.) Indeed, there were many transactions categorized under case 2 in Latin America, and these have become an important element of the FDI trend in the region (see section on Latin America and the Caribbean in Chapter II).

International standards for reporting FDI data, as compiled for balance-of-payments purposes, recommend that data be compiled also on the basis of ultimate host and home economy in addition to those on the immediate basis (paragraph 346 of OECD's Benchmark Definition of FDI).^a In reality, compilation based on immediate host and home economy is a common practice used in many countries. All transactions between the direct investor (parent firm) and the direct investment enterprise (foreign affiliate) are recorded as either assets or liabilities in balance-of-payments transactions. Following this recommendation, on the ultimate host/home country basis, although they are undertaken within the same economy, the deals under cases 2, 3, 7 and 8 in annex table A.I.4 should be reflected in FDI flow data.^b In the UNCTAD cross-border M&A database, all transactions are now recorded on the basis of ultimate host (target) and acquiring (home) country. Thus, for example, a deal in which an Argentine domestic company acquired a foreign company operating in Argentina, in the new system this deal is recorded showing Argentina as the acquiring country, and the foreign country is the target country.

The data on cross-border M&As presented in this *WIR* are not strictly comparable to those presented in previous *WIRs*, as there are significant differences in the total number and value of the deals included under the old and new methodologies.

Source: UNCTAD.

^a "FDI statistics should be compiled by immediate partner country using the debtor/creditor principle... (In addition, it is strongly encouraged that supplemental inward FDI position statistics be compiled on an ultimate investing country basis" (OECD, 2008a, paragraph 346).

^b Value of deals under case 2 would be recorded as negative FDI inflows to the host economy (i.e. the economy where the acquired firm is located or from which the sale takes place), while those under cases 3 and 8 would be recorded as (positive). In case 7, as the ultimate host and home country is the same, the value of the deal would be recorded as both divestment and new investment in this economy, and, overall, the net impact on the level of FDI in the host/home country is null.

b. Geographical patterns

Virtually all the major geographical regions registered record inflows as well as outflows in 2007. However, higher growth rates of FDI inflows to developed countries than to developing countries reduced the share of developing countries in FDI inflows from 29% to 27% (annex table B.1). Regarding outflows, the share of developing countries also declined from 16% to 13%. By contrast, the share of economies in transition (i.e. South-East Europe and CIS) rose for both inflows and outflows.

(i) Developed countries

FDI inflows into developed countries grew once again in 2007, for the fourth consecutive year, to reach \$1,248 billion – 33% more than in 2006 (figure I.6; annex table B.1). Flows to the United Kingdom, France and the Netherlands were particularly buoyant. The United States maintained its position as the largest FDI recipient country, while the European Union (EU) as a whole continued to be the largest host region within the developed-country group, attracting

almost two thirds of total FDI inflows to the group in 2007. The increase in FDI inflows to developed countries reflected relatively strong economic growth in those countries in 2007. Continued robust corporate profits and rising equity prices further stimulated cross-border M&As, particularly in the first half of 2007.

Outflows from developed countries in 2007 grew even faster than their inflows. They increased by 56% to the unprecedented level of \$1,692 billion, exceeding inflows by \$445 billion. The continued upswing of outward FDI was mainly driven by greater financial resources from high corporate profits (figure I.2). While the United States maintained its position as the largest source of FDI in 2007, outflows from the EU countries nearly doubled, to \$1,142 billion.

The various risks prevailing in the world economy are likely to influence FDI flows to and from developed countries in 2008. High and volatile commodity prices and food prices may cause inflationary pressures, and a further tightening of financial market conditions cannot be excluded. The growing probability of a recession in the United

States and uncertainties about its global repercussions may cause investors to adopt a more cautious attitude (see section E below). These considerations point to a dimming of FDI prospects in developed countries.

(ii) Developing countries

FDI inflows into developing countries rose by 21% (figure I.6), to reach a new record level of \$500 billion (chapter II). Those to least developed countries (LDCs) alone reached \$13 billion, a 4% increase over the previous year.

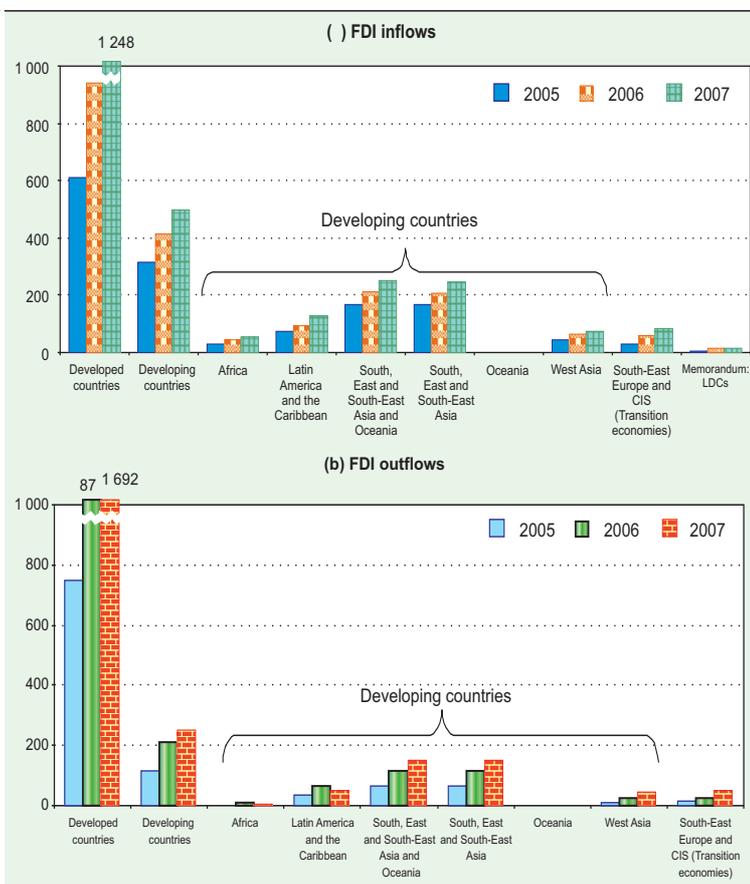
- In *Africa*, FDI inflows in 2007 rose to a historic high of \$53 billion. The inflows were supported by a continuing boom in global commodity markets. Cross-border M&As in the extraction industries and related services continued to be a significant source of FDI, in addition to new inbound M&A deals in the banking industry. Nigeria, Egypt, South Africa and Morocco were the largest recipients (chapter II). These cases may illustrate a trend towards greater diversification of inflows in some countries, away from traditional sectors (e.g. oil, gas and other primary commodities).
- FDI inflows to *South, East and South-East Asia, and Oceania* maintained their upward trend in 2007, reaching a new high of \$249 billion, an increase of 18% over 2006. They accounted for half of all FDI to developing economies. At the subregional level, there was a further shift towards South and South-East Asia, although China and Hong Kong (China) remained the two largest FDI destinations in the region.
- In *West Asia*, overall, inward FDI increased by 12% to \$71 billion, sustaining a period of steady growth in inflows. Turkey and the oil-rich Gulf States continued to attract the most FDI, but geopolitical uncertainty in parts of the region affected overall FDI. Saudi Arabia became the largest host economy in the region, overtaking Turkey.
- FDI inflows into *Latin America and the Caribbean* increased by 36%, to a record level of \$126 billion. Significant increases were recorded in the region's major economies, especially Brazil and Chile where inflows doubled. Contrasting with the experience of the 1990s, the strong FDI growth was driven mainly by greenfield investments (new investments and expansion)

rather than cross-border M&As. This pattern was the result of strong regional economic growth and high corporate profits due to rising commodity prices. Natural-resource-based manufacturing accounted for a large proportion of inward FDI to Brazil, for example.

FDI outflows from the developing world remained high in 2007 at \$253 billion.

- More *African* TNCs expanded their activities within and outside the region, driving FDI outflows from the region to \$7 billion on average in the past two years.
- *South, East and South-East Asia and Oceania*, with FDI outflows of \$150 billion in 2007, has become a significant source of FDI, particularly for other developing countries both within and outside the region.
- With the doubling of FDI outflows from *West Asia* to \$44 billion, this region remains an important source of FDI, led by the countries of the Gulf Cooperation Council (GCC). SWFs based in the subregion have also accounted for a major proportion of FDI.

Figure I.6. FDI flows, by region, 2005–2007
(Billions of dollars)



Source: UNCTAD, annex table B.1 and FDI/TNC database (www.unctad.org/fdistatistics).

- FDI outflows from *Latin America and the Caribbean* fell by 17% in 2007, to around \$52 billion. This was due to the decline in outflows from Brazil to \$7 billion following the exceptionally high level of \$28 billion reached in 2006.⁶

(iii) South-East Europe and CIS

FDI inflows into the transition economies of South-East Europe and CIS increased significantly by 50% to reach a new record of \$86 billion in 2007 – the seventh year of uninterrupted growth of FDI flows to the region. Inflows to the region’s largest recipient, the Russian Federation, rose by 62% (annex table B.1). Interest in the Russian Federation as an FDI destination does not seem to have been greatly affected by the tightening of Russian regulations relating to strategic industries, including natural resources, or by disputes over environmental protection and extraction costs. Thus, overall, FDI inflows into the region remained buoyant.

FDI outflows from South-East Europe and CIS also rose to record levels in 2007, reaching \$51 billion – more than twice as high as the previous year. FDI from the Russian Federation reached a new high in 2007 (\$46 billion).

c. Sectoral patterns

In recent years there has been a significant increase in FDI flows to the primary sector, mainly the extractive industries, and a consequent increase in the share of that sector in global FDI flows and stock (*WIR07*: 22 and annex tables A.I.5-A.I.8). The primary sector’s share in world FDI is now back to a level comparable to that of the late 1980s. The services sector still accounts for the largest share of global FDI stocks and flows, while the share of manufacturing has continued to decline.

In 2006, the primary sector’s share of the estimated total world inward FDI stock stood at 8%, and the sector accounted for 13% of world FDI inflows in the period 2004–2006. There has been some recent levelling off of FDI flows to the primary sector, as indicated by FDI flow data as well as data on cross-border M&As and greenfield investment projects. The value of cross-border M&As in the sector declined from \$156 billion in 2005 to \$109 billion in 2006, and recovered only partially (to \$110 billion) in 2007 (annex table B.6). The increase in FDI in the primary sector in 2007 was more evident in greenfield investments. Their number rose from 463 in 2005 to 490 in 2006 and 605 in 2007 (annex table A.I.2).

Manufacturing accounted for nearly one third of the estimated world inward FDI stock in 2006, but for only a quarter of world FDI inflows in the period

2004–2006 (annex tables A.I.5 and A.I.7). Its share in world inward FDI stock has fallen noticeably since 1990 – in both developed and developing economies – declining by more than 10 percentage points. In 2007, there was a significant upsurge of cross-border M&As in manufacturing, with cross-border M&A deals in that sector rising by over 86%, compared with increases of 1% and 36% in the primary and services sectors respectively (annex table B.6).

The services sector accounted for 62% of estimated world inward FDI stock in 2006, up from 49% in 1990 (annex table A.I.5). Nearly all of the major service groups have benefited from the shift of FDI towards services that began more than a quarter century ago. In the case of some services, such as trade and financial services, the increase began well before 1990, when they accounted for 12% and 20%, respectively, of total inward FDI stock globally. While trade, financial services and business activities continue to account for the lion’s share of FDI in the sector, other services, including infrastructure, have begun to attract increasing shares of FDI since the 1990s. For example, the value of cross-border M&As worldwide in electricity, gas and water rose from \$63 billion (about 6% of total sales) in 2006 to \$130 billion (nearly 8% of the total) in 2007 (annex table B.6). The slow but steady increase in the share of infrastructure industries in FDI, including in developing countries, raises questions as to how FDI can contribute to development in general and to progress towards meeting the Millennium Development Goals (MDGs), in particular, through more and better infrastructure services for the poor. These issues are examined in Part Two of this report.

2. International production

Indicators of international production, such as sales, value added, assets, employment and exports of foreign affiliates, enable a better assessment of the impact of FDI (table I.4). They throw direct light on host-country production activity associated with FDI worldwide, and the importance of foreign affiliates in the world economy. Today, an estimated 79,000 TNCs control some 790,000 foreign affiliates around the world (annex table A.I.9). Their production continues to grow. For example, the value-added activity (gross product) of foreign affiliates worldwide accounted for 11% of global GDP in 2007. Sales amounted to \$31 trillion, about one fifth of which represented exports, and the number of employees reached 82 million.

However, the above discussion at the global level conceals country differences in international production as measured by various indicators. This is why, as of 2007, the *World Investment Report (WIR)* started to analyse one specific indicator of international production: employment in foreign

affiliates. This variable was examined to show the direct impact of FDI on host economies. This year's *WIR* considers another variable frequently used to examine the level of international production: sales of foreign affiliates.

Country-level data show significant differences between countries in the relationship between sales of foreign affiliates and inward FDI stock as well as affiliates' output (table I.5). They also show a noticeable difference between the three sectors: the ratio of sales to inward stock is generally the lowest in the primary sector, and the highest in manufacturing, while that for the services sector falls in between. Sales are generally 5-6 times higher than value added, but there are differences by sector, with a given amount of sales corresponding to more value added in manufacturing than in services. In Latvia, Slovakia and Slovenia, for example, manufacturing generates more value added than in other countries, judging from data on value added per dollar of FDI stock (table I.5). Country and/or sectoral differences reflect the nature of the sales data, which include value added in production in the host country as well as the value

of purchased inputs (imported as well as domestic suppliers). Thus the implications of an increase or decrease in sales for host and home countries may differ somewhat, depending on which of the factors mentioned are relevant. An analysis with regard to exports should be also examined in this context.

The UNCTAD Transnationalization Index of host economies, incorporating both FDI and international production indicators (value added and employment), measures the extent to which a host country's economy is transnationalized (figure I.7). The ranking has not changed much over the years, with Belgium, Hong Kong (China) and the former Yugoslav Republic of Macedonia being the most transnationalized of the developed, developing and transition economies, respectively, in 2005 (the most recent year for which data are available).

3. Indices of FDI performance and potential

Since *WIR02*, UNCTAD has provided indicators to measure the amount of FDI countries

Table I.4. Selected indicators of FDI and international production, 1982–2007

Item	Value at current prices (\$ billion)				Annual growth rate (Per cent)						
	1982	1990	2006	2007	1986-1990	1991-1995	1996-2000	2004	2005	2006	2007
FDI inflows	58	207	1 411	1 833	23.6	22.1	39.9	27.9	33.6	47.2	29.9
FDI outflows	27	239	1 323	1 997	25.9	16.5	36.1	63.5	-4.3	50.2	50.9
FDI inward stock	789	1 941	12 470	15 211	15.1	8.6	16.1	17.3	6.2	22.5	22.0
FDI outward stock	579	1 785	12 756	15 602	18.1	10.6	17.2	16.4	3.9	20.4	22.3
Income on inward FDI	44	74	950	1 128	10.2	35.3	13.1	31.3	31.1	24.3	18.7
Income on outward FDI	46	120	1 038	1 220	18.7	20.2	10.2	42.4	27.4	17.1	17.5
Cross-border M&As ^a	..	200	1 118	1 637	26.6 ^b	19.5	51.5	37.6	64.2	20.3	46.4
Sales of foreign affiliates	2 741	6 126	25 844 ^c	31 197 ^c	19.3	8.8	8.4	15.0	1.8 ^e	22.2 ^e	20.7 ^e
Gross product of foreign affiliates	676	1 501	5 049 ^d	6 029 ^d	17.0	6.7	7.3	15.9	5.9 ^d	21.2 ^d	19.4 ^d
Total assets of foreign affiliates	2 206	6 036	55 818 ^e	68 716 ^e	17.7	13.7	19.3	-1.0	20.6 ^e	18.6 ^e	23.1 ^e
Export of foreign affiliates	688	1 523	4 950 ^f	5 714 ^f	21.7	8.4	3.9	21.2	12.8 ^f	15.2 ^f	15.4 ^f
Employment of foreign affiliates (thousands)	21 524	25 103	70 003 ^g	81 615 ^g	5.3	5.5	11.5	3.7	4.9 ^g	21.6 ^g	16.6 ^g
GDP (in current prices)	12 083	22 163	48 925	54 568 ^h	9.4	5.9	1.3	12.6	8.3	8.3	11.5
Gross fixed capital formation	2 798	5 102	10 922	12 356	10.0	5.4	1.1	15.2	12.5	10.9	13.1
Royalties and licence fee receipts	9	29	142	164	21.1	14.6	8.1	23.7	10.6	10.5	15.4
Exports of goods and non-factor services	2 395	4 417	14 848	17 138	11.6	7.9	3.8	21.2	12.8	15.2	15.4

Source: UNCTAD, based on its FDI/TNC database (www.unctad.org/fdi statistics), UNCTAD, *GlobStat*, and IMF, *International Financial Statistics*, June 2008.

^a Data are only available from 1987 onward.

^b 1987-1990 only.

^c Data for 2006 and 2007 are based on the following regression result of sales against inward FDI stock (in \$ million) for the period 1980-2005: sales=1 484.6302+1.9534* inward FDI stock.

^d Data for 2006 and 2007 are based on the following regression result of gross product against inward FDI stock (in \$ million) for the period 1982-2005: gross product=591.8813+0.3574* inward FDI stock.

^e Data for 2006 and 2007 are based on the following regression result of assets against inward FDI stock (in \$ million) for the period 1980-2005: assets=-2 874.9859+4.7066* inward FDI stock.

^f For 1995-1997, based on the regression result of exports of foreign affiliates against inward FDI stock (in \$ million) for the period 1982-1994: exports=138.9912+0.6414* FDI inward stock. For 1998-2007, the share of exports of foreign affiliates in world exports in 1988 (33%) was applied to obtain the value.

^g Based on the following regression result of employment (in thousands) against inward FDI stock (in \$ million) for the period 1980-2005: employment=1 7164.7284+4.2372* inward FDI stock.

^h Based on data from the IMF, *World Economic Outlook*, April 2008.

Note: Not included in this table are the values of worldwide sales by foreign affiliates associated with their parent firms through non-equity relationships and the sales of the parent firms themselves. Worldwide sales, gross product, total assets, exports and employment of foreign affiliates are estimated by extrapolating the worldwide data of foreign affiliates of TNCs from Austria, Canada, the Czech Republic, Finland, France, Germany, Italy, Japan, Luxembourg, Portugal, Sweden and the United States for sales; those from the Czech Republic, Portugal, Sweden and the United States for gross product; those from Austria, Germany, Japan and the United States for assets; those from Austria, the Czech Republic, Japan, Portugal, Sweden and the United States for exports; and those from Austria, Germany, Japan, Switzerland and the United States for employment, on the basis of the shares of those countries in world outward FDI stock.

receive or invest abroad relative to the size of their economies (Inward FDI Performance Index and Outward FDI Performance Index respectively), and their potential to attract FDI flows (Inward FDI Potential Index).⁷ In 2007, among the top 20 economies listed by the Performance Indices for both inward and outward FDI, relatively small countries continued to rank high (table I.6; annex table A.I.10). The trend has not changed significantly over the past few years. Notable changes include the move upwards of Cyprus, Egypt and the Republic of Moldova among the top 20 rankings for inward FDI performance, and Austria, Denmark and the United Kingdom for outward FDI performance.

The ranking of countries according to the UNCTAD Performance and Potential Indices yields the following matrix: front-runners (i.e. countries with high FDI potential and performance); above potential (i.e. countries with low FDI potential but strong performance); below potential (i.e. countries with high FDI potential but low performance); and under-performers (i.e. countries with both low FDI potential and performance). In 2006 (not 2007 because of data limitations for deriving the Potential Index), Oman, Saudi Arabia, Sweden and Tunisia joined the group of front-runners, and Nigeria, Peru and Togo joined the above-potential group (figure I.8).

4. New developments in FDI policies

a. Developments at the national level

Despite growing concerns and political debate over rising protectionism,⁸ the overall policy trend continues to be towards greater openness towards FDI. UNCTAD's annual survey of changes in national laws and regulations that may influence the entry and operations of TNCs suggests that policymakers are continuing to seek ways of making the investment climate in their countries more attractive. In 2007, only 98 policy changes that affect FDI were identified by UNCTAD – the lowest number since 1992. The nature of the changes was similar to that observed over the past few years: 24 of the 98 changes were less favourable, most of which were related to extractive industries or reflected national security concerns; the remaining 74 changes were in the

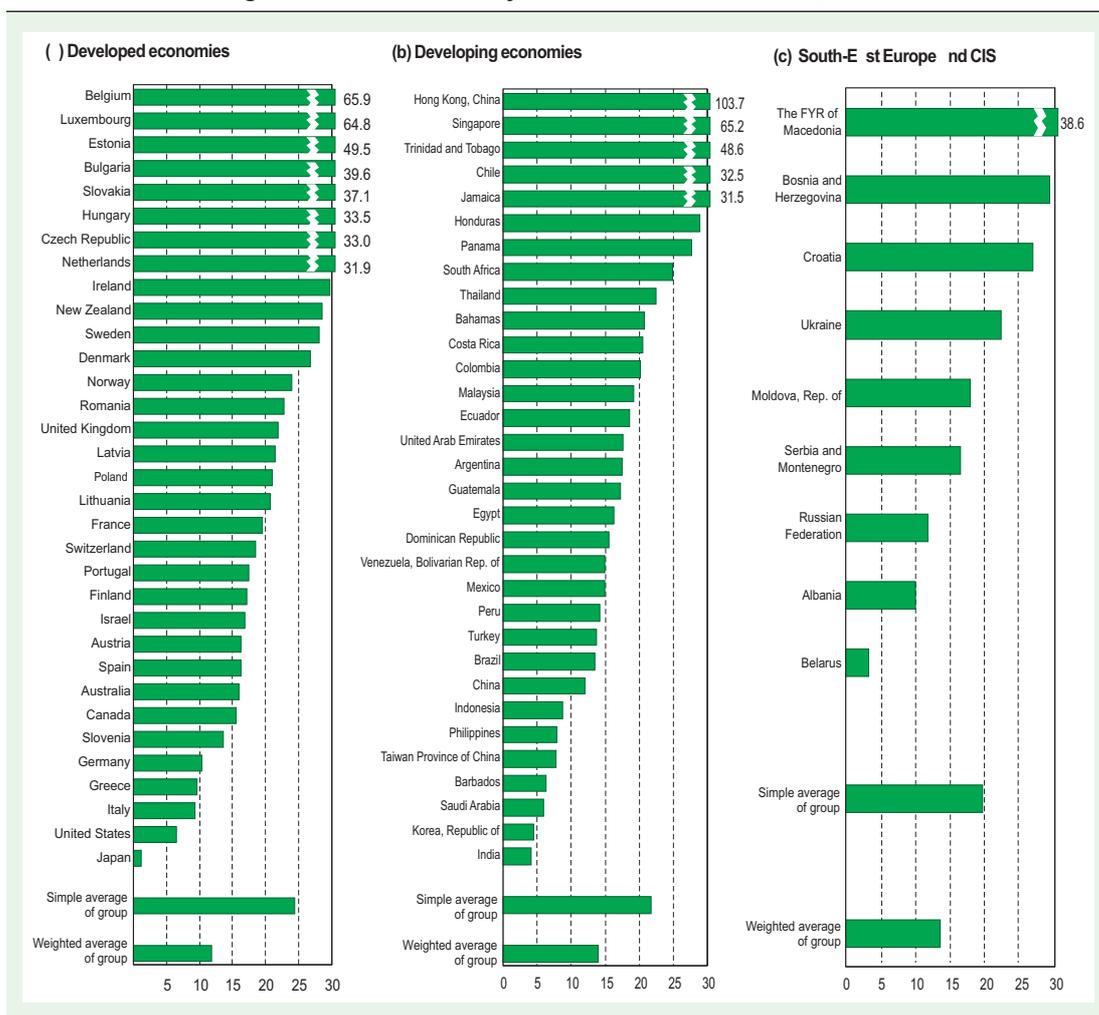
direction of making the host-country environment more favourable to FDI (table I.7).

Many countries adopted new measures to attract FDI, such as offering various incentives or the establishment of special economic zones (SEZs). There was an ongoing trend to lower corporate income taxes in both developed and developing countries, and the number of countries with flat tax systems⁹ continued to grow (table I.8). For example, while Iceland's corporate income tax rate has been cut steadily, from 50% in the late 1980s to the current level of 18%, in 2007 the country introduced a flat rate of

Table I.5. Sales and value added of foreign affiliates and inward FDI stock in host developing and former transition economies, most recent available year

Host economy	Year	Sector	Sales (\$ million)	Value added (\$ million)	Inward FDI stock (\$ million)	Ratio of sales to inward FDI stock (in \$)	Ratio of value added to inward FDI stock (in \$)
Bulgaria	2004	Total	17 861	3 000	10 108	1.8	0.3
		Primary	..	..	156	..	..
		Manufacturing	8 593	1 387	2 611	3.3	0.5
		Services	9 269	1 613	7 263	1.3	0.2
China	2004	Total	698 718	..	245 467	2.8	..
		Primary	3 259	..	10 637	0.3	..
		Manufacturing	676 445	..	163 645	4.1	..
		Services	19 014	..	71 185	0.3	..
Czech Republic	2005	Total	112 535	22 347	60 662	1.9	0.4
		Primary	360	106	363	1.0	0.3
		Manufacturing	56 768	11 404	23 112	2.5	0.5
		Services	55 407	10 836	37 188	1.5	0.3
Estonia	2004	Total	8 362	1 789	10 064	0.8	0.2
		Primary	42	12	102	0.4	0.1
		Manufacturing	3 130	796	1 686	1.9	0.5
		Services	5 190	980	8 250	0.6	0.1
Hong Kong, China	2004	Total	232 772	45 760	453 060	0.5	0.1
		Manufacturing	9 362	2 051	8 836	1.1	0.2
		Services	223 399	43 707	435 890	0.5	0.1
Hungary	2005	Total	104 502	16 949	61 886	1.7	0.3
		Primary	..	45	271	..	0.2
		Manufacturing	56 583	11 525	22 847	2.5	0.5
		Services	47 919	5 379	31 116	1.5	0.2
Latvia	2004	Total	8 380	1 648	4 529	1.9	0.4
		Primary	..	..	97	..	..
		Manufacturing	1 402	420	534	2.6	0.8
		Services	6 978	1 228	3 382	2.1	0.4
Lithuania	2005	Total	14 008	2 444	8 211	1.7	0.3
		Primary	..	..	113	..	..
		Manufacturing	6 957	1 289	3 250	2.1	0.4
		Services	7 051	1 155	4 847	1.5	0.2
Romania	2005	Total	39 864	7 354	25 818	1.5	0.3
		Primary	..	..	1 890	..	..
		Manufacturing	17 999	3 427	9 638	1.9	0.4
		Services	21 865	3 926	14 106	1.6	0.3
Singapore	2002	Total	61 313	..	38 282	1.6	..
		Manufacturing	61 313	..	38 282	1.6	..
Slovakia	2005	Total	42 308	6 814	13 053	3.2	0.5
		Primary	..	..	138	..	..
		Manufacturing	26 719	4 605	5 235	5.1	0.9
		Services	15 589	2 209	7 680	2.0	0.3
Slovenia	2005	Total	14 954	1 735	7 055	2.1	0.2
		Primary	11	0	6	1.8	0.0
		Manufacturing	7 330	1 735	3 085	2.4	0.6
		Services	7 613	0	3 969	1.9	0.0

Source: UNCTAD, based on data from its FDI/TNC database (www.unctad.org/fdistatistics) and data provided by Eurostat.

Figure I.7. Transnationality index^a for host economies,^b 2005

Source: UNCTAD estimates.

^a Average of the four shares: FDI inflows as a percentage of gross fixed capital formation for the past three years 2003-2005; FDI inward stocks as a percentage of GDP in 2005; value added of foreign affiliates as a percentage of GDP in 2005; and employment of foreign affiliates as a percentage of total employment in 2005.

^b Only the economies for which data for all of these four shares are available were selected. Data on value added were available only for Australia (2001), Austria (2003), Belarus (2002), Bulgaria, China (2003), Czech Republic, Estonia (2004), France, Hong Kong (China), Hungary, Italy (2004), Ireland (2001), Japan, Latvia (2004), Lithuania, Republic of Moldova, Netherlands (2004), Singapore (manufacturing only, 2004), Portugal, Romania, Slovakia, Slovenia (2004), Spain, Sweden, and the United States. For Albania, the value added of foreign owned firms was estimated on the basis of the per capita inward FDI stocks and the corresponding ratio refers to 1999. For the other economies, data were estimated by applying the ratio of value added of United States affiliates to United States outward FDI stock to total inward FDI stock of the country. Data on employment were available only for Australia (2001), Austria (2003), Bulgaria, China (2004), Czech Republic, Estonia (2004), France (2003), Germany, Hungary, Hong Kong (China) (2004), Italy (2004), Ireland (2001), Japan, Latvia (2004), Lithuania, Luxembourg (2003), Netherlands (2004), Poland (2000), Portugal, Republic of Moldova (2004), Romania, Singapore (manufacturing only, 2004), Slovakia, Slovenia (2004), Spain, Sweden, Switzerland and the United States. For the remaining countries, data were estimated by applying the ratio of employment of Finnish, German, Japanese, Swedish, Swiss and United States affiliates to Finnish, German, Japanese, Swedish, Swiss and United States outward FDI stock to total inward FDI stock of the economy. Data for Ireland and the United States refer to majority-owned foreign affiliates only. Value added and employment ratios were taken from Eurostat for the following countries: Austria, Bulgaria, Czech Republic, Estonia, Finland, Hungary, Italy, Latvia, Lithuania, Netherlands, Portugal, Romania, Slovakia, Slovenia, Spain and Sweden.

10% on income from interest, dividends, capital gains and rents. Tax reductions were also implemented in Colombia (from 38.5% to 33%), Bulgaria (from 15% to 10%) and the former Yugoslav Republic of Macedonia (flat corporate income tax rate of 10%). Reduced corporate taxes are often justified by the need to stay competitive as locations for inward FDI.

Other countries introduced new promotional measures or improved their existing ones. In March 2007, for example, the United States Department of Commerce launched the Invest in America initiative, the first Federal-level plan to encourage foreign investment since the 1980s (chapter

II.C).¹⁰ Besides promoting the United States as an investment destination, it will serve as a contact point for international investors, and support State and municipal level efforts to attract inward FDI. Other countries, including Honduras, Peru and the Russian Federation, introduced special taxes and/or tariff regimes in SEZs and other zones. The overall trend towards providing more incentives to foreign investors was accompanied by continued liberalization of various economic activities, ranging from reinsurance services in Brazil to fixed-line telephony in Latvia.

As in 2006, the extractive industries represented the main exception to the liberalization

Table I.6. Top 20 rankings by Inward and Outward Performance Indices, 2006 and 2007^a

Economy	Inward FDI Performance Index ranking		Economy	Outward FDI Performance Index ranking	
	2006	2007		2006	2007
Hong Kong, China	2	1	Luxembourg	3	1
Bulgaria	3	2	Iceland	1	2
Iceland	4	3	Hong Kong, China	2	3
Malta	5	4	Switzerland	4	4
Bahamas	8	5	Panama	5	5
Jordan	7	6	Belgium	7	6
Singapore	6	7	Netherlands	6	7
Estonia	9	8	Kuwait	12	8
Georgia	15	9	Bahrain	11	9
Lebanon	13	10	Singapore	8	10
Guyana	20	11	Ireland	9	11
Bahrain	12	12	Sweden	13	12
Belgium	10	13	Spain	14	13
Gambia	11	14	France	18	14
Panama	16	15	Estonia	17	15
Mongolia	19	16	United Kingdom	21	16
Tajikistan	18	17	Israel	15	17
Cyprus	24	18	Norway	16	18
Moldova, Republic of	27	19	Austria	23	19
Egypt	31	20	Denmark	33	20

Source: UNCTAD, annex table A.I.10.

^a Countries are listed in the order of their 2007 rankings. Rankings based on indices derived using three-year moving averages of data on FDI flows and GDP for the three years immediately preceding the year in question including that year.

trend (see *WIR07*). On the back of further increases in commodity prices, several natural-resource-exporting countries introduced new sectoral or ownership restrictions.¹¹ In Bolivia, the State-owned oil company, YPF, reclaimed full control of two main oil refineries from Petrobras (Brazil). The Government also announced plans to increase taxes substantially on mining companies. Ecuador similarly raised the State's share of the profits gained in the hydrocarbons sector. Meanwhile, the Government of the Bolivarian Republic of Venezuela took control of a number of oil projects, including the Cerro Project, resulting in the filing of new claims by the foreign investor, ExxonMobil (United States).¹² While this trend was the most prominent in Latin America (*WIR07* and chapter II of this report), it was also evident elsewhere. In Kazakhstan, for example, the Government announced

a review of all contracts relating to the exploitation of natural resources, ostensibly to ensure that licence terms were not being violated. As a result, foreign investors may face more onerous contract terms. However, to what extent these will deter prospective investors remains uncertain, given Kazakhstan's large oil resources and the high price of oil.

The nature and significance of other changes not favourable to FDI have varied. The most common reasons for countries' concerns over increased foreign ownership were related to national security, especially with regard to investments by SWFs and State-owned firms. For example, in the United States and the Russian Federation, stricter regulations were adopted concerning foreign investment projects with potential implications for national security. Reflecting the changing economic and political conditions in the world economy, the United States Government Accountability Office (GAO) reviewed this trend in a report covering 11 countries (box I.2) and concluded that "each country has changed or considered changing its foreign investment laws, policies, or processes in the last 4 years; many of the changes demonstrate an

Figure I.8. Matrix of inward FDI performance and potential, 2006

	High FDI performance	Low FDI performance
High FDI potential	Front-runners Azerbaijan, Bahamas, Bahrain, Belgium, Brunei Darussalam, Bulgaria, Chile, Croatia, Cyprus, the Czech Republic, the Dominican Republic, Estonia, Hong Kong (China), Hungary, Iceland, Israel, Jordan, Kazakhstan, Latvia, Lithuania, Luxembourg, Malaysia, Malta, Mongolia, the Netherlands, New Zealand, Oman, Panama, Poland, Romania, Saudi Arabia, Singapore, Slovakia, Sweden, Thailand, Trinidad and Tobago, Tunisia, Ukraine, United Arab Emirates and the United Kingdom.	Below potential Algeria, Argentina, Australia, Austria, Belarus, Brazil, Canada, China, Denmark, Finland, France, Germany, Greece, Ireland, Islamic Republic of Iran, Italy, Japan, Kuwait, the Libyan Arab Jamahiriya, Mexico, Norway, Portugal, Qatar, the Republic of Korea, the Russian Federation, Slovenia, Spain, Switzerland, Taiwan Province of China, the United States and the Bolivarian Rep. of Venezuela.
	Above potential Albania, Armenia, Botswana, Colombia, Congo, Costa Rica, Egypt, Ethiopia, the Gambia, Georgia, Guinea, Guyana, Honduras, Jamaica, Kyrgyzstan, Lebanon, Moldova, Namibia, Nicaragua, Nigeria, Peru, Sierra Leone, Sudan, Tajikistan, The FYR of Macedonia, Togo, Uganda, the United Republic of Tanzania, Uruguay, Viet Nam and Zambia.	Under-performers Angola, Bangladesh, Benin, Bolivia, Burkina Faso, Cameroon, Côte d'Ivoire, the Democratic Republic of the Congo, Ecuador, El Salvador, Gabon, Ghana, Guatemala, Haiti, India, Indonesia, Kenya, Madagascar, Malawi, Mali, Morocco, Mozambique, Myanmar, Nepal, Niger, Pakistan, Papua New Guinea, Paraguay, Philippines, Rwanda, Senegal, South Africa, Sri Lanka, Suriname, the Syrian Arab Republic, Turkey, Uzbekistan, Yemen and Zimbabwe.
Low FDI potential		

Source: UNCTAD, based on annex table A.I.10.

increased emphasis on national security concerns" (United States GAO, 2008: 3).

The growing role of SWFs as overseas investors has triggered much policy discussion (section C). Germany has been actively working with the EU to establish rules for those funds at the European level. The main concern among some developed countries appears to be that the funds may buy stakes in strategic industries to gain access to and knowledge of latest

Table I.7. National regulatory changes, 1992–2007

Item	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Number of countries that introduced change	43	56	49	63	66	76	60	65	70	71	72	82	103	92	91	58
Number of regulatory changes	77	100	110	112	114	150	145	139	150	207	246	242	270	203	177	98
More favourable	77	99	108	106	98	134	136	130	147	193	234	218	234	162	142	74
Less favourable	0	1	2	6	16	16	9	9	3	14	12	24	36	41	35	24

Source: UNCTAD database on national laws and regulations.

technology (box I.2). In addition to the above national security concerns, resistance to investment in 2007 was also a response to planned takeovers of “national champions”, as illustrated by the failed bid by E.ON (Germany) for the national utility company, Endesa (Spain).

Developed countries accounted for 36 of the identified regulatory changes (26 of which were in Europe), while in developing and transition economies, there were 15 identified changes in Africa, 14 in South, East and South-East Asia, 10 in Latin America and the Caribbean, 8 in West Asia, 8 in CIS and 7 in South-East Europe. A relatively high proportion of the observed regulatory changes were “less favourable” in Latin America and the Caribbean. This mainly reflected regulatory amendments (discussed above) for the extractive industries (figure I.9). Notable regional differences remain. FDI policy changes at the regional level are described in more detail in the respective regional trend sections in chapter II of this *WIR*.

Table I.8. Countries with a flat tax, 2007
(Percentage tax rate)

Economy	Individual	Corporate
Estonia	22	24
Georgia	12	20
Hong Kong (China)	16	17.5
Iceland	36	18
Kyrgyzstan	10	10
Latvia	25	15
Lithuania	27	15
Mongolia	10	25
Romania	16	16
Russian Federation	13	24
Slovakia	19	19
The FYR of Macedonia	12	10
Ukraine	15	25

Source: UNCTAD, based on Mitchell, 2007.

b. Developments at the international level

In 2007, the universe of international investment agreements (IIAs) continued to expand, with a marked variation among regions. Fewer bilateral investment treaties (BITs), double taxation treaties (DTTs) and other international agreements that include investment provisions were concluded than in previous years, particularly BITs.

(i) Bilateral investment treaties

In 2007, 44 new BITs were signed, bringing the total number of agreements to 2,608. The number of countries now parties to such agreements has reached 179 following the BIT concluded by Montenegro (its first BIT ever as an independent State) with the Netherlands (figure I.10).

Asian countries were the most active, concluding 29 new BITs. This confirms a sustained high level of commitment from policymakers in this region for closer economic integration and investment

Box I.2. FDI and national security: report of the United States Government Accountability Office

In February 2008, the United States Government Accountability Office (GAO) published a report that reviews the foreign investment regimes of 10 other countries.^a The aim was to identify the mechanisms and criteria which countries use to balance the benefits of foreign investment with national security concerns, and to compare them with the United States.

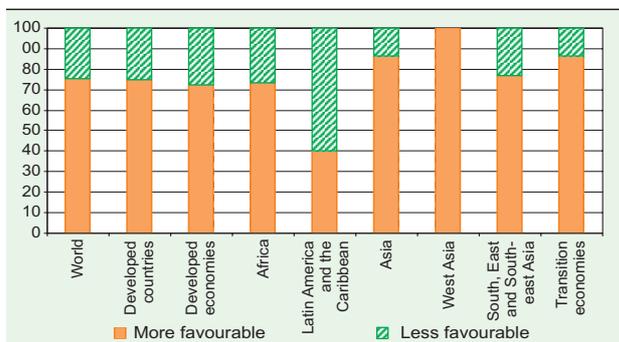
The GAO report concluded that all the countries reviewed had enacted laws and instituted policies regulating foreign investment, many to address national security concerns. However, each of the 11 countries had its own concept of national security that influenced what investments may be restricted. Restrictions ranged from requiring approval of investments in a narrowly defined defence sector, to broad restrictions based on economic security and cultural policy. In addition, some countries have recently made changes to their laws and policies to identify national security more explicitly as an area of concern, following some controversial investments. The report also noted that several countries had introduced lists of strategic sectors that required government review and approval.

Eight countries use a formal process to review transactions; only the Netherlands and the United Arab Emirates do not have a formal review process. The Netherlands, however, restricts entry into certain sectors such as public utilities, and the United Arab Emirates limits ownership in all sectors. During the formal review process, national security is a primary factor or one of several factors considered. All countries were reported to share concerns about a core set of issues, including, for example, the defence industrial base, and, more recently, investment in the energy sector and investment by State-owned enterprises and SWFs. Most countries have established time frames for the review and placed conditions on transactions prior to approval. For example, a country may have national citizenship requirements for company board members. Most countries' reviews are mandatory if the investment reaches a certain size, or if the buyer would achieve a controlling or blocking share in the acquired company. Five countries (France, Germany, India, Japan and the Russian Federation) allow decisions to be appealed through administrative means or in court. In addition to the formal mechanisms, there are unofficial factors that may influence investment in each of the 11 countries. For example, in some countries an informal pre-approval by the government may be needed for sensitive transactions.

Source: UNCTAD, based on United States GAO, 2008.

^a The countries were Canada, China, France, Germany, India, Japan, the Netherlands, the Russian Federation, the United Arab Emirates and the United Kingdom.

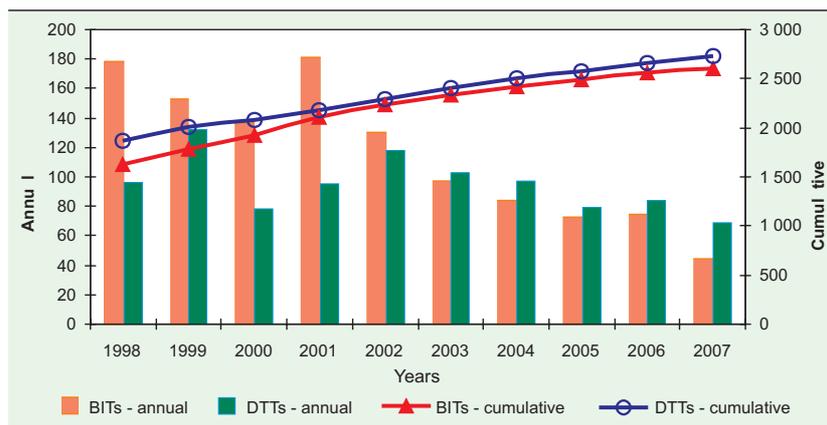
Figure I.9. Regulatory changes, by nature and region, 2007
(Per cent)



Source: UNCTAD database on national laws and regulations.

protection and liberalization. China, Oman and Qatar concluded the largest number of new agreements, with five BITs each in 2007. Asia and Oceania are now party to 41% of all BITs. *Developed countries* were

Figure I.10. Number of BITs and DTTs concluded, annual and cumulative, 1998–2007



Source: UNCTAD (www.unctad.org/ia).

involved in 25 of the new BITs and continue to figure prominently among the top 10 signatories of BITs (figure I.11). At the end of 2007, developed countries were involved in 60% of all BITs. Countries in *South-East Europe and CIS* signed 11 new BITs. With a total of 581 BITs concluded by end 2007, countries in this region were parties to 22% of all BITs. Countries in *Africa* concluded 11 new BITs in 2007. The least active region was *Latin America and the Caribbean* with only 4 new BITs. Noteworthy in this regard is that some countries of the region have withdrawn from the ICSID Convention (Bolivia), announced that consent to ICSID arbitration is no longer available for certain categories of disputes (Ecuador) or are considering

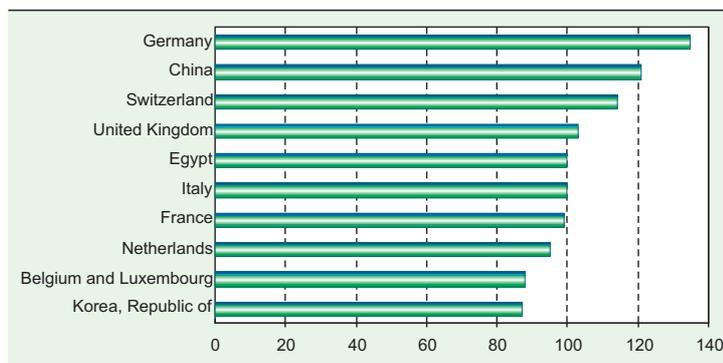
such moves (Nicaragua, Bolivarian Republic of Venezuela) (Gaillard, 2008). Some countries in the region are also denouncing or renegotiating existing BITs.

With regard to developing countries, of the 44 new BITs signed in 2007, 13 were between developing countries, thus adding to the trend of enhanced South-South economic cooperation. South-South agreements now represent more than 27% of the total number of BITs (figure I.12). China alone accounts for a large share of these South-South agreements. In 2007, it concluded four new BITs with other developing countries. About 60% of the Chinese BITs concluded from 2002 to 2007 were with other developing countries, mainly in Africa.¹³

At the same time, a growing number of BITs are being renegotiated. In fact, as many as 10 of the 44 (23%) BITs signed in 2007 replaced earlier treaties. This brought the total number of renegotiated BITs to

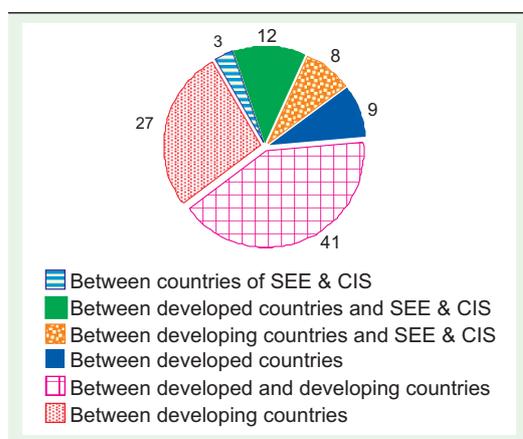
121 at the end of 2007. To date, Germany has renegotiated the largest number of BITs (16), followed by China (15), Morocco (12) and Egypt (11). This number may rise, as many BITs are becoming relatively old, and more countries are revising their model BITs to reflect new concerns related, for example, to environmental and social issues, and the host country's right to regulate.¹⁴ Environmental considerations are also featuring in negotiations of new BITs (e.g. one under way between Canada and China).¹⁵ Furthermore, a growing number of recent agreements mark a step towards a better balancing of the rights of foreign investors, on the one hand, and respect for legitimate public concerns on the other.

Figure I.11. Top 10 signatories of BITs by end 2007



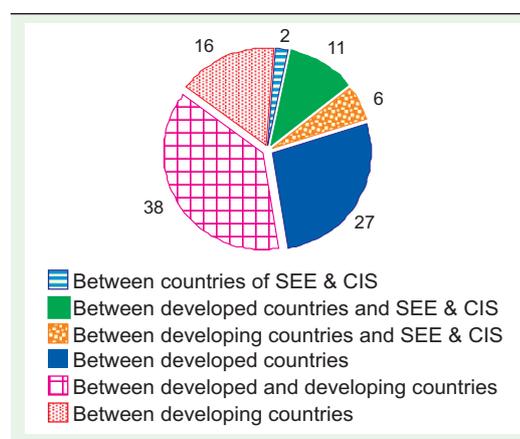
Source: UNCTAD (www.unctad.org/ia).

Figure I.12. Total number of BITs concluded at the end of 2007, by country group (Per cent)



Source: UNCTAD (www.unctad.org/ia).

Figure I.13. Total number of DTTs concluded at the end of 2007, by country group (Per cent)



Source: UNCTAD (www.unctad.org/ia).

(ii) Double taxation treaties

In 2007, 69 new double taxation treaties (DTTs) were concluded, bringing the total to 2,730 treaties (figure I.10). Developed countries are parties to 52 of them, and 17 of the new DTTs were between developed countries only. Belgium-Luxembourg was the most active with 7 new DTTs, followed by the United Kingdom and the United States (5 each). Developing countries were involved in 36 of the new DTTs, led by Saudi Arabia (5 new DTTs). Eight of the treaties signed in 2007 were among developing countries only. Those between developed and developing countries still account for the largest share (38%) of all the DTTs (figure I.13).

(iii) International investment agreements other than BITs and DTTs

During 2007, 12 IIAs other than BITs and DTTs were concluded, bringing the total of such agreements to 254.¹⁶ Asian economies were among the most active (chapter II). In addition, at least 70 new IIAs other than BITs and DTTs were under negotiation at the end of 2007, involving 108 countries.

Most of the agreements concluded in 2007 establish binding obligations on the contracting parties concerning the admission and protection of foreign investment, in addition to a framework on investment promotion and cooperation. The scope of the protection commitments in the new free trade agreements (FTAs) is comparable to that found in BITs, including with regard to dispute settlement.

(iv) Investor-State dispute settlement

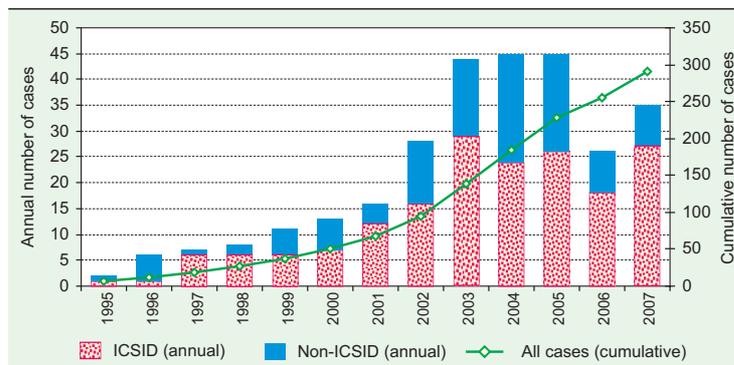
In parallel with the expanding universe of IIAs with investor protection provisions, the number of

investor-State disputes has continued to rise. The cumulative number of known treaty-based cases had reached 288 at the end of 2007 (UNCTAD, 2008a) (figure I.14).¹⁷ In 2007, at least 35 new treaty-based investor-State cases were filed, 27 of which were with the International Centre for Settlement of Investment Disputes (ICSID).¹⁸ While this was a marked increase over 2006, when 26 cases were reported, it is below the peaks reached in 2003–2005. Since ICSID is the only arbitration facility to maintain a public registry, the real number of actual treaty-based cases is likely to be higher.

The rise in disputes has affected many countries to date. In fact, at least 73 governments – 45 of them in developing countries, 16 in developed countries and 12 in South-East Europe and CIS – were involved in investment treaty arbitration by end 2007. Argentina tops the list with 46 claims lodged against it, 44 of which relate at least in part to Argentina's financial crisis in the early 2000s. In 2007, four new cases were brought against that country. Mexico has the second largest number of known claims (18), followed by the Czech Republic (14), Canada and the United States (12 cases each). Six countries faced arbitration proceedings for the first time in 2007: Armenia, Bosnia and Herzegovina, Costa Rica, Guatemala, Nigeria and South Africa.

As many as 90% of known disputes were initiated by firms headquartered in developed countries. The large majority of cases were initiated on the grounds of violating a BIT provision (78%), followed by provisions under the North American Free Trade Agreement (NAFTA) (14%) and the Energy Charter Treaty (6%). In 2007, the first two cases were initiated on the grounds of alleged violations of the Central America-Dominican Republic-United States Free Trade Agreement (CAFTA-DR). A little

Figure I.14. Number of known investor-State arbitrations, annual and cumulative, 1995–2007



Source: UNCTAD (www.unctad.org/ia).

less than half of the disputes (39%) were related to the services sector, including electricity distribution, telecommunications, debt instruments and water services (chapter V). All primary sector cases related to mining and oil and gas exploration activities.

Tribunals rendered at least 28 awards in 2007, 24 of which were in the public domain. Of all the cases terminated by the end of 2007, 41 awards were rendered in favour of the State, 39 in favour of the investor and 42 were settled amicably;¹⁹ 155 cases were still pending.

(v) Implications of recent developments

A number of features characterize IIA negotiating activity and international investment disputes in 2007. First, the shift in treaty-making activity from BITs towards FTAs and other economic integration treaties that combine trade and investment liberalization appears to be continuing. Second, the most intensive treaty-making activity took place in Asia, reflecting the strong economic performance of the region. Third, there is a relatively robust trend towards the renegotiation of existing IIAs and replacing them with more sophisticated agreements. Fourth, the surge in investor-State disputes continues and involves a growing number of countries, a broad variety of IIA provisions, and in some cases significant amounts of damages awarded. As a result, a few countries are considering or have already decided to terminate their membership in ICSID.

All these developments contribute to rendering the existing IIA universe more complex and more difficult to manage for capacity-constrained developing countries. Thus, seeking to ensure that the IIA universe remains manageable for all countries is becoming an increasingly challenging task. In this respect, reinforcing the development dimension of IIAs to take proper account of developing countries' IIA-related concerns remains a key issue.

One topic that has received more attention lately relates to the question of *arbitration-avoiding strategies for developing countries*. Surprisingly, alternative methods of dispute resolution (ADR) seem hardly ever to be used in investment matters, although they are available under international instruments, such as the ICSID Convention and the UNCITRAL Conciliation Rules.²⁰ It would be worthwhile considering giving a more prominent role to ADR – such as mediation and conciliation – in future IIAs. Mediation and conciliation could have several advantages over international arbitration. If successful, it might be cheaper, faster, and more protective of the relationship between the foreign investor and the host country – all important aspects for developing countries.

Further, IIAs currently might not be living up to their full potential in *promoting inward investment*. They focus on investment protection, with investment promotion primarily perceived as a side-effect of the former. Only a small minority of existing IIAs actually include *specific* provisions on investment promotion, such as measures to improve the overall policy framework for foreign investment, increase transparency and exchange information on investment opportunities, organize joint investment fairs, grant financial or fiscal incentives to investors or provide for an institutional mechanism that monitors the actual success of promotion efforts (UNCTAD, 2008c). It may be worthwhile to give more consideration to the issue of investment promotion in IIAs.

In the absence of global investment rules, countries continue to conclude investment treaties on a bilateral and regional basis, thereby further perpetuating and accentuating the existing IIA patchwork with its inherent complexities, inconsistencies and overlaps, and its uneven consideration for development concerns. It is in light of this development that, at the *UNCTAD XII Conference* held in Accra in April 2008, member States reiterated that UNCTAD should continue to help developing countries participate in the debate on IIAs, focusing on their development dimension and examining their effects. More specifically, UNCTAD was called upon to provide policy analysis and capacity-building in relation to the negotiation and implementation of current and future bilateral and regional investment agreements, management of investor-State disputes, alternative means of dispute settlement, the approach to investment promotion and the effects of IIAs.

B. Current financial and monetary developments and FDI

The sub-prime mortgage crisis that erupted in the United States in 2007, which caused property prices to plunge and a slowdown in the United States economy, has had worldwide repercussions. World economic growth in 2007 was relatively strong, but the effects of the crisis had begun to take their toll by mid-2008, and forecasts for 2008 have been revised downwards pointing considerably lower growth rates (e.g. IMF, 2008b). So far, the impact of the crisis on FDI flows has been mixed. The credit crisis in the United States has accentuated the depreciation of the dollar which in turn has stimulated FDI flows into the United States from countries with appreciating currencies (Europe and developing Asia).

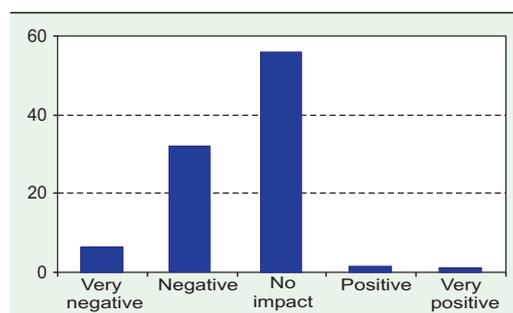
1. The current financial crisis and FDI flows

The problems related to sub-prime mortgage lending and their fallout in the United States since the latter half of 2007 have disrupted financial markets, with broad impacts on the United States economy as a whole. The resultant liquidity problems have extended to some European countries as well.²¹ These, along with long-term effects in terms of difficulties and higher costs of obtaining credit, are also affecting FDI flows. Such effects can be discerned at the micro (or firm) as well as macroeconomic levels.

At the firm level, given that in developed countries FDI is mostly in the form of M&As, it is mainly the direct impact of the crisis on cross-border M&As that is affecting FDI flows. The degree of the impact depends on the extent to which the sub-prime fallout affects lending to the corporate sector and other foreign investors (e.g. private equity funds). In most sectors, TNCs have ample liquidity to finance their investments, as shown by the high corporate profits reported, at least until 2007 (figure I.2). In the UNCTAD 2008 survey of large TNCs, about one third of respondents envisaged negative impacts on FDI flows in the short term, but about half of them suggested no impacts (figure I.15).

At the macroeconomic level, the economies of developed countries could be affected by the slowdown of the United States economy and its subsequent impact on the most important financial centres, affecting bank liquidity and credit supply. It has led to a decline in issuance of corporate bonds, while credit available for investment has fallen not only in the United States, but also in several European countries. Both FDI inflows and outflows

Figure I.15. Impact of financial instability on FDI flows 2008–2010
(Per cent of responses to the UNCTAD survey)



Source: UNCTAD, 2008b.

Note: The survey question was: To what extent have your actual FDI and short-term investment plans been affected by the financial instability following the sub-prime loan market crisis?

to and from these countries may therefore slow down. The question is whether such effects are also being experienced in developing economies, in particular those where there is strong and growing demand for FDI. The fact that economic growth of these economies has remained resilient suggests that this may not be the case. Overall, both microeconomic and macroeconomic impacts that might affect the capacity and willingness of firms to invest abroad were limited, at least in 2007.

To date, the financial crisis has mainly affected North American and European commercial and investment banks, whereas the negative effects on the Asian financial system have been fairly limited. Asian banks, and especially Chinese banks, have gained strength recently. In both 2006 and 2007 three Chinese banks (ICBC, CCB and Bank of China) were among the top seven banks in the world in terms of the value of their market capitalization.²² In contrast, many banks in developed countries had to bear substantial losses in the market value of their equity.²³ The turmoil in financial markets and the problems faced by several banks has started a new process of consolidation in the banking sector through M&As. Banks that were able to ride out the crisis without suffering large losses are seeing an opportunity for (cheap) investment in banks that were severely hit, and the equity prices of which fell sharply, by 40% to 60%. Chinese banks have started to acquire larger stakes in the banking and other financial industries of developed countries. Minsheng acquired a 20% stake in the United Commercial Bank in the United States for \$200 million, while China's Citic Bank invested \$1 billion for a 6% stake in Bear Stearns (United States). However, SWFs have played the most active role in recent M&As in the banking sector (though mainly in the form of portfolio investment), as discussed below.

2. Influence of the falling dollar on FDI decisions

In 2007, the exchange rates of the major currencies of developed countries continued their trend that started at the beginning of this decade. The United States dollar, in particular, further depreciated against the euro and the pound sterling (figure I.16). From 2000 to 2007 the United States dollar lost 33% of its nominal value against the euro and 24% against the pound sterling.²⁴ Large exchange rate changes have taken place in the past five years between the currencies of the United States, Japan and the EU. However, the effects of exchange rate changes on aggregate FDI flows are not straightforward.²⁵ The UNCTAD survey revealed that more than one third of TNC respondents reported negative impacts, while 58% of TNCs said there had been either a positive impact or no impact from dollar depreciation (figure I.17).

While it is difficult to isolate the effects of exchange rate changes from the effects of other determinants on FDI flows, there are some discernible cases of European firms that increased their FDI in the United States in reaction to the appreciating euro (box I.3). As already noted, FDI inflows into the United States have increased considerably in the past four years, from a low of \$53 billion in 2003 to \$233 billion in 2007. The bulk of the inflows – around 60% – originated from EU countries. The increase in investments in the United States by European companies in reaction to the falling United States dollar can be explained by two factors.²⁶

First, the sharp appreciation of the euro and the pound sterling increased the relative wealth of investors from Europe and reduced their investment costs in the United States, which have to be paid largely in United States dollars. Second, European companies suffer if they are highly exposed to exchange rate risks stemming from exports to the dollar zone, when costs are fixed to the euro. Revenues of European firms from sales in the United States have shrunk as a result of the sharp depreciation of the United States dollar against the euro and the pound sterling.

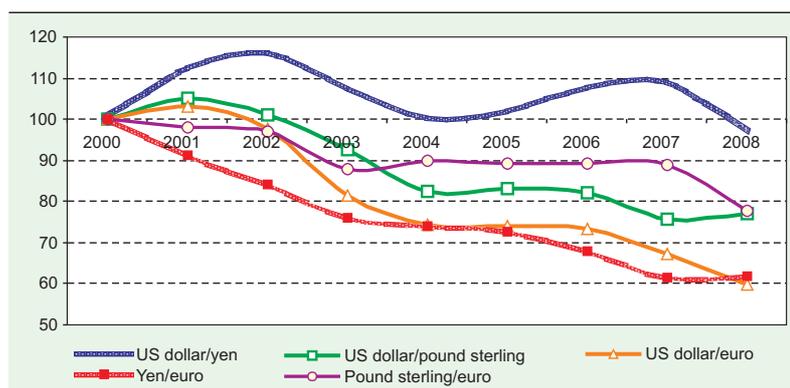
Examples abound: several European carmakers like BMW, Fiat and Volkswagen are following a strategy of building new production facilities or expanding existing plants in the United States to create a natural hedge against a sharp appreciation

of the euro. BMW plans to increase United States production by more than 70%,²⁷ and in January 2008, the German carmaker, Volkswagen, announced plans to produce engines and transmission systems in North America and to establish an assembly plant in the United States in order to reduce its exposure to changes in the United States dollar exchange rate. The plant is set to produce 250,000 cars in 2008.²⁸

Similar plans exist in other industries as well. The French manufacturer, Alstom, announced plans in December 2007 to build a \$200 million plant in the United States to reduce the impact of the low dollar on its margins.²⁹ In November 2007, the chief executive of EADS, the European aircraft maker, indicated that EADS would have to move more production to dollar-zone economies.³⁰

In contrast, in 2008 Porsche decided not to move production to the United States as it has already hedged its dollar exposure until 2013.³¹ Porsche is the European carmaker most exposed to dollar-

Figure I.16. Nominal bilateral exchange rate changes of selected currencies, 2000–2008^a
(2000=100)

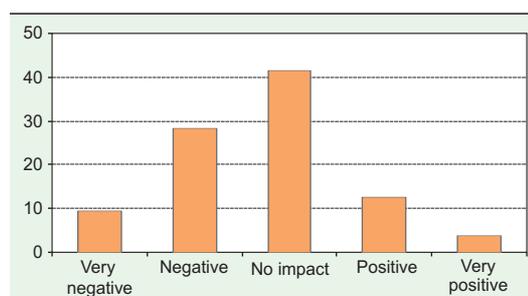


Source: UNCTAD, based on OECD, *Economic Outlook*, No. 83, June 2008.

^a 2008 data are projections by OECD.

Note: A falling curve indicates a depreciation of the exchange rate of the first mentioned currency against the second currency.

Figure I.17. Impact of depreciation of the United States dollar on global FDI flows for 2008–2010
(Per cent of responses to the UNCTAD survey)



Source: UNCTAD, 2008b.

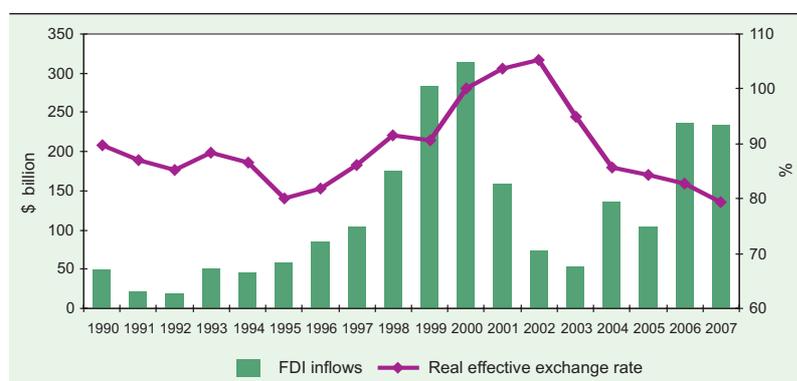
Note: The survey question was: To what extent have your actual FDI and short-term investment plans been affected by the depreciation of United States dollar?

euro exchange rate changes, as NAFTA countries account for around 40% of its total sales (Eiteman, Stonehill and Moffett, 2007) and the company has no manufacturing or assembly bases in the NAFTA region.

Increasing investments in the United States by European companies also partly reflect a reallocation of production within their networks of production units. For example, exports by foreign affiliates in the United States to Mexico grew by more than 40% between 2002 and 2005,³² reflecting increased intra-firm flows of exports from foreign companies in the United States to Mexico (in the context of NAFTA).

The effects of the current depreciation of the dollar on FDI inflows into the United States (figure I.18) are similar to those that occurred in the second half of the 1980s. At that time also inflows into the United States sharply increased in reaction to the strong devaluation of the United States dollar against the yen and several European currencies (Froot and Stein, 1991; Klein and Rosengren, 1994). An empirical test on this relationship also shows a similar result (box I.3).

Figure I.18. FDI inflows to the United States and the real effective exchange rate, 1990–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and IMF's *International Financial Statistics*, June 2008 (for data on exchange rate).

Note: Real effective exchange rate is based on relative normalized unit labour costs.

The fact that TNCs can raise funds in the capital markets in host countries or in international capital markets suggests that they may avoid effects from currency change movements. As some TNCs are also skilful in using derivatives (such as futures, forwards, options and swaps) to hedge against exchange rate changes, FDI flows into tax havens (e.g. Caribbean island economies) and special purpose entities are increasing for this purpose. The current depreciation of the dollar has stimulated this type of FDI as well. For example, FDI flows to tax havens in the Caribbean more than trebled in 2006, and continued to be high in 2007 (annex table B.1).

C. FDI by sovereign wealth funds

A growing number of individual and institutional investors invest in collective investment institutions (e.g. hedge funds, private equity funds), which have become direct investors by acquiring 10% or more of equity, with voting power, in enterprises abroad. These institutions are incorporated investment companies or unincorporated undertakings, and in most cases private. However, sovereign wealth funds (SWFs) have also begun to expand abroad as a result of a rapid accumulation of reserves in recent years.

1. Characteristics of SWFs

Various governments have created special investment funds to hold foreign assets for long-term purposes. In recent years, a number of these SWFs have emerged as direct investors. There is no universally agreed-upon definition of such funds, but their original objective was wealth preservation (box I.4). Their objectives vary, but their investment strategies tend to be quite different from those of traditional TNCs and private equity funds.

A comparison of SWFs with private equity funds shows several differences (box I.5). Not only is the volume of SWFs about nine times larger than that of private equity funds, they are also growing more rapidly due largely to fast increasing trade surpluses and foreign exchange reserves. The size of these funds (or assets under management) is estimated to be about \$5 trillion today³³ (annex table A.I.11), compared to \$500 billion in 1990. With the further rise in oil prices and other commodities, SWFs are continuing to accumulate

foreign exchange reserves. There are some 70 such funds in 44 countries with assets ranging from \$20 million (Sao Tome and Principe) to more than \$500 billion (United Arab Emirates) (annex table A.I.11). However, their holdings are concentrated in China, Hong Kong (China), Kuwait, Norway, the Russian Federation, Saudi Arabia, Singapore and the United Arab Emirates (figure I.19).

2. Investment patterns

Despite their larger size, FDI by SWFs was only \$10 billion in 2007 (figure I.20), accounting for a mere 0.2% of their total assets and only 0.6% of total FDI

Box I.3. Dollar depreciation and FDI flows to the United States: recent empirical findings

To test empirically the hypothesis that the depreciation of the United States dollar has been accompanied by an increase in FDI flows to the United States – a similar situation as was found in the 1980s – a model developed by Froot and Stein (1991) is used here. FDI flows as a dependent variable take into account the host country market size (GDP). Thus the dependent variable is FDI inflows over GDP, which is postulated to be a function of the real exchange rate and a time trend.^a The investment behaviour of other forms of capital inflows, such as foreign official flows and foreign portfolio investments in United States treasuries or corporate bonds, is compared with that of FDI inflows. Given that the euro was introduced in 1999, the period for this exercise is limited to 1999–2007.

There are several noteworthy features of the estimates reported in box table I.3.1. First, FDI inflows in the United States are statistically negatively correlated with the value of the dollar. Second, the coefficient of real exchange rate is higher for FDI inflows than for portfolio flows (corporate stocks and bonds) and other capital flows, and is statistically significant. This implies that FDI inflows are more responsive than portfolio investments to dollar depreciation. The econometric result, that FDI inflows are statistically correlated with the value of the dollar, may support the wealth-effect argument with respect to the FDI-exchange rate relationship and intra-firm reallocation of production for the period in question, as discussed in the text.

Box table I.3.1. Regression of changes in foreign assets in the United States on the value of the dollar, quarterly data, 1999–2007

Form of gross capital inflows into the United States	Coefficients on		DW	R ² (adjusted)	DF
	log (REER)	T			
Total foreign capital flows	-3.1 (1.98)	-0.0 (0.01)	2.1	0.2	33
Foreign official flows	0.1 (2.64)	0.1 (0.02)***	1.6	0.5	31
Foreign private flows	-4.0 (2.33)*	-0.0 (0.02)	2.1	0.1	33
FDI flows	-6.7 (2.23)***	-0.1 (0.02)***	2.1	0.3	30
United States corporate stocks and bonds	-2.3 (1.49)*	-0.0 (0.01)	1.4	0.0	32

Source: UNCTAD estimates, based on data from UNCTAD (for FDI flows); United States Bureau of Economic Analysis (for other capital flows and GDP) and JP Morgan for the real effective exchange rate.

Note: The following model $\log(Y_t) = \alpha_1 + \alpha_2 \log(REER) + \alpha_3 T_t$ is estimated, with OLS and standard errors calculated to allow for conditional heteroscedasticity (White, 1980) in the regression residuals. Standard errors are in parenthesis and *, **, *** represent statistical significance at the 10%, 5% and 1% levels, respectively. REER is the JP Morgan index for real effective exchange rate - a rise in the index indicates a real appreciation of the dollar. T is time trend. Dependent variable Y_t is expressed as a per cent of United States GDP in logarithm value. DW is Durbin-Watson statistic and DF is the degree of freedom.

Source: UNCTAD.

^a There are many other variables influencing FDI flows (*WIR99*), but the purpose is simply to discern the impact of exchange rate levels on FDI.

flows. By comparison, private equity funds, although much smaller in size, invested more than \$460 billion in FDI that year. Most of the SWFs invested heavily in low-yield government bonds in the United States and Europe. While they are increasingly investing in stocks and higher yielding assets, their acquisitions normally constitute ownership shares of less than 10%, which is the threshold for an investment to be classified as FDI. Nevertheless, growth of FDI by SWFs during the period 2005–2007, the majority originating in the United Arab Emirates, was dramatic. Of the \$39 billion of FDI invested by SWFs during the past two decades, as much as \$31 billion was committed in the past three years. From 1990 to 2004, average annual cross-border M&A outflows by SWFs amounted to only \$0.5 billion (figure I.20). The number of cross-

border M&A deals by SWFs increased from only 1 in 1987 to 20 in 2005, and 30 in 2007 (figure I.20).

FDI by SWFs has been geographically and sectorally concentrated. About three quarters of their investments were in developed countries, mainly, the United Kingdom, the United States and Germany (figure I.21), and 73% were in the services sector at end 2007 (figure I.22). Developing countries (notably in Asia) received \$10.5 billion, or 27% of the total, but there was very limited SWF activity in Africa and Latin America. A specific feature of these investments has been their high concentration in business services (24% of the total), with much less going to the primary and manufacturing sectors and financial services. But, there were some important exceptions. For example, in 2005 IPIC (United Arab Emirates) acquired

Box I.4. What are SWFs?

SWFs are government investment vehicles that are funded by the accumulation of foreign exchange assets and managed separately from the official reserves of the monetary authorities. They usually have a higher risk tolerance and higher expected returns than traditional official reserves managed by the monetary authorities. They aim at systematic professional portfolio management to generate a sustainable future income stream. Their portfolio investment includes bonds, equities and alternative asset classes.

SWFs are not a new phenomenon. They have existed since the 1950s, especially in countries that were rich in natural resources (particularly oil), but had largely gone unnoticed until the middle of the present decade. Two of the largest of these funds, Kuwait Investment Authority and Temasek Holdings of Singapore, were founded in 1953 and 1974 respectively. In recent years, the assets of SWFs have grown considerably, reflecting the rapidly growing current-account surpluses of many developing countries and the accompanying accumulation of foreign exchange reserves.

Some examples of SWFs are the Abu Dhabi Investment Authority, China Investment Corporation, Kuwait Investment Authority, GPFNG Norway and GIC fund from Singapore. Recently, the Libyan Arab Jamahiriya launched a fund as well (annex table A.I.11). Equivalent to 2% of the total global value of traded securities,^a SWFs are becoming aggressive investment vehicles. Some of them take on management stakes, such as Singapore's Temasek, Qatar's Investment Authority, Abu Dhabi Mudabala, Dubai International Capital and Istithmar – the latter two of which are the investment vehicles of the Dubai Government. However, the distinction among different funds is not clear. Certain funds are prohibited by law from acquiring a large equity share such as FDI (e.g. Norwegian funds whose investments in equity stakes are limited to a maximum of 5%). Some governments also have stabilization funds, the only purpose of which is to stabilize revenues from commodity exports, and they do not usually engage in the purchase of shares.

Since SWFs hold more financial resources than private equity or hedge funds, they could have a significant influence on financial markets worldwide.

Source: UNCTAD.

^a "The invasion of the sovereign wealth funds", *The Economist*, 17 January 2008.

Box I.5. How are SWFs different from private equity funds?

Both SWFs and private equity firms have become increasingly important players in global investment activities. They have diversified the investor base and contributed to a better environment for managing risks and absorbing shocks during crises. They can play a complementary role to TNCs as important sources of much-needed investment in the developing world. Potentially, this could have a positive impact in helping to reduce disparities in the global economy. Taken as a whole, the activities of SWFs are also increasing the stake of developing countries in the global economy.

Both SWFs and private equity funds have generated significant benefits through their investments, but they have also given rise to some important concerns. Significant challenges at both the systemic and national levels relate largely to regulatory issues and the need to strengthen transparency and oversight without undermining the benefits that these institutions generate. This requires policy development at both national and multilateral levels (see section C.3 below).

There are some major differences between SWFs and private equity funds (box table I.5.1 for details):

- Unlike private equity funds, SWFs are controlled directly by the home country government.
- SWFs can hold stakes for a longer period than private equity funds.
- Non-economic rationale sometimes combines with economic motivations in investment decisions by SWFs.

These differences manifest themselves in the investment strategies of SWFs.

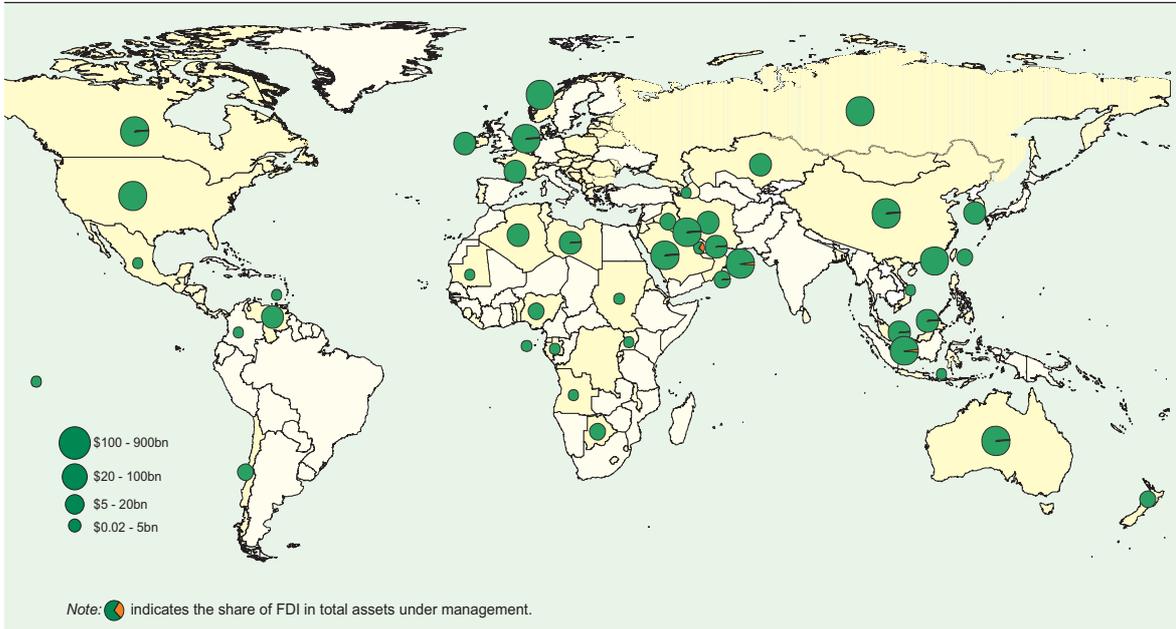
Box table I.5.1. Comparison between SWFs and private equity funds, 2007

Item	SWFs	Private equity funds
Volume	\$5,000 billion	\$540 billion
FDI	\$10 billion	\$460 billion ^a
Main source economies of FDI	United Arab Emirates, Norway, Saudi Arabia, Kuwait, Singapore, China, Hong Kong (China) and Russian Federation	United States, United Kingdom
Largest funds involving FDI	Istithmar PJSC (United Arab Emirates), Dubai Investment Group, Temasek Holdings(Pte)Ltd (Singapore), GIC (Singapore)	KKR, Blackstone, Permira, Fortress, Bain Capital, Carlyle (United States)
Investment strategy	Shifting from passive to active investors. Have tended to hold investment-grade, short-term, liquid sovereign assets in the major currencies, particularly United States treasury securities, but are now becoming strategic investors, with a preference for equities. Also investing in bonds, real estate, hedge funds, private equity and commodities. Still limited involvement in FDI. Concentrated in developed countries.	Shorter time frame (exit within 5-8 years) than public companies and traditional TNCs, but play a more active role in the management of invested companies than SWFs. At the same time, inclined to look for options that offer quick returns, akin to those of portfolio investors. Buy larger and also publicly listed companies, but also invest in venture capital. Undertake FDI through buyouts. FDI is expanding in developing countries.

Source: UNCTAD.

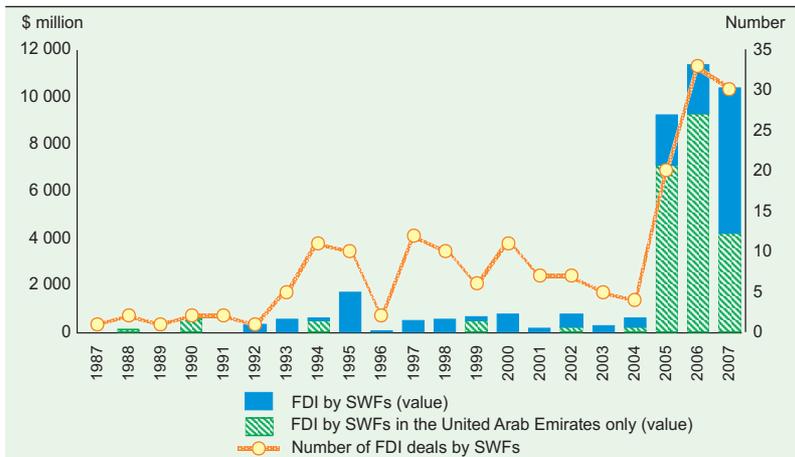
^a Cross-border M&As only.

Figure I.19. Major FDI locations of sovereign wealth funds, 2007



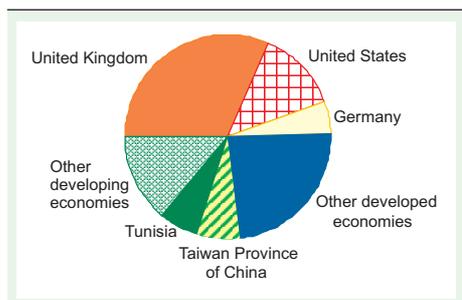
Source: UNCTAD, based on annex table A.I.11.

Figure I.20. FDI flows^a by sovereign wealth funds, 1987–2007



Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).
^a Cross-border M&As only. Greenfield investments by SWFs are assumed to be extremely limited.

Figure I.21. FDI^a by SWFs, by main host groups and top five host economies, end 2007^b (Per cent)



Source: UNCTAD, based on annex table A.I.13.
^a Cross-border M&As only. Greenfield investments by SWFs are assumed to be extremely limited.
^b Cumulative investments (M&As) between 1987 and 2007.

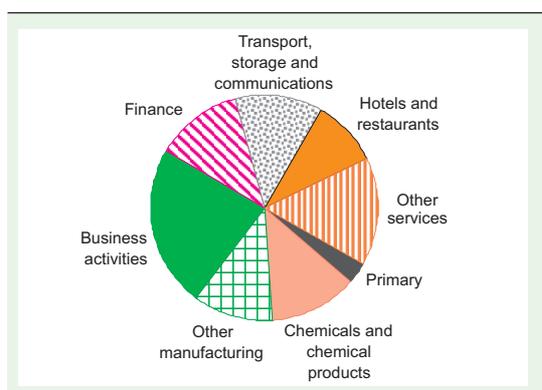
Kuokwang Petrochemical Co Ltd (Taiwan Province of China) for \$2.4 billion (table I.9). In financial services, Temasek Holdings of Singapore acquired a 12% stake in the British bank Standard Chartered. In other industries, FDI by SWFs includes investments in telecommunications (in Tunisia), and plastics (e.g. Denmark, Germany).

In portfolio investment, in which SWFs are more active, there are a number of significant investments. In the manufacturing sector, for example, the Kuwait Investment Authority (KIA) is the largest single investor in Germany's Daimler Benz, though

its share is quite small.³⁴ In 2007, however, the most active investments took place in the financial services of developed countries, due to the financial market crisis and the associated liquidity needs of numerous banks in the United States and the EU. In the latter half of 2007, three of the largest financial services companies in the United States, Citigroup, Merrill Lynch and Morgan Stanley, actively sought new investors and fresh capital. Sharply falling stock prices made these investments relatively cheap for SWFs:

- China Investment Company (CIC) invested \$5 billion in Morgan Stanley;
- Abu Dhabi Investment Authority acquired a \$7.5 billion stake in Citigroup;

Figure I.22. FDI^a by SWFs, by main target sectors and top five target industries, end 2007^b
(Per cent)



Source: UNCTAD, based on annex table A.I.14.

^a Cross-border M&As only. Greenfield investments by SWFs are assumed to be extremely limited.

^b Cumulative investments (M&As) between 1987 and 2007.

- KIC (Republic of Korea), together with Kuwait Investment Authority, invested \$5.4 billion for an equity capital stake in Merrill Lynch; and
- The Government of Singapore Investment Corporation (GIC) acquired a \$9.8 billion stake in the Swiss bank UBS.

Apart from these spectacular investments in the financial sector, SWFs acquired significant stakes in private equity funds and hedge funds in 2007. This is a new strategy of SWFs, which still shy away from larger or complete takeovers of TNCs in other production activities, as they lack the expertise to manage such TNCs. For example, CIC acquired a 9.9% stake in Blackstone (United States), one of the biggest private equity companies. Mubadala Fund of Abu Dhabi invested in Carlyle (United States), the Abu Dhabi Investment Authority acquired a 9% stake in Apollo (United States) and Dubai International Capital bought a 10% stake in Och-Ziff, a hedge fund in the United States. The growing investments of SWFs in private equity and hedge funds could signal an increasing number of joint deals in the future. SWFs are additional and emerging sources of funds for private equity firms as bank loans decline because of the financial crisis.

In sum, the recent behaviour of SWFs has been motivated by various market trends and changes in global economic fundamentals, and by the structural weaknesses in the global financial architecture. Recent investments by SWFs in the financial sector may have exerted a stabilizing effect on financial

Table I.9. Twenty selected large FDI cases by sovereign wealth funds, 1995–2007

Year	Value (\$ million)	Acquired company	Host economy	Industry of the acquired company	Acquiring SWF or entity established by SWFs	Home economy	Acquired share (%)
2005	2 359	Kuokwang Petrochemical Co Ltd	Taiwan Province of China	Industrial organic chemicals, nec	International Petroleum Investment Co (IPIC)	United Arab Emirates	20
2006	2 313	Tunisie-Telecoms	Tunisia	Telephone communications, except radiotelephone	Investment Corporation of Dubai	United Arab Emirates	35
2005	1 691	Borealis A/S	Denmark	Plastics materials and synthetic resins	Abu Dhabi Investment Authority	United Arab Emirates	50
2005	1 495	Tussauds Group Ltd	United Kingdom	Amusement and recreation services	Dubai International Capital LLC	United Arab Emirates	100
2006	1 270	Travelodge Hotels Ltd	United Kingdom	Hotels and motels	Dubai International Capital LLC	United Arab Emirates	100
2006	1 241	Doncasters PLC	United Kingdom	Aircraft parts, equipment	Dubai International Capital LLC	United Arab Emirates	100
2005	1 222	CSX World Terminals LLC	United States	Marine cargo handling	Dubai Ports International	United Arab Emirates	100
2006	1 200	280 Park Ave, New York, NY	United States	Operators of non-residential buildings	Istithmar PJSC	United Arab Emirates	100
2007	1 160	Mausser AG	Germany	Plastic foam products	Dubai International Capital LLC	United Arab Emirates	100
1995	1 135	Mediaset SpA (Fininvest)	Italy	Television broadcasting stations	Investor group	Saudi Arabia	18
2006	1 030	Merry Hill	United Kingdom	Operators of non-residential buildings	Queensland Investment Corp	Australia	50
2007	954	Chapterhouse Holdings Ltd	United Kingdom	Real estate investment trusts	GIC Real Estate Pte Ltd	Singapore	100
2007	942	Barneys New York Inc	United States	Men's and boys' clothing and accessory stores	Istithmar PJSC	United Arab Emirates	100
2007	862	Hawks Town Corp	Japan	Department stores	Government of Singapore Investment Corp Pte Ltd (GIC)	Singapore	100
2007	821	Capital Shopping Centres PLC	United Kingdom	Operators of non-residential buildings	GIC Real Estate Pte Ltd	Singapore	40
2007	621	Bank Muscat	Oman	Banks	Dubai Financial LLC	United Arab Emirates	15
2007	612	WestQuay Shopping Center	United Kingdom	Operators of non-residential buildings	GIC Real Estate Pte Ltd	Singapore	50
2007	596	Westfield Parramatta	Australia	Operators of non-residential buildings	GIC Real Estate Pte Ltd	Singapore	50
2005	594	Bluewater Shopping Centre	United Kingdom	Operators of non-residential buildings	GIC Real Estate Pte Ltd	Singapore	18
2006	594	Adelphi	United Kingdom	Operators of non-residential buildings	Istithmar PJSC	United Arab Emirates	100

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics). For those cases ranked between 21 and 50, see annex table A.I.12.

markets, as they seem to have contributed to restoring the capital base of hard-hit banks. However, in many developed countries public and political statements indicate mixed reactions to FDI by SWFs, especially funds from emerging economies as discussed below.

3. Growing concerns about SWFs

Increasing investments of SWFs in the banking industry in 2006–2007 have been generally welcomed in view of their stabilizing effect on financial markets. But they have also aroused some negative public sentiment in several developed countries, provoking new fears of protectionism and policy moves to change legislation on FDI. In particular, concerns by developed as well as developing countries that SWFs could gain control of infrastructure and other strategic industries (e.g. energy, national defence, oil, gas and electricity supply, and other sensitive activities such as sea ports and airports) have led some governments to tighten regulations (or propose such changes) relating to investments by SWFs.

First, it has been argued that since SWFs could pose a threat to national security, governments should erect barriers against these investors. But most States already reserve the right to refuse M&As for national security reasons, even if, overall, they are very open to foreign investors (see *WIR06*: 225f.).³⁵ National security exceptions mainly relate to economic activities in the military and other strategic sectors. A prominent example is the United States Exon-Florio provision which allows the blocking of an acquisition by a foreign entity if national security is endangered (United States GAO, 2008). In Japan,³⁶ Germany,³⁷ France,³⁸ the United Kingdom³⁹ and many other countries, the legal framework similarly allows the restriction or withdrawal of a foreign investment for national safety and security reasons.

Opponents of FDI by SWFs further argue that the funds might invest in companies that were privatized in recent years and that the improvements in their efficiency from such privatizations may be rolled back as a result of SWF investment. In addition, some are sceptical about investments by SWFs from countries that lack a free market or respect for human rights and sound environmental standards. However, it should be pointed out that SWFs have to conform to national and international labour and environmental standards, and that if there is a high degree of competition in the market, SWFs have no monopoly power to control or exploit that market.

Also criticized is the lack of transparency of SWFs which, with the exception of the Norwegian (box I.6)⁴⁰ and Canadian SWFs, and, recently, Kuwaiti SWFs, do not disclose their asset portfolios

and investment decisions (Truman, 2007; IMF, 2008a). Despite their potentially strong impact on the market, SWFs have little accountability to regulators, shareholders or voters, and there are limited data on their investment strategies, portfolio composition and the average annual returns on assets.

On the other hand, the changing investment strategy of SWFs may imply considerable opportunities as well. For example, they recycle the huge dollar inflows of the countries concerned, thereby contributing to the financing needs of the deficit countries, and therefore to stabilization of the global financial system, by injecting more capital. The passive investments of SWFs in dollar-denominated fixed assets in the past were connected with low returns; today their governments are seeking higher returns on their investments. Enhancing transparency and accountability of SWFs is important. If such conditions were to be met, there would be little reason to treat SWFs less favourably than other fund management companies, private equity groups or hedge funds.

Several initiatives are already under way to establish principles and guidelines relating to FDI by SWFs. At the multilateral level, the IMF has been called upon to develop guidelines for SWFs and has created, with some member States, the International Working Group of Sovereign Wealth Funds to agree on a common set of voluntary principles and practices for SWFs; the European Commission (EC) is exploring plans for an EU-wide law to monitor SWFs; and the OECD is developing guidelines for recipient countries. Ministers of OECD countries, at the Council at Ministerial Level on 5 June 2008, endorsed the following policy principles for countries receiving SWF investments:

“Recipient countries should not erect protectionist barriers to foreign investment.

Recipient countries should not discriminate among investors in like circumstances. Any additional investment restrictions in recipient countries should only be considered when policies of general application to both foreign and domestic investors are inadequate to address legitimate national security concerns.

Where such national security concerns do arise, investment safeguards by recipient countries should be: transparent and predictable, proportional to clearly-identified national security risks, and subject to accountability in their application” (“OECD Declaration on Sovereign Wealth Funds and Recipient Country Policies”, Meeting of the Council at Ministerial Level, 4-5 June 2008, C/MIN(2008)8/FINAL).

At the SWF level, the Abu Dhabi Investment Authority (ADIA), GIC and Norges Bank Investment

Box I.6. Norwegian Government Pension Fund: a “gold standard” for governance of SWFs

The Norwegian Government Pension Fund (NGPF) is considered the “gold standard” for good practice in governance arrangements and operational guidelines that address concerns regarding the accountability and transparency of SWFs. Funds are transferred to the NGPF from the earnings from petroleum. The Norges Bank Investment Management (NBIM) was established in 1998 as a separate department within Norges Bank to manage the pension fund.

The NGPF governance structure seeks to achieve: (i) accountability, through a clear division of responsibilities and a system of checks and balances; (ii) transparency, by providing open information on performance, risks, costs and investments; and (iii) professionalism, by delegating all investment decisions to professionals.

On accountability, the Ministry of Finance decides strategic asset allocation, defines the benchmark portfolio, sets the limit for deviations from the benchmark, identifies companies to be excluded from the investment target, and reports to Parliament. The Norges Bank is responsible for cost-effective transactions and market exposure, active management to achieve “excess” returns (the difference between the return on the Fund and the return on the benchmark), risk management and reporting, and corporate governance, and it advises the Ministry of Finance on investment strategy.

On transparency, NBIM reports on performance, risks and costs on a quarterly basis. These quarterly reports are published on its website and are supported by a quarterly press conference. In addition, an annual report is published listing all investments.

The NBIM’s main tasks, as the professional fund manager, are: cost-effective market exposure, creating “excess” returns against the benchmark through proactive management, safeguarding long-term financial interests through corporate governance (as a minority shareholder in invested companies), and risk management, control and reporting. Its strategy for creating “excess” returns involves taking many small positions rather than a few large ones, with the greatest possible independence in position-taking, and diversifying into well-defined strategies. It also emphasizes a high degree of specialization in both internal and external management, and focuses on keeping costs related to trading and portfolio management low.

Source: UNCTAD, based on the NGPF’s website at: www.norges.bank.no.

Management (NBIM) are working with the IMF to develop a code of conduct for their activities. Singapore’s Temasek Holdings has stated that it will avoid investing in “iconic” companies in developed markets. Clear procedures and guidelines by governments, identifying which industries are regarded as strategically important, should be established to make the investment environment more predictable. Such guidelines will have important implications for the regulatory and legal frameworks of host countries.

D. The largest TNCs

This section looks at the foreign activities of the largest TNCs in 2006. The 100 largest non-financial TNCs worldwide and the 100 largest TNCs from developing economies are ranked by foreign assets. The purpose is not to look at their size per se, but at their internationalization, which is different from other rankings where size in terms of total assets, income or market capitalization, are the determining criteria for ranking.⁴¹ Finally, this section also includes an analysis of the 50 largest financial TNCs worldwide ranked by the Geographical Spread Index (GSI).

The largest TNCs play a major role in international production, both in developed and developing economies. Over the past three years,

on average they accounted for 10%, 16% and 12%, respectively, of the estimated foreign assets, sales and employment of all TNCs in the world. At the same time, the rapid increase in FDI in the past decade has been accompanied by a structural change in its sectoral composition towards services, notably telecommunications, electricity and water services. The current UNCTAD lists of largest TNCs include many that are involved in infrastructure development, but this has not always been the case (box I.7). The wave of liberalization and privatization in the late 1980s and throughout the 1990s, especially in the key infrastructure industries, had a particularly marked effect on the internationalization of these services. These industries, which had been mostly State-owned enterprises or nationalized companies subject to tough restrictions and prohibitions on foreign ownership, were also the fastest to become internationalized after privatization and liberalization opened them up to foreign participation, largely through FDI and strategic alliances.

1. The world’s top 100 TNCs

Overall, the rankings in the first half of the top 100 list in the past decade have remained relatively stable: General Electric (United States) heads the list with more than 8% of the total foreign assets of the top 100 companies – almost three times as much

Box I.7. Infrastructure TNCs in the top 100 TNCs

In 2006, the world's 100 largest TNCs included eight utility companies and eight telecoms companies, seven of which were headquartered in the EU and are ranked in the first quartile of the top listed companies. Most of these TNCs were not among the top 100 prior to 1998 (box table I.7.1). The industry composition of the top 100 reveals that in 1996 there were only one utility company and five telecoms companies and by 1998 there were three utility companies and six telecoms companies.

Box table. I.7.1. Largest TNCs in infrastructure industries:^a ranks in 2006 and in the year of entry

TNC	Country	Industry	Year of entry into top 100		
			2006 rank	Year	Rank
Vodafone	United Kingdom	Telecoms	7	2000	1 ^b
EDF	France	Electricity	9	2001	30
Telefonica	Spain	Telecoms	11	1998	52
E.ON	Germany	Electricity	12	2000	23
Deutsche Telekom	Germany	Telecoms	13	2002	56
France Telecom	France	Telecoms	15	2002	9
Suez	France	Water	19	1998	13
RWE	Germany	Electricity	22	1998	66

Source: UNCTAD/Erasmus University database on largest TNCs.

^a Excluding diversified TNCs.

^b Following the merger with AirTouch Communications in 1999, Vodafone became the world's largest TNCs ranked by foreign assets.

Source: UNCTAD.

as the second-ranked British Petroleum (United Kingdom). The top 10, with about \$1.7 trillion in foreign assets, or more than 32% of the total foreign assets of the top 100, include four petroleum and two motor vehicle companies, two infrastructure companies, one company in the electrical/electronic equipment industry and one retail company. These 10 companies also account for 29% of all foreign sales, but for only 15% of all foreign employment of the 100 largest TNCs, although the retail company Wal-Mart is the world's largest foreign employer.

While a number of new companies from the services sector entered the higher rankings in the list during the decade, some companies in the more traditionally important industries remained among the top. In the petroleum industry, Shell and Exxon, which were number one and two respectively 15 years ago, are still among the top ranked largest TNCs. In

1993, General Electric which was ranked fifth, and motor-vehicle companies such as Toyota and Ford which ranked sixth and seventh respectively, even improved their rankings in 2006.

In 2006, there were few changes in the top 100, with only 10 new entries originating from 8 different countries. By origin, 85 of the companies had their headquarters in the Triad (the EU, Japan and the United States), the United States dominating the list with 21 entries. Of the top 100 firms, 72 came from five countries: the United States, France, Germany, the United Kingdom and Japan, in that order. The number of firms from developing economies in the top 100, which had increased to seven in 2005, fell to six in 2006, but they represented a wide range of activities and diverse origins (two from the Republic of Korea, and one each from Hong Kong (China), Malaysia, Mexico and Singapore).

The activities of the largest TNCs increased significantly, with foreign sales and foreign employment increasing at almost 9% and 7% respectively, faster than that of their domestic activities (table I.10). The ratio of foreign activities to total activities increased again in 2006.

Six industries dominated the list of the largest TNCs. Motor vehicles (13) and petroleum (10) represented more than half of the companies in the first quartile. Electrical/electronic equipment (nine), utilities (eight), telecoms (eight) and pharmaceuticals (seven) followed. These six industries accounted for 55% of the 100 largest TNCs. Metals and non-metallic products, chemical products, retail and wholesale trade, and food and beverages accounted for another 23%.

While the ranking used in UNCTAD's list of the largest TNCs is based on foreign assets, ranking the companies by foreign sales or by foreign employment would give a different picture. If ranked by sales, petroleum TNCs would occupy the top five positions in the list and five automobile manufacturers would be in the top ten. The largest TNC

in terms of foreign sales (ExxonMobil) is 10 times larger than the firm ranked 59, based on foreign sales. Ranking the companies by foreign employment gives yet another picture, with two retail companies and two food and beverage companies in the top five positions. The largest retail TNC in terms of foreign employment is 10 times larger than the firm ranked 55 based on foreign employment.

Table I.10. Snapshot of the world's 100 largest TNCs, 2005–2006
(Billions of dollars, thousands of employees and per cent)

Variable	2005	2006	Percentage change
Assets			
Foreign	4 732	5 245	10.8
Total	8 683	9 239	6.4
Share of foreign in total (%)	54	57	2.3 ^a
Sales			
Foreign	3 742	4 078	9.0
Total	6 623	7 088	7.0
Share of foreign in total (%)	56	58	1.0 ^a
Employment			
Foreign	8 025	8 582	6.9
Total	15 107	15 388	1.9
Share of foreign in total (%)	53	56	2.7 ^a

Source: UNCTAD/Erasmus University database on largest TNCs.

^a In percentage points.

Another aspect of foreign operations is the geographical spread or the number of host countries for foreign affiliates. On average, the largest TNCs have affiliates in 41 foreign countries. The ranking by the number of host countries for foreign affiliates results in a much more diversified list of home countries and industries (table I.11). Deutsche Post (Germany) leads, followed by the Royal Dutch Shell Group. There is a wide range of home countries and activities in this list, which indicates that the form and extent of international diversification differs widely among firms.

Table I.11. Top 15 TNCs, ranked by number of host economies of their affiliates

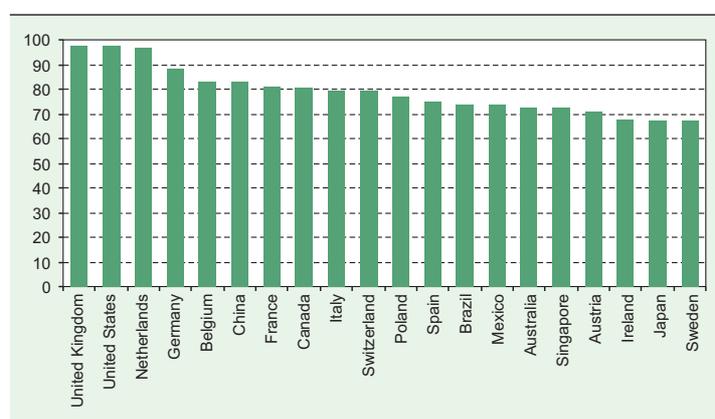
Company	Home country	Number of host economies ^a
Deutsche Post AG	Germany	111
Royal Dutch/Shell Group	Netherlands, United Kingdom	98
Nestlé SA	Switzerland	96
Siemens AG	Germany	89
BASF AG	Germany	88
Procter & Gamble	United States	75
GlaxoSmithKline	United Kingdom	74
Linde	Germany	72
Bayer AG	Germany	71
Philips Electronics	Netherlands	68
Total	France	66
IBM	United States	66
WPP Group PLC	United Kingdom	64
Roche Group	Switzerland	62
Novartis	Switzerland	62

Source: UNCTAD/Erasmus University database on largest TNCs.

^a Majority-owned foreign affiliates only.

The preferred locations for foreign affiliates of the top 100 TNCs, measured in terms of location intensity, which takes into account the home country of the TNCs,⁴² are the United Kingdom and the United States (figure I.23). The top four positions are similar to those in 2005. China ranks sixth, ahead of France and Canada. Among developing economies other than

Figure I.23. Location intensity of the 20 most preferred host economies, 2007



Source: UNCTAD, based on Dun & Bradstreet, *Who Owns Whom Database*.

China, Brazil, Mexico and Singapore rank among the top 20 preferred locations.

How transnational are the largest TNCs? The degree of international involvement of firms can be analysed from a number of perspectives: their operations, stakeholders and the spatial organization of management. Given the range of perspectives and dimensions that can be considered for each, the degree of transnationality of a TNC cannot be fully captured by a single, synthetic measure. UNCTAD's Transnationality Index (TNI)⁴³ is a composite of three ratios: foreign assets to total assets, foreign sales to total sales, and foreign employment to total employment. The conceptual framework underlying this index helps to assess the degree to which the activities and interests of companies are embedded in their home country and abroad (UNCTAD, 2007a).

In 2006, the average TNI for the largest TNCs increased by one point value, but it is worth noting that this average value is highly dependent on the companies represented in the top 100. Nevertheless, over the past 15 years the average value has increased by 14 points, with ups and downs not necessarily in phase with the FDI cycle (figure I.24). The home countries and industries of the top companies ranked by TNI are extremely diverse (annex table A.I.15).

It is also important to look at the differences in TNI between the leading TNCs from the major home countries. The value is higher than average for TNCs from France and the United Kingdom, and it is lower than average for TNCs from Germany, Japan and the United States (table I.12).

One aspect of transnationality from the operations perspective, which is not included in the TNI measure, is the intensity of foreign operations according to the number of foreign affiliates. The geographic spread of a company's operations and interests is captured by the number of foreign affiliates and the number of host countries in which a company

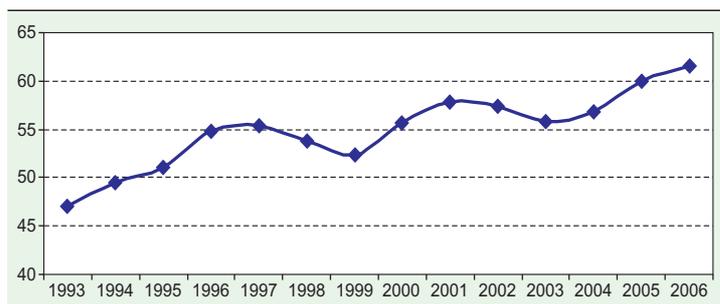
Table I.12. Comparison of TNI values by country, 2005, 2006
(TNI values and number of entries)

Country	Average TNI ^a		Number of entries 2006
	2005	2006	
Top 100 TNCs	59.9	61.6	100
from:			
United States	52.8	57.8	22
France	62.4	63.8	15
Germany	52.6	54.8	14
United Kingdom	72.5	72.8	13
Japan	48.7	52.1	0.9

Source: UNCTAD/Erasmus University database on largest TNCs.

^a TNI, the Transnationality Index, is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

Figure I.24. TNI values of the top 100 TNCs, 1993–2006



Source: UNCTAD/Erasmus University database on largest TNCs.

has established its affiliates. The Internationalization Index (II) – the ratio of a TNC’s foreign to total affiliates – shows that on average more than 70% of the affiliates of the world’s largest TNCs are located abroad (annex table A.1.15). However, there is wide discrepancy between the IIs for TNCs in the different major industries in the top 100: the II for companies in the pharmaceutical, telecommunications, and electrical and electronics industries is much higher than that for companies in the motor vehicle or petroleum industries (table I.13). This signifies that their operations are spread over many more countries, even though FDI may be less important relative to their total assets.

2. The top 100 TNCs from developing economies

In 2006, the foreign assets of the 100 largest TNCs from developing countries amounted to \$570 billion. The 10 largest TNCs in the world accounted for almost half of the foreign assets of the top 100. With foreign assets of \$71 billion, Hutchison Whampoa (Hong Kong, China) remained in the lead, accounting for as much as 12% of the total foreign assets of the top 100. Petronas (Malaysia), Samsung Electronics (Republic of Korea), Cemex (Mexico), Hyundai Motor (Republic of Korea) and Singtel (Singapore), ranked in that order, also figured among the world’s 100 largest non-financial companies.

The top five firms from developing economies in 2006 were already listed among the top 20 on the list of the largest TNCs from developing economies 10 years ago. All TNCs in the top 50 positions have more or less maintained their rankings for the past few years. Overall, the composition of the top 100 has remained relatively stable, at least in the first half of the list, with one exception (a telecoms company from Kuwait). The top 100 TNCs from developing economies operate in a broader range of industries than their counterparts from developed economies, and companies from the electrical/electronic and computer industries still dominate the list with 20

Table I.13. II values of selected industries, 2005, 2006

Industry	Average II ^a	
	2006	2005
Motor vehicles	63.4	62.1
Electrical/electronics	74.1	76.2
Petroleum	55.8	60.5
Pharmaceuticals	80.1	81.9
Telecommunications	73.9	71.6
Utilities	71.4	53.1
All industries	70.1	69.5

Source: UNCTAD/Erasmus University database on largest TNCs.

^a II, the “Internationalization Index”, is calculated as the number of foreign affiliates divided the number of all affiliates.

entries. They are followed by TNCs in telecoms (9), petroleum (8) and food and beverages (8).

The regions and countries of origin of the top 100 TNCs from developing economies have changed little over the past 10 years: 76 TNCs are from South, East and South-East Asia, 10 are from Latin America, 11 from Africa, and, for the first time, three new TNCs in the infrastructure industries are from West Asia (Turkey and Kuwait). By economy, Hong Kong (China) and Taiwan Province of China dominate the list with 26 and 16 TNCs respectively. Singapore and China have maintained their relative lead with 11 and 9 companies respectively. South Africa (10), Mexico (6) and Malaysia (6) are the other important home countries for TNCs from developing countries.

In 2006, the foreign assets, foreign sales and foreign employment of the largest 100 increased by 21%, 27% and 12% respectively, compared to the previous year (table I.14). But relatively speaking, their foreign operations, as reflected in the ratio of the foreign component to the total, remained fairly stable compared to 2005, with only small increases.

Table I.14. Snapshot of the world’s 100 largest TNCs from developing economies, 2005, 2006 (Billions of dollars, thousands of employees and per cent)

Variable	2005	2006	Percentage change
Assets			
Foreign	471	571	21.3
Total	1 441	1 694	17.6
Share of foreign in total (%)	33	34	1.0 ^a
Sales			
Foreign	477	605	26.9
Total	1 102	1 304	18.3
Share of foreign in total (%)	43	46	3.2 ^a
Employment			
Foreign	1 920	2 151	12.0
Total	4 884	5 246	7.4
Share of foreign in total (%)	39	41	1.7 ^a

Source: UNCTAD/Erasmus University database on largest TNCs.

^a In percentage points.

Compared to the largest TNCs worldwide, developing-economy TNCs have affiliates in a smaller number of foreign affiliates – only 9 on average. Cemex (Mexico) is present in the largest number of host countries, followed by three companies in electrical/electronics (table I.15). The most preferred locations for the foreign affiliates of the top developing-economy TNCs are the United Kingdom and the United States, as is the case for the largest TNCs worldwide, but China is the third most-preferred location, ahead of Germany, Hong Kong (China), the Netherlands and Brazil.

While a firm like Cemex is truly diversified geographically, with activities in Asia, West Asia, Europe and Latin America, most companies have a more regional focus: Mexican companies tend to have more activities in Latin America and Asian companies in Asia. With the exception of Sappi (South Africa) none of these TNCs in the top 15 have foreign affiliates in African countries.

How transnational are TNCs from developing economies compared to their counterparts from developed countries? The average TNI is higher for the world's 100 largest TNCs, but the gap between the two is closing (UNCTAD, 2007a). In 2006, the average TNI value for the largest TNCs from developing economies increased by three points. This TNI value is larger for companies in Asia than in other developing regions (table I.16). The home countries and industries of the top companies ranked by TNI are highly diversified (annex table A.1.16).

The degree of transnationality is also affected by the extent to which TNCs are expanding their foreign activities in various locations. The Internationalization Index (II), the ratio of a TNC's foreign to total affiliates, shows that, on average, more than 50% of the affiliates of the largest TNCs from developing economies are located abroad, a

Table I.15. Top 15 TNCs from developing economies ranked by the number of host economies of their affiliates, 2007

Corporation	Home economy	Number of host economies
Cemex	Mexico	35
Samsung Electronics Co.	Republic of Korea	32
Flextronics International	Singapore	30
LG Corporation	Republic of Korea	24
Singtel	Singapore	24
Acer	Taiwan Prov. of China	23
Neptune Orient Lines	Singapore	20
Hutchinson Whampoa	Hong Kong, China	15
Lenovo Group	China	15
Grupo Bimbo SA	Mexico	14
Orient Overseas International	Hong Kong, China	14
Hon Hai Precision Industries	Taiwan Prov. of China	12
America Movil	Mexico	12
Sappi	South Africa	12
Kia Motors	Republic of Korea	11

Source: UNCTAD/Erasmus University database on largest TNCs.

much lower value than for TNC from developed countries. However, there is wide discrepancy among industries. For TNCs from developing economies, the II of firms in the electrical and electronics and computer industries is very similar to that of their counterparts from developed countries (table I.16).

Table I.16. Transnationality of the largest TNCs from developing economies: TNI and II, by region, 2006

Top 100 TNCs from developing economies	Average TNI ^a		Average II ^b	
	TNI	No. of companies	II	No. of companies
of which:				
Africa (South Africa)	45.0	11	47.7	11
South-East Asia	52.3	20	40.4	17
East Asia	58.6	56	56.3	55
West Asia	56.5	3	92.5	1
Latin America and the Caribbean	40.1	10	39.6	10
Total	53.9	100	50.8	94

Source: UNCTAD/Erasmus University database on largest TNCs.

^a For definition of TNI, see table I.12.

^b For definition of II, see table I.13.

3. Profitability of the largest TNCs

A ratio widely used to evaluate a company's operational efficiency is the return on sales (ROS), also known as a firm's operational profit margin. It is calculated as the ratio of net income (before interest and taxes) to total sales, and provides insight into how much profit is generated per dollar of sales. For firms for which data were available, ROS was calculated, as an average value over the two years 2005–2006.

A comparison by industries suggests that the top TNCs in the pharmaceutical industry have higher returns, on average, than those in all other industries, and they are three points higher than those in the telecoms industry, which ranks second (table I.18). As seen in a previous section, the average II for the top TNCs in this industry is also the highest. At the bottom of the ROS ranking are the largest TNCs from the motor vehicles industry and retail and wholesale trade (table I.18).

The question of whether and how the internationalization of activities affects the performance of a firm is one of the issues most examined in research on strategic management and international business. The importance of international diversification stems from the fact that it represents a growth strategy that has a major potential impact on a firm's performance. The numerous studies – more than 100 investigations in all – that have examined the diversification-performance relationship in the manufacturing sector, have yielded conflicting results (Contractor, 2007; Glaum and Oesterle, 2007; Hennart, 2007). On average, global trends that point in the direction of

Table I.17. Transnationality of the largest TNCs from developing economies: TNI and II, by major industries, 2006

Industry	TNCs from developing economies	
	TNI	II
Motor vehicles	28.7	54.9
Electrical/electronics	64.0	61.4
Petroleum	27.0	20.1
Telecommunications	41.4	55.2
Metals and metal products	46.9	24.4
Food and beverages	61.3	42.4
Transport and storage	62.3	66.6
Computers and related activities	55.6	72.3
Construction	38.2	33.1
Machinery and equipment	50.0	67.7
All industries	53.9	50.8

Source: UNCTAD/Erasmus University database on largest TNCs.

more foreign activities and more internationalization obscure the fact that the form and pace of insertion in the world economy differs widely across industries and home countries of firms.

4. The world's top 50 financial TNCs

In response to foreign market opportunities created as a result of deregulation and globalization, many financial firms have increased their FDI and acquired other companies. This is partly because they believe that only very large players will have the cost advantages necessary to remain competitive in their home markets.⁴⁴ In addition, they see geographical diversification as an advantage in reducing the volatility of risks. They also view market power as giving them the necessary financial strength to be able to conform to the new Basel II agreement, which is designed to establish minimum levels of capital for internationally active banks.

In the mid-1990s, M&A activity in financial services was dominated by domestic deals in the United States, driven by changes in the regulatory framework.⁴⁵ By the early 2000s, cross-border M&As involving European firms accounted for a large share of all cross-border activities in the industry. Over the past five years, the largest deals, of over \$10 billion, have been concluded mainly among European banks. Since 2001, M&A deals in the financial sector have been on the rise, in both number and value (table I.19). European banks are also

expanding rapidly into South and Eastern Europe and the Balkans (box I.8).

During the last quarter of 2007, many banks, mortgage lenders, investment funds and hedge funds suffered significant losses as a result of defaults on mortgage or devaluation of mortgage assets in the United States. By the end of 2007, banks announced \$60 billion worth of losses, as many of the mortgage bonds backed by sub-prime mortgages had fallen in value. As of April 2008, financial institutions had suffered sub-prime-related losses or write-downs exceeding \$245 billion. Two banks – Northern Rock (United Kingdom) and Bear Stearns (United States) – were effectively rescued by their governments.⁴⁶ Many institutions escaped bankruptcy with merger deals. Banks also sought and received additional capital from SWFs: an estimated \$69 billion has been invested by these entities in large financial institutions over the past year (section C).

Large groups continue to dominate world financial services, not only in terms of total assets but also in terms of the number of countries in which they operate. The 50 largest financial TNCs in terms of total assets in 2006 are ranked by UNCTAD's Geographical Spread Index (GSI), since data on foreign assets, foreign sales and foreign employment

are not available for all groups of financial service TNCs (annex table A.I.17). This index is significantly higher for the largest financial groups and for firms from Switzerland, due to the small size of the home country market in the case of the latter.

In 2006, Citigroup (United States) was the top-ranked financial TNC and was more internationalized than any other group in terms of the number of host economies of its affiliates. Overall, European groups dominated the list of the world's top 50 financial TNCs with 34 entries, compared to 9 from the United States, 4 from Japan and 3 from Canada. Japanese banks, after increasing in size through domestic M&As, have gradually regained their positions in the international financial markets from which they had almost completely withdrawn in the 1990s. Despite M&A activity, the ranking of these groups has remained relatively stable: all groups except two were already ranked in the top 50 last year. However, the purchase of ABN AMRO in 2007 by a consortium of three of the largest financial groups will certainly have a strong impact on future rankings.

Table I.18. Average return on sales of major industries, 2005–2006

Industry	ROS	Number of entries
Pharmaceuticals	16.1	7
Telecommunications	13.2	6
Food & beverages	12.9	6
Electricity, gas and water	10.6	9
Petroleum	8.3	7
Electric/electronics	6.5	7
Motor vehicles	4.4	9
Retail and wholesale trade	4.4	6
All industries	10.8	85

Source: UNCTAD/Erasmus University database on largest TNCs.

Table I.19. M&A deals of over \$1.5 billion in the financial sector, 2001–2007

Year	Number of deals	Total value
2007	13	140
2006	13	65
2005	8	44
2004	5	34
2003	3	19
2001–2002	3	21

Source: UNCTAD cross-border M&A database.

Information on the location of foreign affiliates suggests that the most preferred host country for the largest financial TNCs remains the United Kingdom followed by the United States (figure I.25). China is ranked third, while three other developing countries, Singapore, Brazil and Mexico, are also among the top 20 preferred locations. Among the new EU member countries, Poland confirmed its importance as a major location for financial activity in Europe, with increased FDI by European financial groups (including, in 2006, by Fortis and Eurobank from Greece).

E. Prospects

After four years of high GDP growth, a slowdown is expected in 2008 due to the financial and credit crises which are now affecting a number of countries worldwide (e.g. IMF, 2008b). High levels of energy and food prices may aggravate this situation. Economic growth in developing countries could compensate for weaker growth in high-income countries. Although economic growth in developing economies is projected to decline, from 7.8% in 2007

Box I.8. Banking in the Balkans^a

The creation of a viable and sound financial system in South-East European (SEE) countries has been a fundamental aspect of their transition to a market economy. At the beginning of the 1990s, much of the banking industry in the SEE countries and Turkey remained underdeveloped. The implementation of a reform process improved the banking industry in all the transition countries. In general, the reform process consisted of the establishment of a two-tier system, a new regulatory system conforming with BIS standards, allowing the entry of foreign banks, and the privatization of State-owned banks, which was a crucial element in the effective transition of these countries' banking systems to market-oriented ones.

Substantial inflows of FDI, accompanied by a stable business environment and sound macroeconomic policies, have made investments in the banking industry even more attractive. Over the past few years, the level of financial intermediation has increased significantly in the Balkans due partly to substantial investment by foreign banks, which have acquired local banks through privatizations or M&As. During the period 2006–2007, there were six large M&A deals in the financial industry in this region (box table I.8.1).

Box table I.8.1. Largest cross-border M&A deals in the financial sector in the Balkans, 2006–2007

Year	Acquiring firm	Home country	Target firm	Country	Value (\$ billion)
2006	National Bank of Greece	Greece	Finansbank	Turkey	5.0
2006	Erste Bank	Austria	Banca Comerciala Romania	Romania	4.7
2007	Citigroup	United States	Akbank	Turkey	3.1
2006	Credit Agricole	France	Emporiki Bank	Greece	2.7
2007	ING Group	Netherlands	Oyak Bank	Turkey	2.7
2006	Dexia	Belgium	DenizBank FS	Turkey	2.4

Source: UNCTAD, Cross-border M&A database.

Austrian and Greek banks are taking the lead in investment in banking in the Balkans, though the expansion of French and Italian banks into these countries is also noteworthy. In addition, Greek banks are extending their reach into neighbouring countries of SEE, which are growing twice as fast as the Greek domestic market. By 2005, Greek banks had spent an estimated \$1 billion buying bank assets in the Balkans.^b In the past three years the number of acquisitions has accelerated, with the five largest Greek banks, National Bank of Greece, Alpha Bank, Eurobank, ATEbank and Piraeus Bank, stepping up their commercial and retail banking investments. Notable acquisitions have been by the National Bank of Greece (NBG) in Turkey (Finansbank), Serbia (Vojvodjanska Banka), Romania (Banca Romaneasca) and Bulgaria; by Eurobank in Turkey (Tekfenbank) and Bulgaria (DZI Bank and Postbanka); by Alpha Bank in Serbia (Jubanka); by ATEbank in Serbia (AIK Banka) and Romania (Mindbank); and by Piraeus Bank in Serbia (Atlas Banka) and Bulgaria (Eurobank). At the same time, NBG is pulling out of Western Europe by closing uncompetitive branches in Frankfurt, Paris and Amsterdam.

But the Greek banks are not alone. Other European banks have also moved in. Bank Austria Creditanstalt (a unit of Germany's HypoVereinsbank), Austria's Raiffeisen, and Italy's Unicredito and Banca Intesa are particularly active in the subregion. At the same time, Crédit Agricole and Société Générale, from France, have acquired Greek banks. Among the largest deals, Erste Bank (Austria) acquired Banca Commercial Romania for \$4.7 billion and Dexia (Belgium) acquired Denizbank FS (Turkey) for \$2.4 billion.

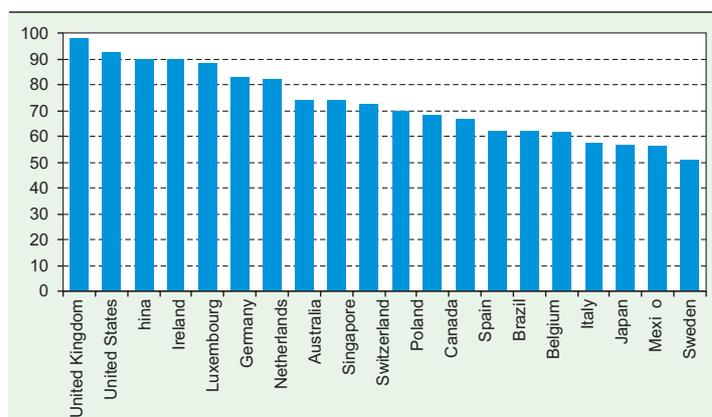
In the new EU accession countries, Bulgaria and Romania, foreign banks have moved rapidly to take dominant positions. In Bulgaria 83% of the banks are controlled by foreign owners. In Romania, Austrian banks are leading (23%), followed by Greek banks (10%) and Italian banks (7%). Romania may offer the best prospects for FDI by foreign banks since, although it is the second largest market in Central and Eastern Europe, it has the least developed banking system.

Source: UNCTAD.

^a The Association of Balkan Chambers (Albania, Bosnia and Herzegovina, Bulgaria, Cyprus, Greece, Montenegro, Romania, Serbia, the former Yugoslav Republic of Macedonia and Turkey) covers 14.3% of the area of the European continent and 25.3% of its population.

^b *Business Week*, 20 June 2005.

Figure I.25. Location intensity of the top 20 preferred host countries for financial TNCs, 2007



Source: UNCTAD, based on Dun & Bradstreet, *Who Owns Whom* database.

to 6.5% in 2008, it remains well above the average of recent decades (World Bank, 2008a).

Corporate profits are declining⁴⁷ and syndicated bank loans to firms during the first half of 2008 nearly halved over the same period of 2007.⁴⁸ Corporate survey findings are pessimistic as regards economic prospects. According to the latest *McKinsey Global Survey of Business Executives* (McKinsey, 2008a), a large majority of executives around the world expect a slowdown in the United States to have a negative impact on their national economies, and nearly 90% report at least a moderate link between their economies and the United States economy. CEO respondents to the *11th Annual Global CEO Survey* carried out by Pricewaterhouse Coopers (2008a) fear a global economic downturn, but continue to recognize the strategic importance of overseas expansion. The survey clearly shows that the impact of the recent global credit crunch and the heightened risk of recession are affecting business confidence. A.T. Kearney's survey also shows that investors are concerned about the economic health of the United States (A.T. Kearney, 2008a).

The financial crises could worsen the existing global external imbalances, trigger exchange rate fluctuations, lead to rising interest rates and high and volatile commodity prices, and build inflationary pressure. All of these possible developments pose risks that may also affect global FDI flows.

Will FDI decline in 2008-2009? Based on 75 countries for which data on FDI flows for the first quarter of 2008 were available, annualized FDI flows for the whole of 2008 are estimated to be some \$1,600 billion, about 10% less than in 2007. The data on cross-border M&As for the first half of 2008 also show a fall of 29%, compared to the second half of 2007 (figure I.5). However, so far the downswing in FDI flows or cross-border M&As has been much less acute than that of 2001 (figures I.1 and I.5). Some

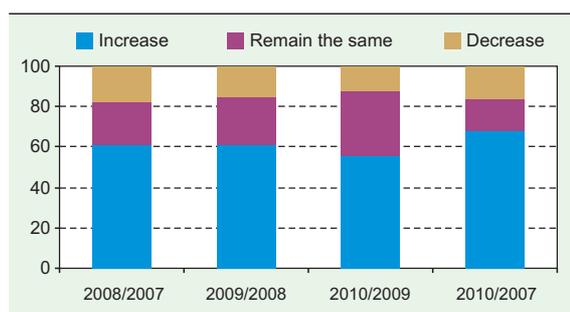
sources point to a fall in FDI flows in 2008 in developed countries (OECD, 2008b), though expectations regarding flows in emerging economies are still upbeat (Institute of International Finance (IIF), 2008a). UNCTAD's *World Investment Prospects Survey 2008-2010*⁴⁹ points to lower optimism than that expressed in the previous survey (UNCTAD, 2007b), though it suggests a rising trend in the medium term (figure I.26).⁵⁰

In terms of preferred regions and country groups for FDI, East, South and South-East Asia remains the most preferred region, followed by the EU-15, North America, and the new EU-12 (countries that joined the EU in 2004 and 2007). China is the most preferred investment location, according to the

UNCTAD survey, followed by India, the United States, the Russian Federation and Brazil (table I.20). Viet Nam remains in sixth place because of the availability of skilled and cheap labour and its being the second fastest growing economy in the world behind only China. A.T. Kearney's 2007 FDI Confidence Index shows the same top three countries. In Europe taken alone, the United Kingdom is the most attractive location, followed by France, according to a survey by Ernst & Young (2008a). The JBIC survey of Japanese manufacturing TNCs found that China again ranked at the top, although the number of firms planning to expand production in the country continued to decline (JBIC, 2008). As for long-term prospects, the survey showed for the first time India replacing China as the most promising country for business operations of Japanese TNCs.

Looking at prospects by sector, FDI in natural resources is expected to pick up further. High demand for natural resources, partly caused by China's growing economy, and the opening up of new, potentially profitable opportunities in the primary

Figure I.26. Prospects for global FDI flows over the next three years
(Per cent of responses to the UNCTAD survey)



Source: UNCTAD, 2008b.

sector (e.g. gas and oil in Algeria) will attract more FDI into that sector. FDI in commodity-dependent emerging countries is expected to rise more than other emerging countries (IIF, 2008a). Current high food prices may also affect investment decisions in agriculture and related industries.

In conclusion, while the global outlook for international expansion of TNC operations still looks positive, particularly in developing countries, a lower level of optimism and more prudence are expressed by TNCs in their investment expenditure plans than in 2007.

Table I.20. UNCTAD Survey 2008–2010: the most attractive locations for FDI in the next three years (Responses and comparison with the 2007–2009 survey responses)

2007-2009 survey		2008-2010 survey	
Economies		Economies	
China	56	China	55
India	45	India	41
United States	38	United States	33
Russian Federation	23	Russian Federation	28
Brazil	14	Brazil	22
Viet Nam	13	Viet Nam	12
United Kingdom	10	Germany	9
Australia	10	Indonesia	8
Germany	7	Australia	7
Mexico	7	Canada	6
Poland	7	Mexico	6
		United Kingdom	6

Source: UNCTAD, 2008b.

Notes

- For example, if the growth rate of FDI inflows is calculated on the basis of euro-denominated FDI inflows for 2007, it would be 19%.
- For example, at the company level, Toyota, one of the most profitable TNCs in the world, now earns more than half of its profits in developing countries, up from only 17% in 2004 (*Nikkei*, 6 February 2008).
- Based on the number of projects from the Locomonitor database (www.locomonitor.com). However, data for the value of such projects were not available. This database includes new FDI projects and expansions of existing projects, both announced and realized. Due to lack of data on the value of most projects, only trends based on the number of investment cases can be examined. This database provides data only from 2003 onwards.
- In the United Kingdom, for example, Sir David Walker, a prominent banker and former regulator, was commissioned to develop a voluntary code of conduct for private equity firms. In November 2007, he recommended that large businesses acquired by private equity should adopt similar regulatory standards to those of listed companies.
- Data for FDI inflows in major host countries in the beginning of 2008 showed a decline for Canada, France, Germany, Italy, the Netherlands, Switzerland and the United States (see section E).
- This included the acquisition in 2006 of Inco (Canada) by CVRD of Brazil for \$17 billion, which represented the largest investment by a Brazilian company ever.
- The *UNCTAD Inward FDI Performance Index* is a measure of the extent to which a host country receives inward FDI relative to its economic size. It is calculated as the ratio of a country's share in global FDI inflows to its share in global GDP. The *UNCTAD Outward FDI Performance Index* is calculated in the same way as the Inward FDI Performance Index: it is the share of

a country's outward FDI in global FDI outflows as a ratio of its share in world GDP. The *UNCTAD Inward FDI Potential Index* is based on 12 economic and structural variables measured by their respective scores on a range of 0–1 (raw data available on: www.unctad.org/wir). It is the unweighted average of scores on the following variables: GDP per capita, rate of growth of real GDP, share of exports in GDP, telecoms infrastructure (average no. of telephone lines per 100 inhabitants, and mobile phones per 100 inhabitants), commercial energy use per capita, share of R&D expenditures in gross national income, share of tertiary level students in the population, country risk, exports of natural resources as a percentage of the world total, imports of parts and components of electronics and automobiles as a percentage of the world total, exports of services as a percentage of the world total, and inward FDI stock as a percentage of the world total. For the methodology for building the index, see *WIR02*: 34–36.

⁸ See, for example, *Economist Intelligence Unit* (EIU, 2007) and work by the OECD on preventing investment protectionism, at: www.oecd.org.

⁹ A flat tax system refers to a system that taxes everyone at the same rate, regardless of their income bracket.

¹⁰ See: www.trade.gov/investamerica/.

¹¹ Altogether six policy changes relating to the extractive industries were identified in the survey in the following four countries: Bolivia, Ecuador, Kazakhstan and the Bolivarian Republic of Venezuela.

¹² ICSID (International Centre for Settlement of Investment Disputes) case ARB/07/27, "Mobil Corporation and others v. Bolivarian Republic of Venezuela".

¹³ Nine of the 16 BITs China signed from 2003 to 2007 were concluded with African countries: Benin, Djibouti, Equatorial Guinea, Guinea, Madagascar, Namibia, Seychelles, Tunisia and Uganda.

¹⁴ Norway, for example, is finalizing a new model BIT that includes, *inter alia*, the promotion of transparency in economic cooperation between the parties, and emphasizes the protection of health, safety, the environment and international labour rights. It also stresses the importance of corporate social responsibility and reaffirms the parties' commitment to democracy, the rule of law, human rights and fundamental freedoms.

¹⁵ For more details, see Foreign Affairs and International Trade Canada, 2005.

¹⁶ These agreements include, for example, closer economic partnership agreements, regional economic integration agreements or framework agreements on economic cooperation.

¹⁷ These disputes were filed with ICSID (or the ICSID Additional Facility) (182), under the United Nations Commission on International Trade Law (UNCITRAL) (78), the Stockholm Chamber of Commerce (15), the International Chamber of Commerce (5), and ad-hoc arbitration (5). Another case was filed with the Cairo Regional Centre for International Commercial Arbitration, one was administered by the Permanent Court of Arbitration, and for one case the exact venue was unknown at the time of writing.

¹⁸ This number does not include cases that are exclusively based on investment contracts (State contracts) and cases where a party has so far only signalled its intention to submit a claim to arbitration, but has not yet commenced the arbitration (notice of intent). If the latter cases are submitted to arbitration, the number of pending cases will increase. All data concerning investor-State dispute settlement (ISDS) cases are based on UNCTAD's online ISDS database at www.unctad.org/ia.

¹⁹ For 11 cases that were decided, the decision is not in the public domain.

²⁰ For ICSID Rules of Procedure for Conciliation Proceedings (Conciliation Rules), see <http://icsid.worldbank.org/ICSID/ICSID/RulesMain.jsp>. For the UNCITRAL Conciliation Rules, see http://www.uncitral.org/uncitral/en/uncitral_texts/arbitration/1980Conciliation_rules.html.

²¹ Examples include bailed out banks in Germany (IKB, Sachsen LB), a bank run in the United Kingdom (Northern Rock) and massive losses by some of the largest banks (e.g. UBS of Switzerland).

- 22 “Global 500”, *Financial Times*, 29 June 2007 and 28/29 June 2008.
- 23 For example, the MSCI (Morgan Stanley Capital International) bank index plummeted by nearly 20% in 2007.
- 24 In real effective terms, the United States dollar depreciated by 28%, whereas the euro and the pound sterling appreciated by 26% and 16% respectively.
- 25 Empirical studies of the effects of exchange rate changes on FDI flows show conflicting results, depending on the specific assumptions of the underlying economic models, and the structural characteristics of the home and host economies. It is therefore difficult to generalize about the effects of exchange rate changes on FDI flows (Russ, 2007). Indeed, foreign firms did not seem to take advantage of the low exchange rate of the Japanese yen during the 1990s and early 2000s. Record FDI inflows to Japan in 2007 were mainly due to large-scale investments in the financial sector, motivated by strategic considerations other than foreign exchange movements (see section on developed countries in chapter II).
- 26 It is difficult to determine to what extent exchange rate changes have influenced recent FDI decisions. In recent years, European TNCs have invested heavily within the euro zone as well as in the EU accession countries, as the creation of the euro and greater economic integration in the EU have promoted a concentration of economic activity (*WIR07*). Therefore, increased intra-EU FDI flows to some extent have been at the expense of FDI outflows to other regions and countries, such as the United States.
- 27 “The declining dollar – how the companies are coping”, *CFO Magazine*, 1 February 2008.
- 28 “Volkswagen plans production in North America”, *Reuters*, 22 January 2008 (<http://www.reuters.com/article/ousiv/idUSL2665653620080126>), and *Nikkei*, 31 May 2008.
- 29 “The declining dollar – how the companies are coping”, *CFO Magazine*, 1 February 2008.
- 30 “Low dollar threatens the life of Airbus”, *Financial Times*, 22 November 2007.
- 31 “Porsche denies U.S. Cayenne production”, *Automotive News*, 15 May 2008 (www.autonews.com).
- 32 Data from United States Bureau of Economic Analysis (www.bea.gov).
- 33 These UNCTAD estimates are based on information from Edwin Truman, Peterson Institute for International Economics, JPMorgan Research, Sovereign Wealth Fund Institute and Global Insight. Other agencies report different estimates. For example, JPMorgan estimated \$3–3.7 trillion in 2007, and it is expected to reach \$5–9.3 trillion in 2012 (Fernandez and Eschweiler, 2008).
- 34 KIA has had an equity capital stake in Daimler Benz since 1974. This share accounted for 6.9% of the total stock value in 2007.
- 35 For example, Thyssen-Krupp, a German steel company, had to buy back shares from the Islamic Republic of Iran to cut its stake to under 5% in 2003, down from the 25% which the Government of the Islamic Republic of Iran had acquired in the predecessor company, Krupp, in 1976 when the firm was nearly bankrupt.
- 36 The Government of Japan requires foreign companies to notify the Government 30 days in advance of plans to purchase 10% or more equity in Japanese high-tech companies.
- 37 In Germany, a lively debate in 2007 on whether the activities of foreign SWFs should be restricted or controlled led to a proposed change in the German Foreign Trade and Payments Act in 2008. A new paragraph is planned to protect public order and the safety of Germany. FDI from countries outside the EU with an equity capital stake of 25% or more now has to be approved by the German Government (Germany, Bundesministerium für Wirtschaft und Technologie, 2008). The German industry federation, BDI, has repeatedly warned against economic patriotism and supports for a continuing high degree of openness to FDI inflows by the German corporate sector (“Investitionsfreiheit bewahren”, *BDI*, 15 August 2007, http://www.bdi.eu/dokumente/positionspapier_investitionsfreiheit_bdi_432584.pdf).
- 38 In France, for example, President Sarkozy promised to protect French managers from “extremely aggressive” sovereign wealth funds (*Economist*, 17 January 2008:1).
- 39 The Government of the United Kingdom can restrict foreign investments in specific companies that it considers important to national security through government ownership of majority shares of these companies (United States GAO, 2008).
- 40 According to its disclosure, NGPF has invested 40% of its assets in more than 3,500 equity capital stakes worldwide. None of these investments is larger than 5% of the total value of outstanding stocks of the target companies, and therefore none can be counted as FDI (Norges Bank Investment Management, 2007).
- 41 For example in November 2007, PetroChina, first to hit \$1,000 billion in value, became the world’s largest company, ahead of ExxonMobil and General Electric. The capitalization of PetroChina is much lower in June 2008 but still ranked second according to the Global 500 ranking (*Financial Times*, 28/29 June 2008). However, this firm is not included in the list of the largest TNCs from developing economies in terms of foreign assets. Neither is Microsoft – ranked fifth – listed in the world’s largest TNCs by foreign assets.
- 42 Location intensity is defined as the total number of TNCs having at least one affiliate in the host country, divided by 100, minus the number of TNCs from this country listed in the top 100 (*WIR06*: 34).
- 43 UNCTAD’s TNI was introduced in 1995 as a response to the academic debate on the ways to measure transnationality.
- 44 According to Vander Venet (1994 and 2002), the market power motive can better characterize EU banks because they are organized as a system of national oligopolies.
- 45 The Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994, which in June 1995 allowed nationwide inter-State banking through holding company banks, and the Gramm-Leach-Bliley Act of 1999, which allowed cross-industry mergers between commercial banks and other financial institutions.
- 46 Northern Rock (United Kingdom) was nationalized by the Government of the United Kingdom and the United States Federal Reserve orchestrated the rescue takeover of the investment bank Bear Stearns by rival firm JP Morgan Chase.
- 47 For example, earnings of S&P 500 companies have been declining since the last quarter of 2007 (*source*: Standard & Poor’s Index Service).
- 48 According to Dealogic the syndicated loans worldwide in the first half of 2008 were \$1.5 trillion, the lowest level in the past four years (*Nikkei*, 7 July 2008).
- 49 This survey of some of the largest TNCs is conducted worldwide on an annual basis. It was undertaken from March to June 2008 using a sample of 3,000 companies chosen from among 8,000 TNCs. Simultaneously, an ad hoc group of international location experts has been set up to provide a more qualitative and global analysis on medium-term business opportunities, risks and uncertainties affecting international investment. The results of its analysis are included in a separate survey report (UNCTAD, 2008b).
- 50 An average of 63% of the companies surveyed expressed optimism regarding FDI prospects for the period 2008–2010 (figure I.26), and 59% expected an increase in FDI flows in 2008.

CHAPTER II

REGIONAL TRENDS

WORLD
2008

INTRODUCTION

This chapter examines FDI flows in 2007, focusing on their changing geographical, and sectoral and industrial patterns, policy developments underlying those patterns, and prospects for FDI flows in 2008.

FDI inflows and outflows grew in all major regions (table II.1) and virtually all subregions in 2007. Inflows to developing countries and the transition economies of South-East Europe (SEE) and the Commonwealth of Independent States (CIS) reached new highs. Among developing economies, while South, East, South-East Asia and Oceania remained the largest regional recipients, accounting for almost

half of the total inflows, Latin America and the Caribbean recorded the largest increase (by 36%) in 2007.

Developing countries saw record FDI inflows in 2007, although their share in global FDI inflows continued to decline, accounting for only 27%, down from 29% in 2006 and 33% in 2005. This was mainly due to the large inflows into developed economies. In contrast, the share of the transition economies rose to 4.7% (table II.1).

FDI outflows in 2007 showed almost the same pattern as inflows: they reached record levels for all the regions and almost all subregions. The share of developed countries in total world FDI outflows increased at the expense of developing countries' share while that of economies in transition, although small, maintained its upward trend (table II.1).

Regarding sectoral distribution, judging from the data on cross-border M&As (as data on FDI flows by sector for 2007 were not available at the time of writing), FDI rose in almost all sectors in all the groups of economies. While FDI in services increased in all regions, the largest increase was in manufacturing in developing and developed economies. On the other hand, in the transition economies FDI in manufacturing fell but increased significantly in the primary sector (table II.2).

Table II.1. FDI flows, by economic group and region, 2005–2007

(Billions of dollars and per cent)

Region	FDI inflows			FDI outflows		
	2005	2006	2007	2005	2006	2007
World	959	1 411	1 833	881	1 323	1 997
Developed economies	611	941	1 248	749	1 087	1 692
Developing economies	316	413	500	118	212	253
Africa	29	46	53	2	8	6
Latin America and the Caribbean	76	93	126	36	63	52
West Asia	43	64	71	12	23	44
South, East and South-East Asia and Oceania	168	210	249	67	118	151
Transition economies (South-East Europe and CIS)	31	57	86	14	24	51
<i>Memorandum: percentage share in world FDI flows</i>						
Developed economies	63.8	66.7	68.1	85.0	82.2	84.8
Developing economies	33.0	29.3	27.3	13.3	16.0	12.7
Africa	3.1	3.2	2.9	0.3	0.6	0.3
Latin America and the Caribbean	8.0	6.6	6.9	4.1	4.8	2.6
West Asia	4.4	4.5	3.9	1.4	1.8	2.2
South, East and South-East Asia and Oceania	17.5	14.9	13.6	7.6	8.9	7.5
Transition economies (South-East Europe and CIS)	3.2	4.1	4.7	1.6	1.8	2.6

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

Table II.2. Cross-border M&A sales, by sector and by group of economies, 2005-2007

(Billions of dollars)

Group of economies	2005				2006				2007			
	All sectors	Primary	Manu- facturing	Services	All sectors	Primary	Manu- facturing	Services	All sectors	Primary	Manu- facturing	Services
World	929.4	155.8	255.0	518.5	1118.1	108.8	304.8	704.5	1637.1	109.8	567.4	959.9
Developed economies	820.4	150.9	222.4	447.0	969.1	97.8	275.5	595.8	1454.1	85.4	530.5	838.2
Developing economies	95.7	2.4	26.3	67.1	131.8	7.7	22.7	101.4	152.9	14.7	35.2	103.0
Transition economies (South-East Europe and CIS)	12.8	2.5	6.3	4.0	17.1	3.3	6.5	7.3	30.1	9.7	1.7	18.7

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

A. Developing countries

a. Geographical trends

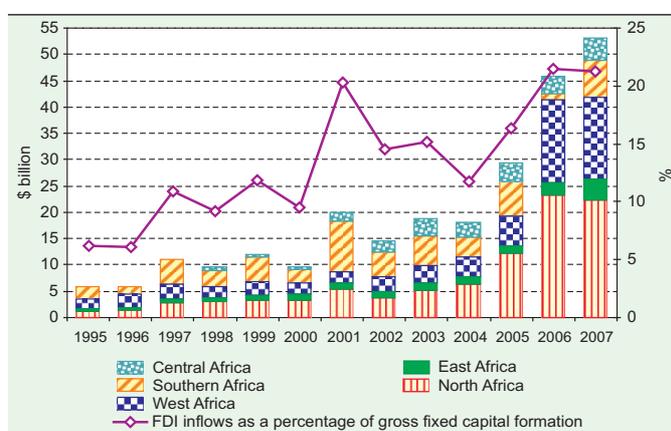
1. Africa

In Africa, FDI inflows grew to \$53 billion in 2007, their highest level so far, despite the global financial crisis. Strong FDI growth in the region for the third consecutive year (figure II.1) was driven by a booming global commodities market, rising corporate profitability of investment and an increasingly FDI-friendly environment. The commodities-market boom also helped drive FDI outflows from Africa amounting to \$6 billion, although this was a decline from 2006 when they reached \$8 billion. Inflows relative to the region's gross fixed capital formation stabilized at 21% (figure II.1). In spite of the new policy measures adopted to reduce red tape for business start-ups, privatize more State-owned firms and encourage FDI participation in public projects, still greater policy efforts are needed to enhance national productive capacities in Africa. Given the strong global commodities markets, large project commitments and pending payments for concluded cross-border M&As, prospects for increased FDI inflows to the region in 2008 are good, and could lead to a fourth consecutive year of FDI growth.

i. Inward FDI: increased flows, not just to oil producers

In 2007, FDI inflows to Africa grew by 16% to reach \$53 billion, increasing the region's FDI stock to \$393 billion. TNCs took advantage of good returns on investment in the region (figure II.2)¹ and high global commodity prices to expand their regional operations, opening various exploration projects in new territories and disbursing payments for a line-up of acquisition deals concluded in 2006, in addition to new ones initiated in 2007. The growth of FDI inflows was spread across 35 countries, and included many natural resource producers that have been attracting flows in the past few years, as well as new host countries. The distribution of the inflows changed slightly: the 6 countries of North Africa attracted 42% of the FDI to the region in 2007 compared with 51% in 2006, and the 47 countries of sub-Saharan Africa attracted 58% of the flows, up from 49% in 2006. While most countries of North Africa continued to attract inward FDI, large inflows to Nigeria and South Africa, combined with good performance in Equatorial Guinea, Madagascar and Zambia – each receiving about \$1 billion or more inflows in 2007 – boosted overall FDI to sub-Saharan Africa.

Figure II.1. Africa: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007

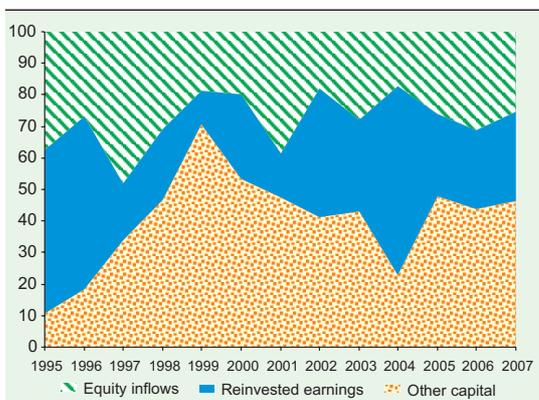


Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex tables B.1 and B.3.

The value of cross-border M&As in the region fell in 2007 due partly to the smaller number of mines and exploration projects available for sale. In the case of greenfield FDI, partly because of reduced investments in new mines, the number of investment projects in the region also declined to 380 in 2007, from 473 in 2006 (annex table A.I.1). The fall in cross-border M&As and greenfield projects appears in many cases to have been compensated for by a rise in intra-company loans from parent firms and reinvested earnings – two of the three components of FDI flows that are not necessarily captured in the data on cross-border M&As and greenfield projects used in this report – leading to the rise in total FDI inflows (as measured by balance-of-payments data). The share of reinvested earnings in total FDI inflows to Africa was

28% in 2007, compared with 25% in 2005-2006, and the share of intra-company loans (other capital flows) was 46%, up from 44% in 2006 (figure II.2)

Figure II.2. FDI inflows to Africa, by component, 1995–2007
(Per cent)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Note: The number of African countries covered in this figure varies by year from 11 to 26 countries (with 11 countries covered in 2007), for which data on all three components were available.

All the subregions of Africa except North and West Africa experienced growth in FDI inflows in 2007, with the highest growth rate registered in Southern Africa. In 18 countries, there was a decline in inflows partly because of exploration activities that failed to yield enough reserves for continued investments. Despite the rise of inflows to the region as a whole, the share of Africa in total world FDI inflows in 2007 remained low at about 3%. As shown by cross-border M&A data (table II.3), the leading foreign investors were TNCs from Canada, Europe (mainly France and Switzerland) and the United Arab Emirates.

The 10 leading FDI host countries (figure II.3) in Africa accounted for over 82% of the region's inflows. The number that received FDI inflows of \$1 billion or more increased to 9 (table II.4) from 8 in 2006. South Africa and Madagascar rejoined the list of top 10 FDI host countries, displacing Chad and Ghana from the 2006 list, though inflows remained large in those two countries in 2007. In terms of average FDI inflows since the beginning of 2000, Nigeria remained the largest recipient, accounting for 16% (the highest share) of the region's FDI stock. The top 10 host countries in 2007 shared a number of common features: large reserves of natural resources and/or active privatization programmes, liberalized FDI policies and active investment promotion activities. A

larger number of African countries, including LDCs (box II.1), attracted higher levels of FDI, though exploration for natural resources in many of them has caused their FDI inflows to fluctuate (table II.4).

Rising FDI inflows have had an impact on host economies in the region. In the major natural resource producers, FDI in natural resource exploitation projects has contributed to accelerated export growth. Foreign-exchange reserves in the region as a whole grew by some 36% in 2007, with Nigeria and the Libyan Arab Jamahiriya registering particularly high increases.² Income on inward FDI grew by 31% in 2007, and the rate of return on FDI in Africa, which has increased steadily since 2004, was the highest among developing host regions in 2006 and 2007 (figure II.4).³

FDI inflows in 2007 to the five subregions of Africa differed with respect to their level, growth and geographic distribution.

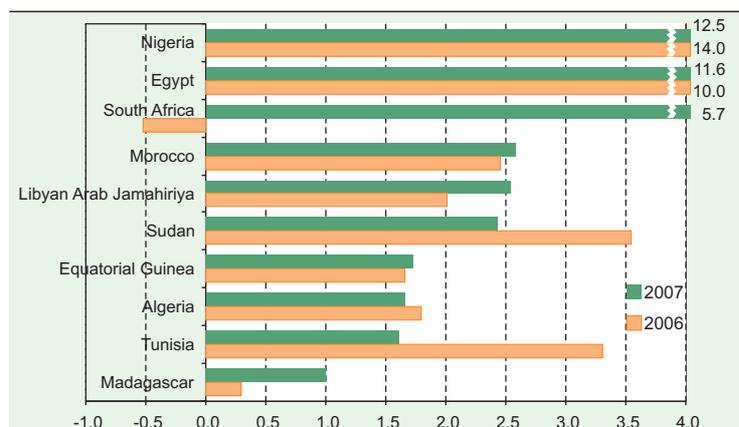
*North Africa.*⁴ Renewed privatization programmes and policies aimed at improving efficiency contributed to maintaining large FDI inflows to North Africa in 2007, at \$22 billion. Inflows to Egypt remained very large, reaching nearly \$12 billion in 2007, a 15% increase from 2006. The major industries that attracted FDI to that country included textiles, oil and chemicals, and generic pharmaceutical production. Privatization of several State-owned enterprises also played a role in the subregion. For example, in Algeria privatization

Table II.3. Africa: cross-border M&As, by region/economy, 2005-2007
(Millions of dollars)

Region/economy	Sales of African firms			Purchases by African firms		
	2005	2006	2007	2005	2006	2007
World	11 259	19 806	10 217	18 496	24 295	5 501
Developed economies	9 561	9 505	7 160	15 795	16 934	3 897
Europe	8 843	8 566	5 014	14 847	15 038	2 376
European Union	8 843	8 566	3 945	14 808	15 038	2 376
France	2 217	805	2 591	-	2	-
Italy	590	1 600	23	12 799	5 062	-
United Kingdom	5 885	4 812	250	1 499	9 293	2 191
Other developed Europe	-	-	1 069	39	-	-
Switzerland	-	-	1 069	39	-	-
North America	657	798	1 755	178	1 856	1 356
Canada	318	389	1 719	-	1 839	854
United States	339	409	36	178	17	502
Developing economies	1 444	10 093	2 808	2 679	7 280	1 439
Africa	1 008	724	547	1 008	724	547
Other Africa	1 008	724	248	1 008	724	248
South Africa	1 001	724	247	954	724	247
Asia	436	9 224	2 261	1 671	6 134	737
Kuwait	-	2 337	-	-	-	-
Lebanon	103	-	-	-	5 948	-
United Arab Emirates	-	2 849	1 430	-	-	-
China	-	2 692	-	1	-	-
Hong Kong, China	-	901	65	1 302	-	-
South-East Europe and CIS	-	-	250	22	81	165

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Figure II. 3. Africa: top 10 recipients of FDI inflows,^a 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.
^a Ranked by magnitude of 2007 FDI flows.

of Crédit Populaire d'Algérie (CPA) was completed. The entry of HSBC (United Kingdom) and Deutsche Bank (Germany) into the country's financial services industry and the acquisition by Linde (Germany) of a controlling stake in a State-owned industrial gas company, also contributed to the surge in FDI inflows. In the Libyan Arab Jamahiriya, the State-owned Oilinvest Group sold a 65% stake in Tamoil to Colony Capital (United States) for \$5.4 billion, in addition to other investments in the oil industry.⁵ In Morocco, FDI inflows grew as a result of some privatizations.⁶

*West Africa.*⁷ The FDI boom in the primary sector and privatization schemes of telecommunications companies led to another year of large inflows to West

lowest in FDI inflows to Africa. The United Republic of Tanzania received increased FDI in several natural-resource exploitation projects already in operation. There were significantly higher inflows to Djibouti, Kenya, Madagascar, Mauritius, Seychelles and Somalia, while in Uganda, FDI declined marginally. Inflows to Madagascar were exceptionally high due to investment in nickel exploitation projects,¹³ and in Kenya they increased due to large privatization sales in the telecommunications industry and investments in railways. FDI inflows to Mauritius targeted the tourism sector, in particular the hotel industry which has gathered momentum lately under the Integrated Resorts Scheme. The main sources of FDI inflows to this country were the United Kingdom and the United States. Inflows to Ethiopia declined because of oil exploration projects that failed to yield sufficient reserves to warrant more investments.

*Central Africa.*¹⁴ In the Central African subregion, Asian TNCs and a few others from developed countries contributed to the 26% increase in FDI inflows, to \$4 billion in 2007. Nevertheless, the subregion accounted for less than 8% of total FDI inflows to Africa, most of it from developing countries. As in the past, much of those inflows went into the primary and services sectors, including infrastructure development, with a large part of the increase reflecting greater spending by TNCs on oil and mining exploration. Equatorial Guinea, the Democratic Republic of the Congo, Chad, Congo and Cameroon, in that order, were the leading FDI destinations in the subregion. In Equatorial Guinea, FDI

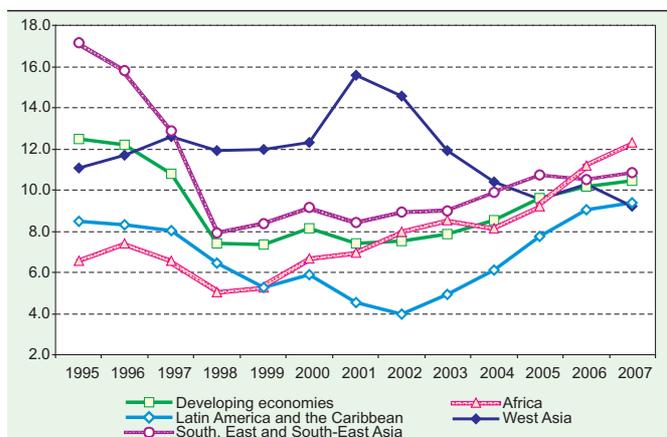
Table II.4. Africa: distribution of FDI flows among economies, by range,^a 2007

Range	Inflows	Outflows
Over \$3.0 bn	Nigeria, Egypt and South Africa	South Africa
\$2.0 bn to \$2.9 bn	Morocco, Libyan Arab Jamahiriya and Sudan	..
\$1.0 bn to \$1.9 bn	Equatorial Guinea, Algeria and Tunisia	..
\$0.5 bn to \$0.9 bn	Madagascar, Zambia, Ghana, Kenya, Democratic Republic of Congo, Namibia, United Republic of Tanzania, Chad and Burkina Faso	Egypt and Morocco
\$0.2 bn to \$0.4 bn	Botswana, Mozambique, Côte d'Ivoire, Uganda, Mali, Congo, Mauritius, Cameroon, Gabon, Ethiopia and Seychelles	Liberia, Angola, Algeria and Nigeria
Less than \$0.2 bn	Djibouti, Cape Verde, Mauritania, Somalia, Guinea, Lesotho, Sierra Leone, Senegal, Togo, Zimbabwe, Rwanda, Gambia, Malawi, Benin, Liberia, Swaziland, São Tomé and Príncipe, Central African Republic, Niger, Guinea-Bissau, Comoros, Burundi, Eritrea and Angola	Mauritius, Gabon, Botswana, Kenya, Tunisia, Rwanda, Sudan, Senegal, Seychelles, United Republic of Tanzania, Mauritania, Congo, São Tomé and Príncipe, Zimbabwe, Swaziland, Malawi, Mali, Niger, Cape Verde, Mozambique, Côte d'Ivoire, Benin, Cameroon and Burkina Faso

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Economies are listed according to the magnitude of their FDI flows.

Figure II.4. Rates of return on inward FDI by developing regions, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Note: The rate of return is calculated as direct investment income for the current year divided by the average of FDI stock of the previous year and the current year. The figures for 2007 rates of return are based on 39 countries in Africa, 33 in Latin America and the Caribbean, 11 in West Asia and 18 in South, East and South-East Asia.

inflows remained high despite the fact that some TNCs, such as Devon Energy (United Kingdom), divested their interests, including in new oil block allocations.

*Southern Africa.*¹⁵ FDI inflows to Southern Africa grew more than fivefold, the highest among the subregions, to \$7 billion in 2007. A major increase in FDI to the top five host countries – South Africa, Zambia, Namibia, Botswana and Mozambique – accounted for this impressive growth. There was an increase in FDI from Asia, particularly China. For example, the Standard Bank Group (South Africa) sold a 20% stake, worth about \$6 billion (36.7 billion Rand) to State-controlled Industrial and Commercial Bank of China (ICBC).¹⁶ In Mozambique, inflows increased significantly as a result of increased investment in the aluminium industry because of demand for alumina in China. Higher FDI inflows into Zambia have largely been

Box II.1. FDI in African LDCs:^a resource exploitation leads to a second year of growth in inflows

In 2007, FDI inflows to the LDCs in Africa increased to \$10 billion, from \$9.6 billion in 2006 (box figure II.1.1) as TNCs responded to the continued rise in global commodity prices. This growth of inflows marks a second year of consecutive growth in their FDI inflows, most of them in greenfield and expansion projects prospecting for reserves of base metals and oil, in addition to some investments in infrastructure development. Some of the inflows went into the privatization schemes in the telecommunications and electricity industries in the LDCs. However, the share of LDCs in FDI inflows to Africa declined to 19% in 2007 from 21% in 2006, mainly due to large inflows to the non-LDCs, particularly Nigeria, Egypt and South Africa.

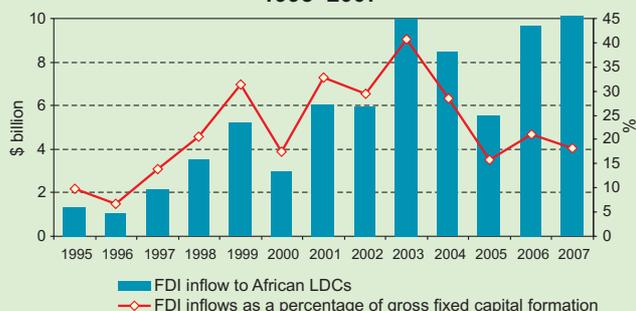
The top 10 destinations for FDI inflows among the African LDCs in 2007 were Sudan, Equatorial Guinea, Madagascar, Zambia, the Democratic Republic of the Congo, Chad, Burkina Faso, the United Republic of Tanzania, Mozambique and Uganda, in that order. TNCs that were active investors in these countries in 2007 included a relatively large number from developing countries, such as CNOOC (China), Sonatrach International Petroleum (Algeria), PT Medco Energi International (Indonesia), Eximbank (Republic of Korea), Sainik Coal Mining (India) and Ophir Energy (South Africa).

Only two African LDCs (Angola and Eritrea) registered negative FDI inflows in 2007, the same number as in 2006. The fewer number of countries registering negative inflows in recent years may suggest the emergence of opportunities for FDI in these countries as the prices of their resources have appreciated dramatically, investor confidence has risen and civil strife decreased. In addition, the international community has created various market access initiatives over the years, such as the Generalized System of Preferences (GSP), Everything but Arms (EBA) and the African Growth and Opportunity Act (AGOA), to help them attract FDI in the manufacturing sector. However many of these host countries are impeded from exploiting these opportunities by a number of persistent constraints relating to domestic costs and capacities. Some investments aimed at taking advantage of the market access initiatives (textile exports to the United States under AGOA, for instance) were withdrawn because the advantages were outweighed by the cost of production in the host economies compared with other production locations, for instance in Asia (UNCTAD, 2008a: 6).

Source: UNCTAD.

^a The 33 African LDCs are: Angola, Benin, Burkina Faso, Burundi, the Central African Republic, Chad, Comoros, the Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Somalia, Sudan, Togo, Uganda, the United Republic of Tanzania and Zambia (Cape Verde graduated out of LDC status in 2008).

Box figure II.1.1. African LDCs: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex tables B.1 and B.3.

attributed to a surge in the copper mining industry, particularly at Lumwana Mine, as well as at Konkola Deep Mining Project.¹⁷

ii. Outward FDI: mainly driven by South Africa

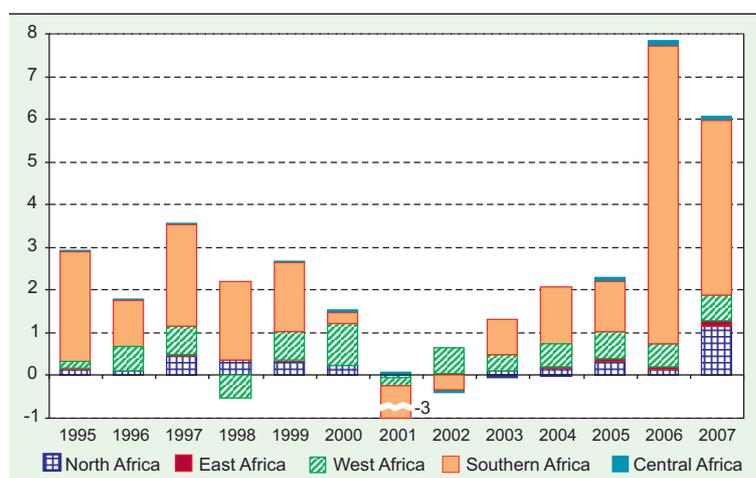
FDI outflows from Africa in 2007 remained large compared to previous years, at \$6 billion, though they were short of their peak of \$8 billion in 2006 (figure II.5). This was mainly due to expansion of operations by TNCs, mainly from South Africa but also from some new home countries that benefited from revenues from high commodity prices.

The top 10 contributors to outward FDI from the region were South Africa, Egypt, Morocco, Liberia, Angola, Algeria, Nigeria, Mauritius, Gabon and Botswana, in that order (annex table B.1). They invested in natural resource exploitation and the services sector. Of these countries, South Africa was the most important (annex table B.1), with many of its TNCs acquiring stakes in major projects both within the region and outside, particularly in banking, information and communications technology, infrastructure development and natural resource industries.

b. Sectoral trends: a rise of inflows to services

Regarding the sectoral distribution of FDI inflows to Africa, those to the manufacturing sector lagged behind the other two sectors. However, cross-border M&As in manufacturing performed better in 2007 (table II.5) as some countries made efforts to shift towards higher value-added production (box II.2) and services. Higher labour costs relative to other developing countries, especially in Asia, and increasing costs of production in manufacturing are in many cases a deterrent to investors.¹⁸

Figure II.5. Africa: FDI outflows, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

Primary sector. A large number of enterprises and projects for sale led to an increase in cross-border M&As in the sector, to \$4.6 billion in 2007 (table II.5). All of these were in the mining, quarrying and petroleum industries. So far, FDI flows in this sector have had little impact on downstream activities, although some countries are initiating programmes. In the petroleum industry, some African countries such as Côte d'Ivoire, Egypt and Nigeria are significantly expanding their refinery capacities. Botswana is also moving towards higher value-added activities through FDI (box II.2). A major challenge for African host governments is to channel petroleum and mining revenues for investment in physical and human capital that could benefit economic growth and development. For example, they could attract FDI into diversified and higher value-added activities (see also *WIR07*).

Manufacturing. In 2007, data on cross-border M&As point to a slow recovery of FDI in the manufacturing sector in Africa from its decline in the 1990s. The value of M&A sales in the sector amounted to 28% of the region's total cross-border M&A sales, rising to \$2.9 billion in 2007, from \$0.8 billion in 2006. Cross-border M&A sales by TNCs in some key manufacturing industries such as chemicals and pharmaceutical products and non-metallic mineral products picked up in 2007 (table II.5). The automobile industry in Morocco and South Africa attracted sizeable greenfield investments, and flows to the latter country may increase further following a new pact with the EU.¹⁹

Within Africa, new textile and apparel firms from Mauritius have moved to Madagascar, and South African clothing companies²⁰ have invested in Lesotho. TNCs from the Libyan Arab Jamahiriya have purchased textile factories in Uganda. Yet, wages in a typical African country striving to attract FDI in this industry, such as Lesotho, are much higher than those in Bangladesh and China, for example. As a result, TNCs in this industry in Africa are not able to compete in markets abroad with cheaper imports from other developing countries. Lack of resources for enhancing technical skills continues to pose a problem in the manufacturing sector.

Services sector. In the services sector, finance was the largest FDI recipient in 2007, according to cross-border M&A data (table II.5). The Industrial Bank of China (ICBC) made one of the largest investments in the Standard Bank Group of South Africa. Barclays Bank (the United Kingdom) and ABSA (South Africa) continued to acquire banks in other African countries. Increased financing

of FDI projects by the affiliates of some major global banks in Africa, such as Barclays Bank, required capital from parent banks. FDI in other services such as business and health services is still small.

TNCs continued to invest in infrastructure projects in areas such as electricity, telecommunications and water. Leading African firms in these services are South African TNCs such as Eskom, MTN, Vodacom, Spooknet and Transnet, although other, non-African TNCs, particularly from the EU, such as Veolia (France) that is involved in a water management project, are also active. In addition, TNCs from China, for instance, are engaged in building hydroelectric stations in African countries.

c. Policy developments

In 2007, African countries introduced significant FDI-related policy and institutional reforms at both national and regional levels. Their development partners, including major home countries, and regional and multilateral entities, also took significant steps that may influence FDI inflows into Africa.

i. Improving the investment climate

Over the past few years, African countries have increased their efforts to develop or enhance their national policies and laws with a view to improving the investment climate. Ten countries introduced policy measures in 2007, most of which were in the direction of making their regulatory frameworks more favourable to FDI and TNCs (box II.3).

In 2007, 11 African countries signed a total of 11 bilateral investment treaties (BITs), and 10 countries signed 11 double taxation treaties (DTTs), raising the total number to 696 and 459 respectively. Approximately 50% of the BITs and 60% of the DTTs signed by African countries were with developed countries, mainly the United Kingdom, France, Germany and Italy.

African regional entities also introduced a number of FDI-related policy and institutional reforms in 2007. For example:

Table II.5 Africa: cross-border M&As, by sector/industry, 2005–2007

(Millions of dollars)

Sector/industry	Sales			Purchases		
	2005	2006	2007	2005	2006	2007
Total	11 259	19 806	10 217	18 496	24 295	5 501
Primary	1 060	3 515	4 638	67	2 176	1 368
Mining, quarrying and petroleum	1 060	3 515	4 638	67	2 176	1 368
Manufacturing	1 479	839	2 858	551	365	1 179
Food, beverages and tobacco	-	661	-	18	191	-
Wood and wood products	158	-	-	164	-	585
Chemicals and chemical products	9	3	1 715	186	-	-
Non-metallic mineral products	967	-	878	54	119	513
Services	8 720	15 453	2 722	17 878	21 754	2 955
Trade	913	1 001	283	1 590	89	166
Transport, storage and communications	1 876	9 686	738	1 395	5 886	318
Finance	5 895	3 509	1 378	14 831	15 170	1 987
Business activities	4	1 038	91	40	187	120

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Box II.2. Some measures to shift FDI towards greater value added activities: the case of diamonds in Botswana

In Botswana, a new diamond-cutting factory operated by Pluczenik (Belgium) opened in Gaborone's industrial zone in 2007, bringing the number of cutting companies in operation in that zone to five. In total, 16 such companies have been issued with licences in the country. The development of the country's diamond-cutting and polishing industry will be greatly boosted by the opening of the Diamond Trading Company (DTC) Botswana in 2008, taking over the aggregation and distribution of much of De Beers' global rough diamond production from the DTC in London. The new investments have been driven by the assurance of an uninterrupted supply of rough diamonds from Botswana at a time of expected global shortages.

However, costs of polishing diamonds in sub-Saharan Africa were \$70–\$100 a carat compared with \$6–\$8 a carat in India, a country with roughly one million people in the industry.^a Measures such as the Diamond Export Levy Bill, enacted in 2007 by the South African parliament, are intended to increase the volume of stones cut and polished in South Africa, which in 2006 produced 11% of the world's supply of rough diamonds.^b

Applying measures such as those described above, Botswana and South Africa, as well as other diamond-mining countries in the region, could attract diamond-processing firms and capture part of this market, which was worth \$69 billion globally in 2006.^c The benefits of such value-added production would help create jobs and increase the value of export earnings from the gems, which could then be used towards attaining national development goals.

Source: UNCTAD, based on "Oppenheimer warns of limits on SA diamond beneficiation", *BusinessDay*, 9 September 2007 (<http://www.businessday.co.za/articles/dailymailer.aspx?ID=BD4A519551>); and "Botswana industry: Pluczenik opens new diamond-cutting factory", *EIUViewswire*, 16 May 2007.

^a Nine out of 10 diamonds in the world are polished in India, according to the industry body, World Diamond Council (www.worlddiamondcouncil.com).

^b Under the bill, all producers would have to supply a newly created State diamond trader with 10% of their production. Large producer TNCs such as De Beers, with annual gross sales of more than \$490 million (3 billion rand), would have to sell 40% of their annual diamond production to local cutting and polishing firms if they want to export the remainder duty-free.

^c According to figures from New York-based trading platform Rapaport (diamond review, at: www.diamond.info).

- *The Common Market for Eastern and Southern Africa (COMESA)* adopted an investment agreement for the COMESA Common Investment Area, which envisages a free investment area by 2010 (box II.4). Moreover, as part of its efforts to make the region an attractive destination for regional and international investors, the COMESA Regional Investment Agency (RIA) was launched in 2006. It is implementing several activities and projects.²¹
- *The Economic Community of West African States (ECOWAS)* created a department responsible for promoting cross-border investments and joint venture businesses, mandated specifically to: (i) improve the investment climate in the region; (ii) facilitate consultations and the exchange of information; (iii) facilitate the establishment of multinational joint ventures and community enterprises, and of public-private partnerships to promote regional investment; and (iv) encourage West African entrepreneurs to develop and maintain links with relevant regional and international bodies. ECOWAS is also preparing the following: a bill on an investment policy framework aimed at harmonizing and simplifying investment policies within the region, a draft on regional investment rules, and a draft community investment code for consideration by ECOWAS member States (Addy and Samb, 2008: 33).
- *The Southern African Development Community (SADC)* is implementing the Finance and Investment Protocol, a key instrument for deeper regional

integration. So far, 10 of its 14 member States have signed the Protocol. SADC is also undertaking a joint investment promotion programme with the EU to facilitate various workshops, meetings and seminars.

- *The African Development Bank (AfDB)* signed an memorandum of understanding with the Export-Import Bank of China in May 2008, which includes the provision of co-financing or guarantee for public sector and possible private sector investment projects. The Bank supports the NEPAD Infrastructure Short Term Action Plan (STAP) and the Medium-Long Term Strategic Framework (MLTSF). It also manages a multi-donor NEPAD Infrastructure Project Preparation Facility (NEPAD-IPPF).

ii. How development partners are promoting investment in Africa

Various countries and international and regional organizations have launched a number of initiatives to promote investment in Africa. *China* expanded its support to Chinese investments in Africa, building on its general investment policy on Africa adopted in 2006.²² In 2007, the Export-Import Bank of China financed over 300 projects in the region, constituting almost 40% of the Bank's loan book (Davies et al., 2008: 3).

Japan, at the Fourth Tokyo International Conference on African Development (TICAD IV) in May 2008, announced its decision to create a facility within the Japan Bank for International Cooperation

Box II.3. Changes in national laws and regulations in Africa relating to inward FDI in 2007

According to UNCTAD's annual review of changes in national laws and regulations concerning FDI, 10 African countries introduced a total of 14 such changes in 2007. Of these, 11 made regulatory frameworks more favourable to FDI and TNCs:

- *Cape Verde* simplified the procedure for approving new investments. It opened up all of its industries to foreign investment, with emphasis on light manufacturing, tourism and fishing.
- *Egypt* eased procedures for setting up special investment zones.
- *Kenya* finalized regulations that promote the licensing of risk capital companies and eased the requirements for banks (including foreign banks).
- *The Libyan Arab Jamahiriya* allowed foreign investors to repatriate profits and transfer liquidated balances abroad in exchangeable currencies, and offered investors tax reductions for up to five years and exemption from customs duties of equipment, machinery and related goods imported for projects in the country.
- *Mauritius* reduced corporate tax rates from 22.5% to 15%.
- *Nigeria* exempted companies established in the free trade zone or export processing zone from profits tax, provided 100% of their production is destined for export.
- *Sudan* allowed foreigners to own 100% of a company's capital.

According to the UNCTAD review, three African countries introduced regulatory measures that were less favourable to FDI and TNCs:

- *Algeria* subjected all transfers and sales of foreign investments to a national approval mechanism.
- *Mozambique* restricted foreign shares in local companies to minority holdings, and barred foreigners from becoming managers, administrators and directors of companies.
- *Zimbabwe* imposed a 51% local ownership requirement. It is also considering a draft bill that would enable the State to take a 25% stake in mining firms.

Source: UNCTAD database on national laws and regulations.

(JBIC) for investment (i.e. equity investment, guarantees and local financing) in Africa of \$2.5 billion over the next five years. This is twice the total FDI flows from Japan to Africa during the past five years (2003–2007) or twice the size of Japanese FDI stock in Africa in 2007.

The United States signed trade and investment framework agreements with three African countries (Mauritius and Rwanda in 2006, and Liberia in 2007).²³ It also negotiated a Trade, Investment and Development Cooperative Agreement (TIDCA) with the Southern African Customs Union (SACU), expected to be signed in mid-2008.²⁴ This agreement will provide the framework for trade and investment promotion activities that could constitute the “building blocks” for an eventual resumption of free trade negotiations while allowing the two parties to take interim steps for improving their trade and investment relationships. The TIDCA will establish a forum for consultative discussions on a wide range of issues. A Consultative Council will oversee implementation of the agreement, set up working groups and monitor

progress towards the negotiation of various trade and investment-related agreements.

The Commonwealth Secretariat has launched a programme of assistance to African countries that includes the review and modernization of national trade-related investment legislation to ensure that it is consistent with international trade commitments and conducive to harnessing foreign investment to economic growth and development. It was also involved in promoting development of professional services in African countries by encouraging investment in those services in the Gambia, Kenya, Namibia, Uganda and the United Republic of Tanzania.

The European Free Trade Area (EFTA)²⁵ started implementing a free trade agreement (FTA) with Egypt in 2007. The Agreement includes provisions on investment, services, State monopolies and subsidies, protection of intellectual property, capital movements, government procurement and institutional and procedural matters. In May 2008, an FTA between the EFTA States and SACU also entered into force.

Box II.4. COMESA Agreement for a Common Investment Area

In May 2007, COMESA^a adopted an agreement for a Common Investment Area, which envisages a free investment area by 2010. The Agreement aims, *inter alia*, at attracting and promoting sustainable FDI by gradually eliminating restrictions and conditions relating to investment and operation of projects. The new Agreement is intended to help its members, most of which are too small to attract the investment they need to support their national development processes and regional integration efforts.

The Agreement grants investors^b in COMESA national treatment, most-favoured-nation treatment, and fair and equitable treatment as of 2010 “with respect to the establishment, acquisition, expansion, management, operation and disposition of investments” in all economic activities except those reserved by each member State. It further grants investors protection against expropriation and taxation measures that could amount to an expropriation.

Member States have committed themselves under the new Agreement to: (i) take appropriate actions to promote transparency, (ii) apply and interpret their investment laws, regulations and administrative procedures in a consistent way, (iii) facilitate, promote and liberalize their investment measures gradually, (iv) enhance the attractiveness of their investment environment for direct investment flows, and (v) ensure observance of the provisions of the Agreement by their regional and local government authorities.

To ensure proper implementation, the Agreement has established a COMESA Common Investment Area (CCIA) Committee with a mandate to supervise the Agreement, decide on applications made by member States for exceptions to national treatment and other obligations, and issue directions concerning its implementation. Since the adoption of the Agreement, the COMESA Co-ordinating Committee on Investment (CCI) has been set up to monitor, review and coordinate implementation of the Agreement. It also prepares and develops action plans for the CCIA. For example in December 2007, it prepared and adopted a two-year Strategic Action Plan for implementation of the CCIA.

The COMESA Secretariat is currently working on a regional strategic policy framework for simplifying the procedures and reducing the costs of starting a business, the issuing of licences as well as for promoting transparency in the region. Based on country studies, COMESA plans to harmonize investments rules, regulations and procedures.

In order to facilitate negotiations, in 2008 COMESA, in cooperation with UNCTAD, established the COMESA Task Force on FDI/TNC Statistics to harmonize data collection among member States.

Source: UNCTAD, based on information provided by the COMESA Secretariat.

^a Its member States are: Burundi, Comoros, the Democratic Republic of the Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, the Libyan Arab Jamahiriya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Swaziland, Uganda, Zambia and Zimbabwe.

^b A foreign-owned or controlled firm is considered to be a COMESA investor if it maintains substantial business activity in a member State. “Substantial business activity” is determined, on a case-by-case basis, by taking into account all the circumstances, including, *inter alia* (a) the amount of investment brought into the country; (b) the number of jobs created; (c) its effect on the local community; and (d) the length of time the business has been in operation.

The Organisation for Economic Co-operation and Development (OECD) has taken various initiatives involving the promotion of private and international investment in Africa. For example, following up on the launch of the *OECD Principles for Private Sector Participation in Infrastructure* (box V.1), a round table was organized to discuss their application to water and sanitation in Africa.

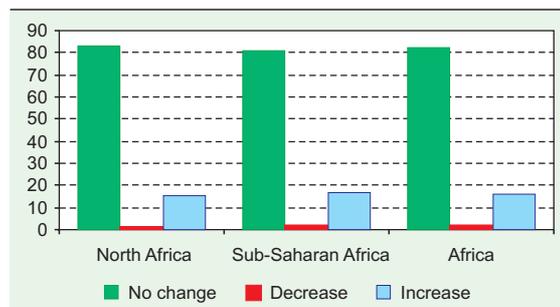
d. Prospects: commodity prices boost FDI

In 2008, FDI inflows to Africa as a whole are expected to grow further as a result of the current boom in commodity markets, notwithstanding the global financial crisis and economic slowdown. That will mark a fourth year of growth of FDI in the region. The expansion of African economies as well as ongoing reforms and the growing confidence of foreign investors should boost investment by TNCs in the region, especially in the primary sector (Jordan, 2007). But the harnessing of FDI to development goals still remains a challenge. FDI in infrastructure development is likely to gain importance, with a high concentration in Southern Africa. Firms and sovereign wealth funds (SWFs) from all parts of Asia are also investing more in Africa's infrastructure. Chinese FDI in particular is noteworthy. For example, China plans to plough at least \$5 billion into rehabilitating infrastructure and mines in the Democratic Republic of the Congo in what could be one of its most ambitious ventures in sub-Saharan Africa.²⁶ West Asian SWFs are also exploring investment opportunities in agriculture (chapter I).

Long-term prospects for FDI will depend on how much of it can be attracted to manufacturing and services in addition to infrastructure. FDI prospects will vary by region and by country. Investments from West Asia, particularly the United Arab Emirates, are likely to grow in *North Africa*, with Algeria and the Libyan Arab Jamahiriya being the major recipients. In *other Africa* (mainly sub-Saharan Africa), Nigeria, the largest FDI recipient in 2007, will benefit from the implementation of major projects in 2008 as Chinese involvement picks up. Gazprom (Russian Federation) is also offering to invest billions of dollars in developing the gas industry in that country, where major Western companies have traditionally invested. Investment in petroleum refineries is expected to significantly boost FDI in Côte d'Ivoire.²⁷ Cameroon, Chad, Equatorial Guinea and Sao Tome and Principe are also likely to attract increased FDI for oil exploitation. In Southern Africa – the largest recipient subregion in sub-Saharan Africa – Angola, Botswana, South Africa and Zambia are expected to receive FDI inflows mainly in response to global demand for commodities. Inflows to South Africa are likely to be diversified.

UNCTAD's survey, *World Investment Prospects 2008–2010* suggests that FDI in Africa will remain at its present level, with only about 15% of the respondents expecting an increase in FDI (UNCTAD, 2008b) (figure II.6).

Figure II.6. FDI prospects in Africa, 2008–2010 (Percentage of responses to the UNCTAD survey)



Source: UNCTAD, 2008b.

2. South, East and South-East Asia and Oceania

FDI flows to South, East and South-East Asia and Oceania rose to another record level in 2007, to reach \$249 billion. Most of the subregions and economies received higher inflows. Factors contributing to this performance included a favourable business sentiment about the region's economies, the significant rise in cross-border M&A sales, progress towards further regional economic integration and country-specific attributes. While East Asia continued to account for the lion's share of FDI to the region, flows to South and South-East Asia also increased significantly. Oceania saw a decline in flows, despite substantially higher flows to a few island economies. China and Hong Kong (China) remained the two largest FDI recipients in the region (as well as in developing economies as a group) (table II.6), while flows to India – the largest recipient in South Asia – and to most member States of the Association of Southeast Asian Nations (ASEAN) increased considerably. Prospects for FDI to the region remain promising despite concerns about the impact of the financial crisis.

Outflows from South, East and South-East Asia in 2007 surged to \$150 billion – their highest level ever. These subregions together continued to account for the bulk of outflows originating from developing countries (59%) (annex table B.1). Increasing South-South FDI through intra- and inter-regional investment is a particularly important feature of the increasing outflows from the region. Prospects for outward FDI are encouraging because of the strong drive of Asian corporations to internationalize, as well as significant M&As expected to be completed in 2008.

Table II.6. South, East and South-East Asia: distribution of FDI flows among economies, by range,^a 2007

Range	Inflows	Outflows
Over \$50 bn	China and Hong Kong (China)	Hong Kong (China)
\$10 bn to \$49 bn	Singapore and India	China, Republic of Korea, India, Singapore Taiwan Province of China and Malaysia
\$1.0 bn to \$9.9 bn	Thailand, Malaysia, Taiwan Province of China, Indonesia, Viet Nam, Pakistan, Philippines, Republic of Korea and Macao (China)	Indonesia, Philippines and Thailand
\$0.1 bn to \$0.9 bn	Cambodia, Islamic Republic of Iran, Bangladesh, Sri Lanka, Myanmar, Mongolia, Lao People's Democratic Republic, Afghanistan and Brunei Darussalam	Macao (China), Islamic Republic of Iran and Viet Nam
Less than \$0.1 bn	Bhutan, Democratic People's Republic of Korea, Maldives, Nepal and Timor-Leste	Pakistan, Sri Lanka, Brunei Darussalam, Bangladesh and Cambodia

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Economies are listed according to the magnitude of their FDI flows.

a. Geographical trends

i. Inward FDI: widespread increases

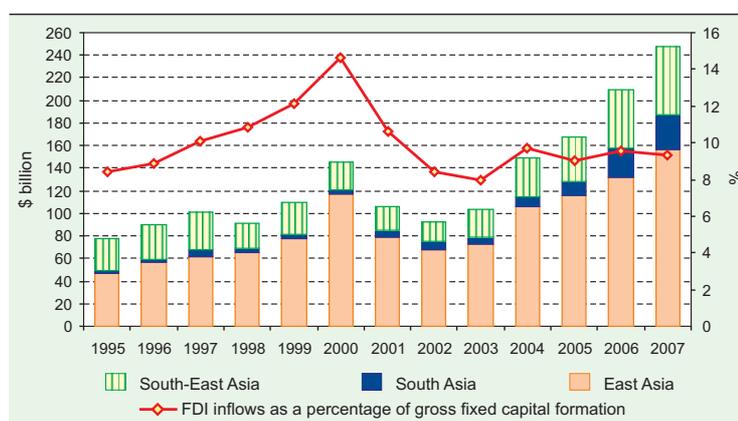
FDI flows into the region rose for the fifth consecutive year, reaching \$249 billion (a 18% increase) with higher inflows in most of the subregions (figure II.7) and in 30 out of 44 economies that report data (annex table B.1). The region remained the largest recipient of FDI flows among all developing regions and transition economies, accounting for two fifths of such flows in 2007. The top 10 recipients (figure II.8) accounted for more than 90% of flows to the region in 2007. Improvements in the investment environment, including further liberalization of FDI, resilient economic growth²⁸ and robust industrial development in some countries contributed to attracting FDI. Strong cross-border M&A sales in the region – which increased by 33% to almost \$82 billion in 2007 – also helped (table II.7 and annex table B.4). More than 75% of these sales were concentrated in five economies: Hong Kong (China), China, Singapore, Taiwan Province of China and India in that order (annex table B.4).²⁹

FDI flows to *East Asia* increased by 19% to \$157 billion. The subregion remained attractive to market-seeking and efficiency-seeking FDI. Inflows to China, increasingly targeted at services, high-tech industries and high value-added activities, rose to \$84 billion. The cumulative number of foreign-invested R&D centres in China exceeded 1,200

in 2008, up from 700 in 2004; and the number of TNC regional headquarters in Beijing and Shanghai alone reached more than 220 in 2007.³⁰ This development reflects both a shift of TNCs' strategy – from viewing China primarily as a low-cost production base to focusing on the country as a large and competitive market and a pool of knowledge manpower – and the Chinese Government's growing policy emphasis on attracting quality FDI. Inflows to Hong Kong (China) – \$60 billion in 2007 – benefited from its greater integration with the Chinese economy and a stronger position as a top location for regional headquarters. Flows to Mongolia also rose due to stronger economic growth and an improved investment environment. FDI inflows to Taiwan Province of China increased by only 10% to \$8.2 billion, compared to the 3.6-fold increase in 2006. However, inflows to the Republic of Korea dropped for the third consecutive year, to \$2.6 billion – the lowest level since 1997 – as a result of slower economic growth, high oil prices, appreciation of the won, and a decline in cross-border M&A sales.

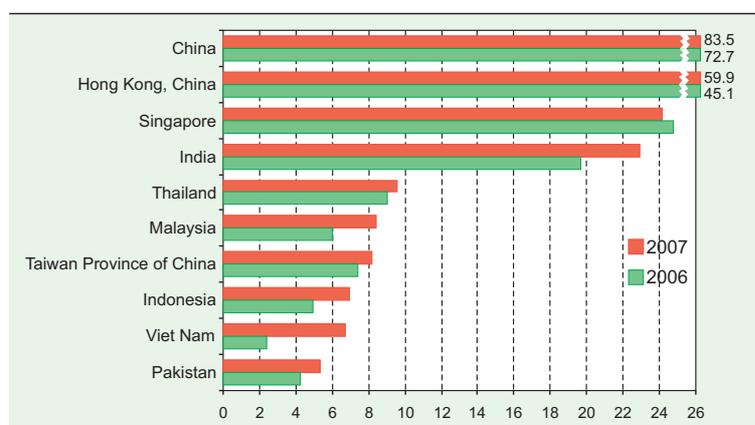
FDI flows to *South Asia* increased by 19% to \$31 billion, mainly due to a significant increase in flows to India and Pakistan. Robust economic growth, an improved investment environment and further opening up of the telecommunications, retail and other industries contributed to a 17% increase in FDI inflows to India, which surged to \$23 billion in 2007. Strong cross-border M&A sales were a key factor driving up such flows (annex table B.4). Substantial FDI in automobiles, telecommunications, real estate and other service industries, including large-scale investments by TNCs such as Vodafone, Oracle, Holcim and Matsushita, also boosted FDI inflows. The single-brand retail window introduced by the Government of India in 2006 (*WIR07*), which allows 51% foreign equity ownership, encouraged foreign brands to invest and expand their retail activities in the country. A survey of over 300 international

Figure II.7. South, East and South-East Asia: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex tables B.1 and B.3.

Figure II.8. South, East and South-East Asia: top 10 recipients of FDI inflows,^a 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.
^a Ranked by magnitude of 2007 FDI flows.

retailers found that more than a quarter of the retailers surveyed opened their first store in India in 2007 or are planning to do so in the near future (CB Richard Ellis, 2008). In Pakistan, economic growth and privatizations attracted increased inflows in the banking, telecommunications, oil and gas industries.³¹ A 17% rise in reinvested earnings also helped.³²

Table II.7. South, East and South-East Asia: cross-border M&As, by region/economy, 2005–2007
(Millions of dollars)

Region/economy	Sales of South, East and South-East Asian firms			Purchases by South, East and South-East Asian firms		
	2005	2006	2007	2005	2006	2007
World	52 454	61 402	81 523	49 205	56 721	89 025
Developed economies	28 207	30 879	47 811	31 042	27 745	64 668
Europe	12 029	8 821	23 044	19 540	11 919	22 086
European Union	11 213	8 017	21 835	18 461	11 105	20 202
France	605	558	698	758	2 396	367
Germany	860	690	1 327	591	1 452	1 000
Netherlands	115	411	1 550	433	575	499
United Kingdom	8 557	5 008	14 353	14 887	5 570	17 402
North America	13 692	15 680	17 894	8 265	12 746	29 691
United States	13 436	15 514	14 914	8 035	8 539	26 868
Other developed countries	2 485	6 379	6 872	3 238	3 080	12 891
Australia	1 440	2 941	2 276	2 549	2 195	9 997
Japan	1 041	3 307	4 580	546	595	1 227
Developing economies	21 475	28 874	26 485	17 678	28 895	24 320
Africa	1 671	131	224	333	3 935	456
Egypt	1 302	-	-	-	-	200
Nigeria	-	-	6	-	2 692	-
South Africa	187	-	80	-	972	102
Latin America and the Caribbean	131	1 311	1 815	128	1 119	913
Asia	19 673	27 433	24 446	17 204	23 841	22 948
United Arab Emirates	2 360	3 551	844	12	43	11
China	3 261	3 152	2 036	3 104	3 203	4 298
Hong Kong, China	6 007	4 203	5 669	5 001	8 427	4 947
India	344	531	2 977	501	2 069	1 610
Indonesia	216	191	789	1 298	239	1 957
Korea, Republic of	157	1 036	1 629	1 228	640	183
Malaysia	2 802	2 309	2 247	881	326	2 590
Singapore	3 461	11 726	6 726	4 425	2 463	2 982
Taiwan Province of China	174	116	552	278	686	2 155
South-East Europe and CIS	-	1 043	2 089	-	81	38
Kazakhstan	-	1 000	1 957	-	-	-

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Flows to Sri Lanka rose as well, boosted by a \$328 million investment in telecommunications by Telekom Malaysia – the largest investor in that country in 2007.³³ In Afghanistan, FDI inflows rose particularly in telecommunications, banking, hotels and mining.³⁴

Flows to *South-East Asia* or the *ASEAN* subregion increased by 18% in 2007, to \$61 billion – resulting in yet another year of robust FDI growth there. Nearly all ASEAN countries received higher inflows. Singapore, Thailand, Malaysia, Indonesia and Viet Nam, in that order, were the largest FDI recipients, together accounting for more than 90% of flows to the subregion. While FDI growth in 2007

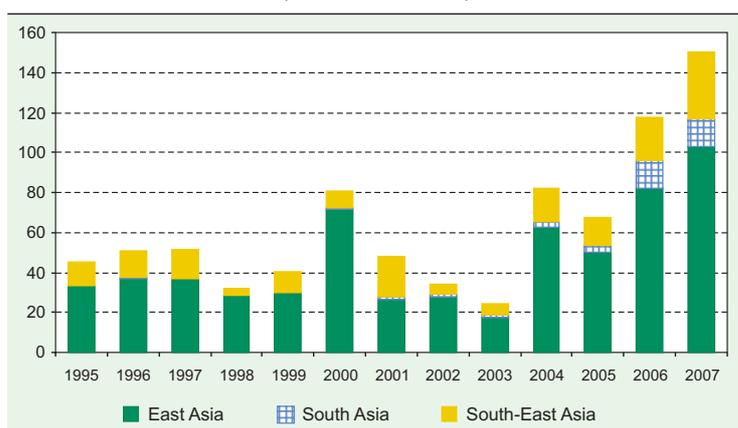
differed considerably between countries, the newer ASEAN member countries in particular (Myanmar, Viet Nam, Cambodia and the Lao People's Democratic Republic, in that order) recorded the strongest FDI growth, exceeding 70% in each. Favourable regional economic growth, an improved investment environment, higher intraregional investments, and strengthened regional integration were key contributory factors. Reinvested earnings were particularly strong,³⁵ highlighting the importance of existing investors as a source of FDI. Increased inflows in Viet Nam were the result of that country's accession to the World Trade Organization (WTO) in 2007, as well as greater liberalization and FDI promotion efforts, particularly with respect to infrastructure FDI. There were higher FDI inflows in extractive industries in Myanmar, in telecommunications and textiles and garments manufacture in Cambodia, and in agriculture, finance and manufacturing in the Lao People's Democratic Republic.

Despite higher inflows to a few island economies, FDI to *Oceania* fell by 17%, to \$1.2 billion. Higher inflows to the Marshall Islands, Papua New Guinea, Solomon Islands and Tonga were not enough to increase overall inflows to the subregion, as a larger number of island economies saw a decline in inflows compared to 2006 (i.e. New Caledonia) (annex table B.1). Higher inflows in Tonga were partly due to its WTO membership in 2007 and increased tourism FDI, while the entry of Digicel telecommunication (Jamaica) in Papua New Guinea contributed to increased FDI in that host economy. Inflows to Vanuatu declined in 2007 because of large dividend payouts to investors abroad.

ii. Outward FDI: growth led by services and extractive industries

With \$150 billion in outward flows in 2007 (figure II.9), South, East and South-East Asia subregions have become a significant source of FDI for other developing countries, both within and outside the region. This further strengthens their role in South-South cooperation (UNCTAD, 2007c and 2007f). An increasing number of developed countries are also attracting FDI from economies in the region, and some of their investment promotion agencies (IPAs) are establishing offices for this purpose, including in China, India and Singapore.³⁶ India is now among the top investors in the United Kingdom. China is rapidly becoming a leading investor in many developing countries, including some African LDCs. Firms from some ASEAN countries and the Republic of Korea have also been actively investing

Figure II.9. South, East and South-East Asia: FDI outflows, 1995–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

abroad, partly because of improved institutional support, encouragement by their governments and market constraints at home. For the first time in 2007, outflows from Malaysia and the Philippines exceeded inflows of FDI (figures II.8 and II.10). Firms from the region are investing overseas to acquire or build brand names, access markets, technologies, and natural resources and strengthen value chains (UNCTAD, 2007c; *WIR06*; *WIR07*).

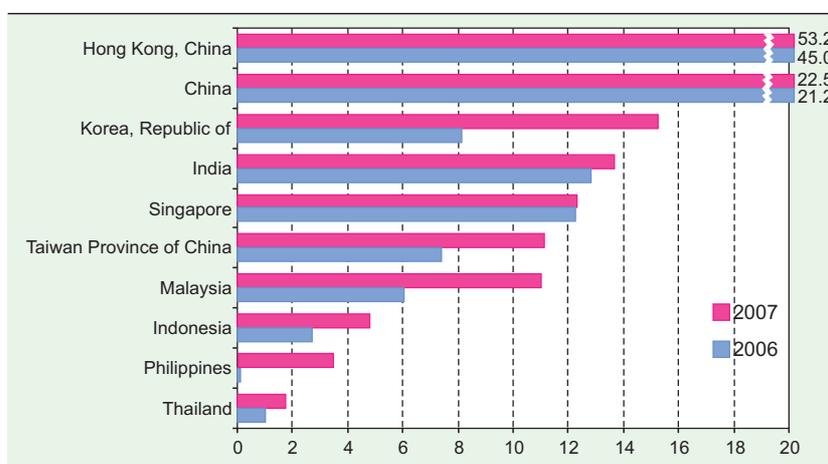
Cross-border M&A purchases by South, East and South-East Asian firms rose by 57% to \$89 billion in

2007 (table II.7). The region as a whole accounted for 49% of the total cross-border M&A purchases made by firms from all developing economies. The number of mega cross-border M&A purchases (i.e. with transactions of \$1 billion or more) by firms from these subregions rose to 14 with a combined value of \$45 billion in 2007 (compared with 13 in 2006 with \$25 billion), underlining their growing financial clout. The mega deals accounted for 51% of total M&A purchases from the region in 2007, compared with 44% in 2006.

Firms from the region continued to internationalize more actively than those from other developing regions: 60 of these firms are listed among the *Global Fortune 500* in 2008,³⁷ compared with only 53 in 2007. Some Asian companies are now among the world's most respected, according to a study of corporate reputations in 27 countries (Reputation Institute, 2008), as a result of their rapid internationalization and a growing role in world business. They also constitute about three quarters of the firms in UNCTAD's list of 100 top non-financial TNC from developing countries, ranked by foreign assets (annex table A.I.16).

Some of the differences between the region's TNCs, with respect to their investment strategies and industrial coverage, reflect in part the influence and encouragement of their home economies' governments and economic development. Chinese and Indian firms, while also investing in manufacturing and services, have relatively greater overseas investments in energy and extractive industries (*WIR07*) than

Figure II.10. South, East and South-East Asia: top 10 sources of FDI outflows,^a 2006–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.
^a Ranked by magnitude of 2007 FDI flows.

firms from Malaysia, Singapore and the Republic of Korea. The latter have ventured abroad, especially in infrastructure services, finance, telecommunications and manufacturing, largely because of saturated or limited markets and increasing competition at home.

The region of South, East and South-East Asia is also home to a growing number of large sovereign wealth funds (SWFs), reflecting rapidly rising foreign exchange reserves and proactive government policies (chapter I). These funds have also contributed to the growth of FDI from the region. For instance, Temasek (Singapore) has significant investments abroad, directly as well as through a number of firms under its control such as Singapore Telecommunications, PSA International and SembCorp Industries. About 40% of Temasek's foreign investments were in Asia as of 31 March 2007, while its overseas investments in developed countries declined from 30% in 2005 to 20% in 2007 (Temasek, 2007). A significant proportion of investment by Khazanah Malaysia (a Malaysian SWF) is in Malaysian companies such as UEM, Telekom Malaysia International, Opus Group Berhad and Bumiputra Commerce Bank, all of which have also considerable direct investments overseas. The China Investment Corporation (China), which was established only in 2007, has a sizeable \$200 billion to invest in assets at home and abroad. With growing foreign exchange reserves, India too is planning to establish a multi-billion dollar SWF to invest in energy assets abroad.³⁸

East Asia. Rising foreign exchange reserves and proactive government policies continue to boost FDI outflows from East Asia. TNCs from this subregion are also targeting developed-country firms for acquisition, particularly those based in the United States, partly because of a weak dollar and lower asset valuation of United States companies.³⁹ Outflows from Hong Kong (China) – the largest source of FDI from the developing world – rose significantly, to \$53 billion in 2007, more than twice the flows from China, which increased to an estimated \$22 billion (figure II.10). Firms from China continued to acquire strategic assets outside Asia, particularly in extractive industries in developed countries, Africa and Latin America.⁴⁰ Chinese steel companies, such as State-owned Baosteel and Sinosteel and privately owned Shagang, have been actively investing abroad in iron ore mining, including in Australia, to secure supplies.

South Asia. FDI from this subregion rose by 6% to \$14.2 billion, dominated by investments from India which rose to \$13.6 billion in 2007, much of it the result of a significant increase in cross-border acquisitions. Indian firms have been active investors in both developed and developing countries, particularly in pharmaceuticals, extractive industries, information technology and other business services. These firms,

are actively using cross-border M&As – which rose by 4.6 times, to \$30 billion in 2007 – as a mode of entry into host countries. The main industries targeted are steel, mining, energy, property and construction. Their growing outward FDI has been driven by increased corporate reserves, high profitability and a further relaxation of policies and encouragement by the Government. Progress in achieving an FTA with ASEAN and the launching of negotiations on a bilateral trade and investment agreement with the EU in June 2007 will likely further encourage Indian investments in these regions.

South-East Asia. Outward FDI from ASEAN rose by 51%, to \$33 billion. Singapore remained the subregion's most active outward-investor, and Malaysia is emerging as a significant player as well (figure II.10). Many Malaysian and Singaporean firms have invested in the infrastructure and construction industries in West Asia and ASEAN. In addition, many Malaysian banks, telecommunications and agro-based companies, and Singaporean telecommunications and financial corporations are increasing their presence in other ASEAN countries. Outward FDI from Indonesia rose by 77% to \$4.8 billion in 2007 and that from Thailand increased by 70% to \$1.8 billion – the highest ever outflows for the two countries. Internationalization of firms is not just confined to the larger economies in the subregion; firms from Viet Nam are also expanding abroad, although a majority of the overseas investments are by State-owned enterprises.⁴¹ The stronger intraregional investment and an active regionalization drive by ASEAN firms are strengthening the subregion's integration processes.

b. Sectoral trends: rising flows to all sectors

FDI inflows in 2007, as highlighted by M&A activities, rose in all three sectors – primary, manufacturing and services. Most of the investments were in services (primarily in transport and communications, finance and business services), followed by food and beverages (table II.8). There is also increasing demand in the region for more infrastructure-related FDI to support the rapid economic growth of countries such as China, India and Viet Nam. These countries are putting in place institutional support, undertaking reforms and improving their policy environment to attract infrastructure FDI. They are also encouraging public-private partnerships and promoting private sector investments in a wide range of infrastructure development activities. A survey by the Japan Bank for International Cooperation (JBIC) (2008) suggests that the region, especially China, India and Viet Nam, will need to boost investment in infrastructure, particularly in transport, electricity and water.

Table II.8. South, East and South-East Asia: cross-border M&As, by sector/industry, 2005–2007
(Millions of dollars)

Sector/industry	Sales			Purchases		
	2005	2006	2007	2005	2006	2007
Total	52 454	61 402	81 523	49 205	56 721	89 025
Primary	345	2 365	7 956	4 618	7 433	5 058
Agriculture, hunting, forestry, and fisheries	72	211	3 208	160	110	320
Mining, quarrying and petroleum	272	2 155	4 748	4 457	7 323	4 738
Manufacturing	14 615	13 063	20 386	9 941	12 703	22 976
Food, beverages and tobacco	6 309	1 337	6 680	1 826	1 093	3 020
Wood and wood products	94	213	1 274	44	141	21
Coke, petroleum and nuclear fuel	10	6	3	345	3 500	595
Chemicals and chemical products	3 340	913	1 917	680	1 846	1 773
Non-metallic mineral products	273	810	1 789	55	2	631
Metals and metal products	877	1 071	3 322	1 052	357	2 815
Machinery and equipment	36	2 501	1 325	47	791	5 719
Electrical and electronic equipment	2 641	2 981	2 598	4 496	1 491	6 121
Services	37 495	45 974	53 181	34 636	36 582	60 992
Electricity, gas and water	2 230	296	726	4 490	454	2 612
Construction	311	182	566	226	27	1 088
Hotels and restaurants	2 020	1 718	887	328	1 162	290
Trade	2 981	1 564	1 348	1 581	1 363	1 962
Transport, storage and communications	8 528	17 601	19 339	2 569	9 098	3 832
Finance	16 821	13 349	16 089	22 674	19 347	47 154
Business activities	3 926	8 822	11 311	2 624	4 861	3 442

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

In 2007, the share of FDI directed to the services sector in *East Asia* continued to increase. Banks and private-equity firms based in developed countries invested in financial services in Hong Kong (China) and Taiwan Province of China.⁴² The share of the services sector in China's total FDI inflows has risen significantly in recent years, from 28% in 2003 to 49% in 2007.⁴³ Nevertheless, manufacturing still accounts for a significant share of inflows to China, helping China remain the world's manufacturing powerhouse. However, the coastal areas of the country have begun to face competition from low-income countries in South and South-East Asia for FDI in low-end and labour-intensive production activities partly due to rising costs of production.⁴⁴ Some foreign firms are turning to inland China or to countries with lower wages in South and South-East Asia, such as Bangladesh and Viet Nam.

In *South Asia*, the increase in FDI was particularly significant in transport and telecommunications, as suggested by available data on cross-border M&As: sales in transport and communications in the subregion surged from \$4 billion in 2006 to \$14 billion in 2007. These industries accounted for 67% of the total M&A sales in the subregion in 2007. Investment by MTN (South Africa) in Afghanistan, significant Malaysian telecommunications FDI in Sri Lanka, foreign acquisitions of large stakes in Pakistani telecommunications companies (such as Warid Telecom, Pakistan Mobile Communications and Paktel) and the huge investment made by Vodafone (United Kingdom) in India contributed to the high growth of FDI in telecommunications industries in South Asia.

FDI inflows in all three sectors rose in 2007 in ASEAN. The primary sector saw the largest increase, to \$5 billion from a little under \$2 billion in 2006, due to the significant increase in flows into agriculture and forestry, and mining (table II.9). Most of the FDI in services continued to be in trade and commerce, finance and real estate. Cross-border M&A sales contributed to the increase in FDI inflows to all three sectors.

Firms from South, East and South-East Asia have been active outward investors in finance, telecommunications, extractive industries, real estate and infrastructure activities, including in manufacturing in 2007. Chinese and Indian firms were particularly active investors in extractive industries, both within and outside the region. Finance was the single largest target industry

for outward investment, accounting for about 53% of the total cross-border M&A purchases made by firms from the region in 2007 (table II.8). Firms from the region have also emerged as important players in the infrastructure industries both within the region and in other developing countries (chapter III).

Table II.9. FDI inflows by sector/industry in ASEAN, 2003–2007^a
(Millions of dollars)

Sector/industry	2003	2004	2005	2006	2007
Primary	4 700	780	2 453	1 717	4 988
Agriculture, fisheries and forestry	185	223	187	341	2 672
Mining	4 514	558	2 266	1 376	2 316
Manufacturing	6 782	14 138	17 137	16 147	20 116
Services	10 613	17 507	15 966	28 913	32 175
Construction	91	- 55	21	523	466
Trade and commerce	3 239	3 995	4 770	6 836	10 043
Financial intermediation and services	5 407	10 039	4 606	12 361	9 366
Real estate	812	1 106	2 432	4 154	6 094
Not elsewhere classified	1 899	2 754	3 602	4 544	2 018
Total	23 993	35 179	39 158	51 322	59 296

Source: Based on ASEAN Secretariat, *Statistics of Foreign Direct Investment in ASEAN, 2008* (forthcoming).

^a Data are preliminary.

Note: Data do not include the sectoral distribution of reinvested earnings and intra-company loans of the Philippines. The data reported by the Philippines were on an aggregate basis.

c. Policy developments

i. Inward FDI policy

In 2007, economies in the region continued to make national policy changes on inward FDI that were favourable to investors. According to UNCTAD's annual survey of changes in national FDI laws, nine countries introduced 13 policy changes in 2007, of which 10 were favourable to FDI.

Some governments in the region further relaxed ownership restrictions on foreign investors. The Government of India, for example, raised the foreign equity ownership limit in telecommunications to 74% in March 2007 from the previous limit of 49%. Extending its liberalization policies to other industries, India also raised the level of foreign equity ownership permitted in civil aviation, refineries, some mineral mining, construction, industrial parks and commodity exchanges in January 2008.⁴⁵ Viet Nam passed a new decree in May 2007 allowing foreign and local investors to participate in investment in the infrastructure sector⁴⁶ through build, operate and transfer (BOT) agreements and other similar arrangements.⁴⁷ As a result of its WTO membership in January 2007, Viet Nam also made a number of commitments to open up various industries to FDI, or relax restrictions, immediately upon accession or within a certain period of time (box II.5).

A variety of measures were also taken by countries in the region to facilitate investment. Some countries, for instance, increased the level of investment protection provided under their investment laws (e.g. Indonesia),⁴⁸ or relaxed foreign exchange controls and improved admission procedures (e.g.

Fiji). The Republic of Korea provided clearer criteria for screening acquisitions of local companies by foreign investors that may appear to pose a risk to national security.⁴⁹ A number of governments are also offering various types of incentives. For example, Malaysia is promoting investment in the Iskandar Development Region, a special economic zone (SEZ) in the State of Johor, by offering fiscal incentives and investment facilities. India decided to provide fiscal incentives to attract investments from major global companies to develop semiconductor production, and micro and nano technology manufacturing projects. Indonesia, the Republic of Korea and Thailand also introduced new investment incentives.⁵⁰ China amended its Catalogue for the Guidance of Foreign Investment Industries in 2007, with 351 industries included in the “encouraged” category, 37% more than the 2004 version. Industries such as electricity transmission and futures trading were opened to FDI for the first time.⁵¹

However, there were also policy changes that contributed to sectoral restrictions and tightening of the investment policy framework. For instance, China tightened foreign investment in the real estate industry (*WIR07*),⁵² and Indonesia extended the list

Box II.5. Liberalization commitments by Viet Nam under its WTO accession agreement, 2007

The liberalization of FDI entry in services under the WTO accession agreement will further improve Viet Nam’s investment environment, and is expected to increase FDI flows to the country (box table II.5.1). As noted in chapter I, the country is already among the top destinations for future FDI by large TNCs, and it is the most attractive emerging-market destination for retail investment (A.T. Kearney, 2008b).

Box table II.5.1. Viet Nam: Summary of WTO liberalization commitments on FDI entry in services^a

Sector	Current restrictions	Commitments to liberalization
1. Business services	For a few types of business services, foreign firms are temporarily restricted to providing services to other foreign investment enterprises (FIEs).	Within 1–3 years from accession, most restrictions will be lifted.
2. Communications	Postal services closed to FDI. Temporary restriction in express delivery services. Significant restrictions in basic telecommunications sector. Only joint ventures are allowed in audiovisual services and no opening up of radio and television.	Full liberalization of express delivery services 5 years after accession. Only partial opening of telecommunications services. Long-term restrictions to remain, mainly in facilities-based services including joint-venture requirement for facilities-based operators, with a maximum foreign ownership of 49%. Liberalization of non-facilities-based services allows foreign ownership of up to 65% by 2010.
3. Construction and engineering	For most types of construction and engineering services, foreign firms are temporarily restricted to providing services to other FIEs.	Full liberalization within 2–3 years of accession.
4. Distribution	In wholesale and retail trade, joint-venture requirement with a cap on share of foreign participation until 2009. Restrictions on certain goods.	Removal of joint-venture requirement by 2009. Establishment of foreign-owned retail outlets beyond the first one, subject to an economic needs test.
5. Education	FDI permitted only in higher education and in technical fields, sciences and technology, business studies, economics, international law and languages. Joint-venture requirement with cap on share of foreign participation until 2009.	Wholly foreign-owned investments allowed from 2009. Restrictions on fields of study to remain.
6. Environmental services	Some services will remain public or private (concession) monopolies. Joint-venture requirement with a cap on share of foreign participation until 2011.	Removal of joint-venture requirement by 2011.
7. Financial services	Temporary restrictions in insurance, banking and other financial services.	Most restrictions will be lifted by 2011, with some opening to FDI immediately upon accession.
8. Health	Few restrictions for hospitals.	Full foreign ownership is allowed.
9. Tourism and travel	FDI not permitted in guide services. FDI in travel agencies and tour operators requires joint-venture participation, without a cap on the foreign share.	Full foreign ownership is allowed in hotel and restaurant services and no limit on the foreign share in joint ventures in tour operator services.
10. Recreation, culture, sports	FDI not permitted in news agencies, libraries and museums.	FDI in entertainment services will be permitted from 2012, but only through joint ventures, with a maximum foreign participation of 49%.
11. Transport	Important restrictions apply, many in the form of requiring joint ventures with a cap on the share of foreign participation.	Increase in the cap on foreign participation in joint ventures or lifting of joint-venture requirement in important services such as maritime transport and services auxiliary to all modes of transport.

Source: WTO, “Schedule CLX – Viet Nam, schedule of specific commitments in services” cited in UNCTAD, forthcoming a.

^a It should be noted that this is only a summary – the restrictions and commitments to liberalization are more detailed and complex than those presented here.

Source: UNCTAD.

of business activities that are closed and partially restricted to foreign investment.⁵³

Notable developments in the region included a number of new bilateral agreements among Asian economies. For example, China entered into an investment guarantee agreement with the Republic of Korea and signed the Supplement IV to the Mainland and Hong Kong Closer Economic Partnership Arrangement, which came into effect on 1 January 2008. Under this expanded agreement, China further opened up 11 new services areas to investors from Hong Kong (China), in addition to the 27 areas that had already been opened. New double taxation agreements were signed between Singapore and China, the Republic of Korea and Saudi Arabia; and Myanmar and Viet Nam agreed on strategic cooperation in oil and gas.⁵⁴ The region also concluded 12 new BITs, involving six countries, bringing the total number of BITs concluded by countries in the region to 746.

Some developed countries continued to strengthen their ties with economies in the region. For example, the United States signed a trade and investment framework agreement with Viet Nam and an FTA with the Republic of Korea, and Japan concluded separate FTAs with Brunei Darussalam, Indonesia and Thailand.

At the regional level, an ASEAN comprehensive investment agreement is being negotiated among its member States to cover investment liberalization, promotion and protection within a single instrument. ASEAN also concluded a trade in services agreement with the Republic of Korea in 2007.

ii. Outward FDI policy

A number of new measures aimed at encouraging or supporting outward FDI were launched by some countries in 2007. Viet Nam issued a decree governing regulations and procedures on outward FDI in oil and gas. China, India, the Republic of Korea and Thailand introduced or adapted their outward FDI policies and regulations.⁵⁵ The objectives of such measures have been primarily to enable these countries to increase the competitiveness of their firms, including to secure access to natural resources. For example, China expanded its support to investments in Africa, by providing loan finance through the Export-Import Bank of China and establishing the China-Africa Development Fund to support African countries' investments in agriculture, manufacturing, energy, transportation, telecommunications, urban infrastructure and resource exploration. It also

supports the development of Chinese firms' activities in Africa (see Africa section in Chapter II).⁵⁶

d. Prospects: remaining promising

Despite the general concern over the global economic slowdown triggered by the sub-prime lending crisis in 2007, prospects for both inward and outward FDI flows to and from the region remain promising, as corroborated by recent surveys and studies. However, much will depend on the global economic situation in 2008, the financial health of companies that plan to invest or expand in the region, and progress in economic development and integration in Asia.

Several countries in the region have reported that FDI applications in the first half of 2008 were already significantly higher than in the same period last year.⁵⁷ Large investment projects in Afghanistan, India, Indonesia and Viet Nam, in particular, are expected to increase inflows to these countries. A number of recent surveys also point to a likely rise in FDI inflows into the region in 2008 and continued optimism on the part of TNCs concerning the region's business outlook (IIF, 2008a; PricewaterhouseCoopers, 2008a). UNCTAD's survey of investment prospects in 2008-2010 also indicates a promising outlook for the region (figure II.11).

Outward FDI from the region is likely to grow even further in the future, as Asian firms are increasingly aspiring to become significant regional – and global – players in their respective industries, such as telecommunications, banking, manufacturing and other services. Some high-profile cross-border M&A transactions (completed or announced) in the first half of 2008 also point to improving outward FDI prospects for the region.⁵⁸

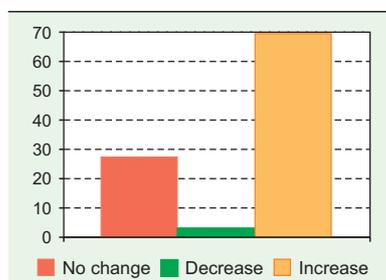
3. West Asia⁵⁹

a. Geographical trends

i. Inward FDI: a sustained increase

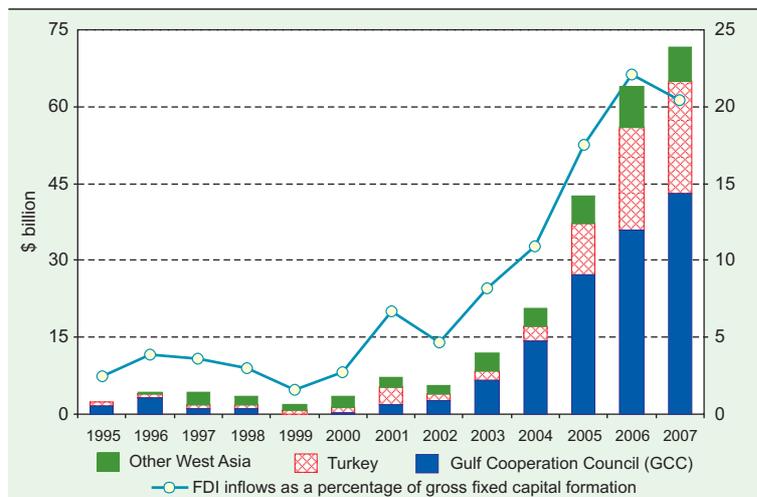
In 2007, FDI flows to West Asia rose by 12% to \$71 billion, marking the fifth consecutive year of growth (figure II.12). As domestic investment grew faster than FDI, the ratio of inward FDI to gross fixed capital formation fell slightly, from 22% in 2006 to 20% in 2007. Three countries, Saudi Arabia, Turkey and the United Arab Emirates (in that order) accounted for over four fifths of the region's total inflows.

Figure II.11. FDI prospects in South, East and South-East Asia, 2008–2010
(Percentage of respondents to the UNCTAD survey)



Source: UNCTAD, 2008b.

Figure II.12. West Asia: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex tables B.1 and B.3.

Inflows to Saudi Arabia grew by 33% (figure II.13) reaching a record level of \$24 billion. Turkey and the United Arab Emirates also benefited from record high levels, with 10% and 3% increases respectively (figure II.13). Although developed countries continued to be the major sources of FDI flows to the region, FDI by TNCs from developing countries has risen substantially. The major share of flows from developing countries is from other countries in the region, especially in the services sector, and is also concentrated in a few host countries.

In 2007, as in 2006, West Asia attracted greenfield FDI primarily from the United States, the United Kingdom, France and Germany, in that order. Greenfield FDI from South, East and South-East Asian countries, particularly China and India, was also significant, followed by intraregional FDI flows, especially from the United Arab Emirates and Saudi Arabia. Overall, however, the number of greenfield projects in the region decreased by 25% to 551 (annex table A.I.1).

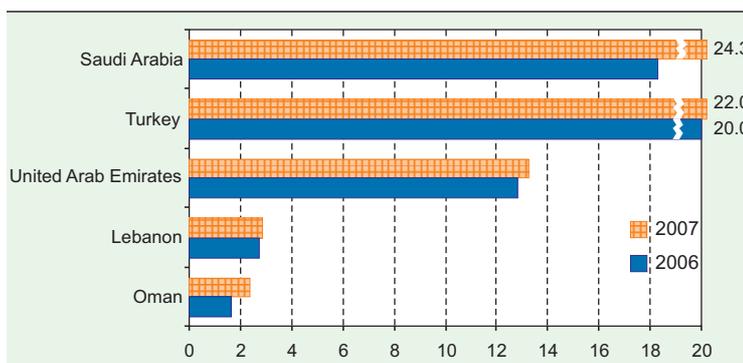
The value of cross-border M&As in West Asia rose by 8% compared to the previous year (annex table B.4 and table II.10). M&As by TNCs from developed countries increased in value by 22% in 2007 (table II.10), with firms from the United States, Sweden and the Netherlands, in that order, accounting for more than half of the total cross-border M&As. The value of cross-border M&As by TNCs from developing countries fell to \$7.7 billion (table II.10), and its share in total cross-border M&As also declined to 25%, from 37% in 2006.

Saudi Arabia was the leading FDI recipient in the region (figure II.13; table II.11) in 2007. Turkey followed, with inflows of \$22 billion – an increase of more than 10% compared with 2006 – despite worsening macroeconomic conditions such as slow growth and rising inflation. The increase in FDI reflected mainly large-scale privatizations and private sector cross-border M&A deals.⁶⁰ Major EU countries, particularly the Netherlands, Germany, the United Kingdom, France and Italy, together with the United States, Switzerland and Japan, traditionally have been the main sources of FDI in Turkey. Similarly, in 2007, European TNCs, particularly from the Netherlands, invested \$13 billion (Turkey, Treasury, 2008), of which M&A transactions

accounted for \$7.2 billion (Deloitte Turkey, 2008).⁶¹ The acquisition by the United States private equity firm KKR (Kohlberg Kravis Roberts) of U.N. Ro-Ro, the Turkish shipping company, for \$1.3 billion was the largest transaction ever by a foreign private equity firm in Turkey.

FDI inflows to the six Gulf Cooperation Council (GCC) member countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates) increased by 20% in 2007, to \$43 billion. These countries have seen relatively high inflows in recent years, especially Saudi Arabia, the United Arab Emirates and Qatar, due to a growing number of energy and construction projects, as well as a notable improvement in the business environment. The most significant rise in FDI in the subregion was in Qatar where there was a sevenfold increase from the previous year.

Figure II.13. West Asia: top five recipients of FDI inflows,^a 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.
^a Ranked by magnitude of 2007 FDI flows.

Table II.10. West Asia: cross-border M&As, by region/economy, 2005–2007
(Millions of dollars)

Region/economy	Sales of West Asian firms			Purchases by West Asian firms		
	2005	2006	2007	2005	2006	2007
World	14 100	27 979	30 272	20 293	41 763	43 244
Developed economies	5 098	17 506	21 361	10 321	26 976	32 634
Europe	2 903	16 324	12 261	7 054	18 427	3 462
European Union	2 903	16 324	11 709	5 363	18 427	2 972
France	337	434	1 221	-	747	-
Greece	-	5 136	182	-	490	-
Netherlands	-	751	3 454	3 487	-	836
Sweden	-	1	3 653	-	-	-
United Kingdom	11	5 980	1 204	1 563	16 167	1 372
North America	1 960	885	8 736	3 173	8 549	28 399
United States	1 927	880	8 736	3 173	4 909	26 802
Developing economies	7 399	10 451	7 659	9 972	14 126	10 449
Africa	-	6 003	513	103	5 290	1 805
Egypt	-	505	513	103	640	1 410
Sudan	-	-	-	-	1 332	-
Tunisia	-	-	-	-	2 313	-
Asia and Oceania	7 399	4 448	7 147	9 869	8 039	8 644
Kuwait	90	498	1 065	-	475	3 822
Lebanon	-	1 522	-	236	806	-
Qatar	352	-	4 240	-	-	-
Saudi Arabia	6 550	513	492	-	-	602
Turkey	93	580	-	6 643	1 080	780
Pakistan	-	-	-	150	2 636	12
Singapore	2	130	7	-	-	1 076
South-East Europe and CIS	1 602	22	612	-	661	161
Russian Federation	1 602	22	355	-	629	-

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Table II.11. West Asia: distribution of FDI flows among economies, by range,^a 2007

Range	Inflows	Outflows
Over \$5 bn	Saudi Arabia, Turkey and United Arab Emirates	Kuwait, Saudi Arabia, United Arab Emirates and Qatar
\$1.0 bn to \$4.9 bn	Lebanon, Oman, Jordan, Bahrain and Qatar	Turkey and Bahrain
\$0.5 bn to \$0.9 bn	Syrian Arab Republic	Oman and Iraq
\$0.1 bn to \$0.4 bn	Yemen, Iraq and Kuwait	Lebanon
Less than \$0.1 bn	Palestinian territory	Palestinian territory, Syrian Arab Republic, Yemen and Jordan

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Economies are listed according to the magnitude of their FDI flows.

FDI inflows to the other West Asian economies (Iraq, Jordan, Lebanon, the Palestinian territory, the Syrian Arab Republic and Yemen) were 20% less than in 2006, amounting to just \$6.5 billion (figure II.12). This was due to declining flows to two countries – Jordan and Yemen (annex table B.1). However, Lebanon (\$2.8 billion) and Jordan (\$1.8 billion) were among the major recipients within this subregion. Inflows to Iraq, although still small, reached \$448 million in 2007 due to oil and petrochemical projects.

The Palestinian territory attracted limited FDI (annex table B.1).

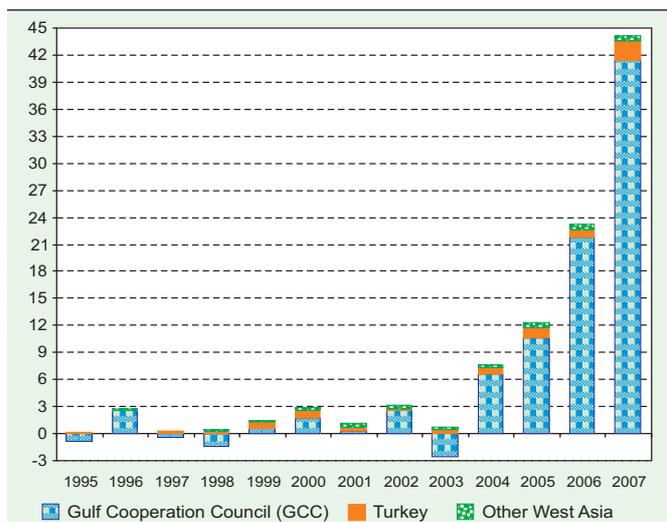
High oil prices have continued to boost economic growth rates in the oil-exporting countries of the region. Rising revenues have encouraged governments of the GCC countries to spend heavily on infrastructure, particularly for revamping water and energy industries and services, often in collaboration with private investors, including foreign ones. In addition, export-oriented economic activity in some West Asian economies, especially in Turkey, benefited from higher demand in European economies. All these factors have contributed to sustaining FDI inflows to the region.

ii. Outward FDI soared

FDI outflows from West Asia in 2007 increased for the fourth consecutive year, to \$44 billion. This was nearly six times its 2004 level (figure II.14). The top five outward investors in the region were Kuwait, Saudi Arabia, the United Arab Emirates, Qatar and Turkey (figure II.15). The GCC countries, led by Qatar, accounted for 94% of the region's outward FDI, with about \$41 billion in outflows.

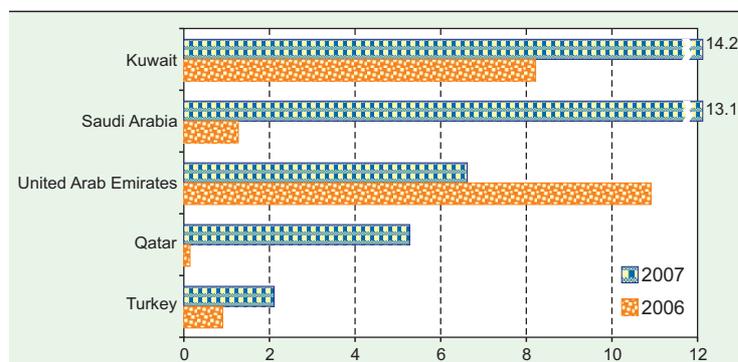
As in the previous year, West Asian companies invested in greenfield projects primarily in developing countries, especially those in South, East and South-East Asia. Major locations were China, India and Malaysia. Intraregional FDI in greenfield projects was also significant, particularly from oil-rich countries such as Saudi Arabia and the United Arab Emirates. The African continent is becoming another popular destination for outward FDI by West Asian TNCs.⁶²

Figure II.14. West Asia: FDI outflows, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

Figure II.15. West Asia: top five sources of FDI outflows, 2006–2007^a
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Ranked by magnitude of 2007 FDI flows.

The value of cross-border M&A purchases undertaken by TNCs from West Asia amounted to \$43 billion in 2007, a 4% increase over 2006 (table II.10). Acquisitions largely targeted firms in developed countries, which accounted for 75% of the value of cross-border M&As by firms from West Asia (table II.10), and particularly those in the United States, Canada and the United Kingdom. Companies in Kuwait were also important targets of acquisitions by firms from other West Asian countries and accounted for 9% of the value of total purchases. The largest cross-border acquirers were from the United Arab Emirates, followed by firms from Saudi Arabia and Qatar.

The GCC countries have built up a substantial windfall from oil exports since 2002 when global oil prices started to rise. This has enabled them to accumulate a huge stock of net foreign assets, estimated at around \$1.8 trillion (IIF, 2008b), and to implement their diversification strategy away from oil and gas production. SWFs based in the subregion are playing a key role in this respect (section I.C).

In addition to SWFs, a number of Islamic private equity firms and other alternative asset management companies from the GCC countries are investing abroad, particularly in developed countries. Although the United States has attracted the largest share of investments from GCC countries,⁶³ a growing number of GCC investors are now moving to Asia, particularly China and India, to diversify their investment portfolios. For example, GCC funds have also been investing in initial public offerings (IPOs) in China and India and in Asian real estate (IIF, 2008b).

A growing amount of GCC capital is being invested in various sectors such as banking, telecom, real estate and manufacturing in West Asia and North Africa, including export-oriented manufacturing activities to supply the European and West Asian markets, as a result of accelerating liberalization,

privatization, and the increasing use of Islamic financial instruments. Egypt, Tunisia and Morocco are among the most attractive host countries in North Africa for investors from West Asia, particularly from the GCC countries.

Turkish outward FDI has also been increasing,⁶⁴ with \$2.1 billion in FDI outflows in 2007. For example, Turkish chocolate manufacturer Ulker Group acquired the Belgian premium chocolate maker Godiva from United States-based Campbell Soup to add a global brand to its business. In addition, a number of Turkish textile and apparel producers have invested first in Eastern Europe, and more recently in Egypt and Jordan (box II.6). Sisecam, the largest Turkish glass manufacturer has made the largest greenfield investment ever in Bulgaria.

b. Sectoral trends: strong focus on services

In West Asia, both inward and outward FDI are heavily concentrated in the services sector, in particular finance and transport and communications as reflected in cross-border M&A activity (table II.12). FDI in manufacturing also accounts for an important share of the region's total outward flows.

Primary sector. Most West Asian countries ban FDI in their hydrocarbon industries, particularly in upstream activities. As a result, though there were some oil and gas investments in 2007, they were mainly related to downstream activities. But there are exceptions: Turkey received FDI inflows of \$341 million in the mining industry in 2007, following the Mining Law of 2004 that eased privatizations and foreign ownership (Turkey, Treasury, 2008). In the United Arab Emirates, ConocoPhillips won a \$10 billion contract to develop gas reserves at the Shah field.⁶⁵

Manufacturing. FDI in the manufacturing sector has been falling, particularly in energy-related industries, including oil refining and petrochemicals. However, investments in cement and steel production are increasing due to soaring regional demand caused by infrastructure investments. In the manufacturing sector, acquisitions abroad by West Asian TNCs, in particular from Turkey but also from Jordan and Egypt, increased significantly, to \$16 billion in 2007 from \$1 billion in 2006 (table II.12). There were also major investments in pharmaceuticals.⁶⁶

Services. Services continued to attract the largest inward FDI flows in West Asia in 2007, generally through cross-border M&As. Financial

Box II.6. Turkish outward FDI in textiles

From the late 1990s, Turkish textile and apparel manufacturers began investing in East European countries, such as Romania and Bulgaria, where labour costs were cheaper than in Turkey. Another reason for such investments was United States quota restrictions on imports from Turkey. However, following Romania's and Bulgaria's accession to the EU in 2007, and as a consequence of their rising production costs, Turkish investment in these countries stopped.

Quite recently, Turkish textile and apparel manufacturers, which have traditionally enjoyed a competitive advantage, started again to target foreign countries, particularly Egypt and Jordan. The cheaper energy and labour costs in these countries, as well as incentives such as provision of free land and infrastructure, increased their attractiveness as investment locations. For instance, Polaris International Industrial Park, the first privately owned and run industrial zone in Egypt, is a Turkish-Egyptian joint venture that is aiming to attract \$4 billion worth of Turkish investments by the end of 2011, particularly in textile and apparel manufacturing, but also in other industries such as furniture, automotive parts, glass and food processing. Turkish companies invest in Egypt mainly to export, especially to markets in Europe, West Asia and Africa, and to benefit from Egypt's direct access to the United States market through the Qualified Industrial Zones Agreement^a with that country and Israel. A further impetus has been Turkey's signing of an FTA with Egypt in December 2005. However, Turkey's investments have caused extensive public debate in the country over the issues of capital flight and relocation of competitive national industries abroad.

Source: UNCTAD, based on El Madany, "Turkey sets up its first industrial park in Egypt", *Daily News Egypt*, 17 January 2008.

^a Qualifying Industrial Zones are specific areas in Egypt that have a duty-free status granted by the United States. Therefore, companies located within such zones have duty-free access to the United States market with unlimited quotas and exemption from tariff and non-tariff barriers, provided that a defined percentage of inputs used derive from Israel and that products comply with international rules of origin.

services and telecommunications have been in the lead. For example, in Turkey, financial services continued to attract the most services-related FDI in 2007, with \$11.4 billion in FDI inflows (box I.8), followed by real estate with nearly \$3 billion⁶⁷ and transportation and telecommunications with \$1.1 billion (Turkey, Treasury, 2008). Retailing also attracted foreign investors in Turkey, as demonstrated by the recent acquisition of Migros by BC Partners (United Kingdom).

Regarding outward FDI, GCC investors, including Islamic private equity funds, are investing substantially in real estate in West Asia, North

Africa and Asia, particularly in India. For instance, Bahrain-based Gulf Finance House (GFH) raised over \$630 million from GCC investors in October 2007 to fund the development of Energy City India. Telecommunications TNCs from West Asia were also very active in outward investments within and outside the region in 2007.⁶⁸ In Jordan, a number of major investments from other countries in the region are taking place in real estate and tourism in Amman, the Dead Sea area and Aqaba, and there is growing interest in new infrastructure projects, with financing from the GCC countries. The Government of Saudi Arabia is encouraging its private sector firms to invest in agriculture in some countries, including Egypt, Sudan and Turkey, to secure food supplies.⁶⁹

c. Policy developments

In West Asia, the general trend in policy changes over the past few years suggests an easing of FDI restrictions and a more welcoming climate for foreign investment, especially in non-oil industries. Relevant policy measures were introduced in West Asia by three countries: Saudi Arabia, the Syrian Arab Republic and the United Arab Emirates.

In *Saudi Arabia*, the Supreme Economic Council shortened the list of areas that are closed to FDI in March 2007. Among the newly opened areas are services in the

Table II.12. West Asia: cross-border M&As, by sector/industry, 2005–2007
(Millions of dollars)

Sector/industry	Sales			Purchases		
	2005	2006	2007	2005	2006	2007
Total	14 100	27 979	30 272	20 293	41 763	43 244
Primary	46	489	139	70	466	1 783
Mining, quarrying and petroleum	46	485	135	70	466	1 783
Manufacturing	170	5 294	3 112	129	1 268	15 661
Textiles, clothing and leather	-	1 073	-	110	-	-
Wood and wood products	-	1 266	106	-	-	215
Coke, petroleum and nuclear fuel	-	1 054	392	-	-	-
Chemicals and chemical products	-	90	781	-	893	11 645
Metals and metal products	-	418	554	-	-	1 425
Motor vehicles and other transport equipment	55	112	-	-	-	2 261
Services	13 884	22 196	27 021	20 094	40 029	25 800
Construction	0	-	67	45	128	1 253
Trade	139	342	1 313	-	103	40
Transport, storage and communications	8 404	12 675	9 424	11 437	14 743	5 061
Finance	4 842	8 952	8 840	8 262	22 533	19 172
Business activities	351	139	3 220	-	1 797	6
Community, social and personal service activities	33	88	2 470	0	488	-
Amusement and recreation services	-	-	1 974	-	488	-

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

mining industry, rail transport of passengers within cities, air transport, satellite-transmission services, distribution services, wholesale as well as retail trade and commercial agencies (except franchise rights). Saudi Arabia also eased conditions for visas for foreign business people.

The *Syrian Arab Republic* took several steps to improve its investment climate. A new law allows foreign investors to own or lease land or property to establish projects in the country, and to repatriate profits and capital just six months after an investment is made. It also provides for new tax exemptions to foreign investors. The Syrian Investment Agency, established by law, is expected to play a key role in the implementation of national investment policies and in streamlining establishment procedures for foreign investors.⁷⁰

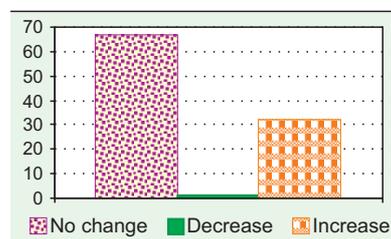
The *United Arab Emirates* announced in March 2008 a new company law to allow 100% foreign ownership of companies in some sectors (compared to the existing 49% limit) outside the free trade zone.⁷¹

At the international level, West Asian countries concluded 19 BITs involving seven countries in 2007. Oman and Qatar concluded five new agreements, while Jordan concluded four and Bahrain three new BITs. As far as DTTs are concerned, 16 new treaties, involving seven countries were concluded in 2007. Saudi Arabia was the most active with five new DTTs, followed by Qatar with three. In April 2008, the GCC successfully finalized negotiations on an FTA with the EFTA. In addition FTA negotiations are under way between different countries of West Asia and Australia, China, India, Japan, New Zealand, Pakistan and Turkey.

d. Prospects: FDI set to remain stable

According to UNCTAD's *World Investment Prospects Survey 2008–2010*, FDI prospects in West Asia are likely to be less favourable than those in South, East and South-East Asia, and Latin America and the Caribbean (UNCTAD, 2008b). Of the total respondents to this survey, 67% expected no change, while 32% expected an increase in FDI (figure II.16). Access to international/regional markets and the rate of growth of the local market were the most frequently cited reasons for investing in the region, while access to local capital markets, availability of skilled labour and expertise, cheap labour and availability of suppliers were the least cited. Availability of incentives and quality of infrastructure were also less frequently

Figure II.16. FDI prospects in West Asia, 2008–2010
(Percentage of responses to the UNCTAD survey)



Source: UNCTAD, 2008b.

cited than size of market, access to natural resources and government effectiveness. Turkey and the United Arab Emirates are the countries the most favoured by investors in West Asia, according to the survey. The unsettled situation in Iraq and uncertainties in Lebanon and the Syrian Arab Republic may affect investors' confidence in those countries as has long been the case.

4. Latin America and the Caribbean

FDI flows to Latin America and the Caribbean (LAC) rose in 2007 by 36%, to a record level of \$126 billion. The highest growth was noted in South America, boosted by the persistence of high commodity prices, with a particular upsurge of flows into Brazil. In Central America and the Caribbean (excluding offshore financial centres), FDI inflows also increased. By contrast, inflows to offshore financial centres dropped. At the sectoral level, the primary sector saw the strongest increase in FDI, and most manufacturing-related FDI went to natural-resource-based activities. In the services sector, foreign investors were faced with mounting competition from local firms in several industries. FDI outflows from the region decreased to \$52 billion, largely due to a marked decline in outflows from Brazil. Some countries in the region adopted a number of policy measures related to FDI that range from reducing incentives to restricting or prohibiting FDI. While such changes remained concentrated in the extractive industries, they have progressively been extending to other "strategic" industries as well, including infrastructure and food. However, other LAC countries took steps to improve their business environment and attract more FDI.

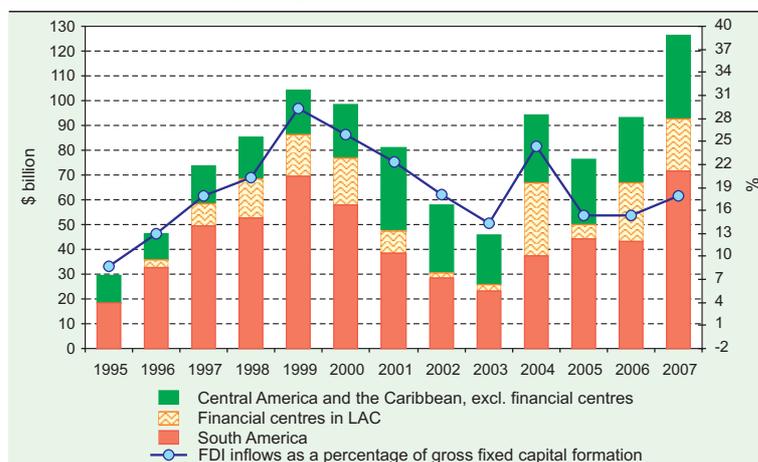
a. Geographical trends

i. Inward FDI surged mainly in South America

In 2007, the LAC region had record FDI flows: inward FDI surpassed the previous peak of 1999 to reach \$126 billion – a 36% increase over 2006. If offshore financial centres are excluded, inflows grew even more, by 53%, to \$105 billion. Countries in South America registered the highest average growth rate of inflows (over 66%), which reached \$72 billion. Inflows to the Central American and Caribbean countries (other than offshore financial centres) increased by 30% to \$34 billion, while those

to the offshore financial centres decreased by 13% to \$21 billion (figure II.17). FDI inflows to the region as a whole corresponded to 18% of gross fixed capital formation (figure II.17).

Figure II.17. Latin America and the Caribbean: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex tables B.1 and B.3.

Brazil accounted for a large share of the rise in FDI to become the leading recipient in 2007 with \$35 billion, followed by Mexico and Chile (figure II.18). The largest three recipients together accounted for 58% of all inflows to the LAC region, and for as much as 70% if offshore financial centres are excluded.

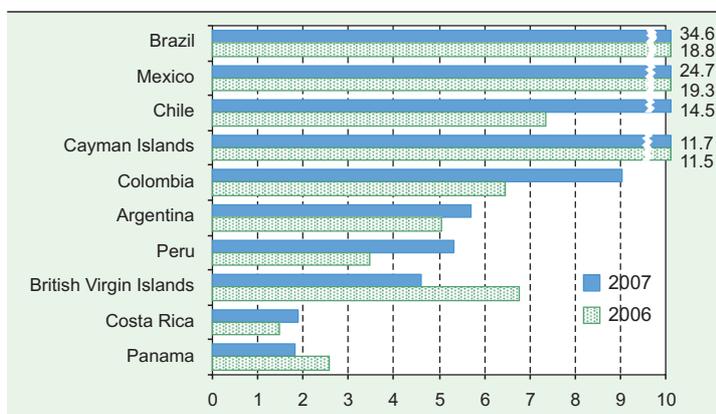
Cross-border M&A sales contributed to FDI growth in the region. They rose by 37% in 2007 due to increased acquisitions by developed-country firms (table II.13). Acquisitions of locally-owned assets by foreign firms were the type of cross-border M&A deals that increased the most, doubling in 2007. In spite of this strong increase, however, their value remained at a comparatively low level in 2007,⁷² indicating that greenfield investment continued to be the main driver of FDI, in contrast to the situation in the second half of the 1990s.

In South America, FDI inflows increased significantly in all the big recipient countries. In the largest three host countries (Brazil, Chile, Colombia) taken together, they soared by 78% and in Peru by 54%, while in Argentina they rose by 14%. In Brazil, the highest increases were registered in the primary sector (mainly in metal mining) and in natural-resource-based manufacturing (basic metallurgy, food and beverages, refineries, chemical products). In Chile, Colombia and Peru, the extractive industries attracted more than half the

inflows.⁷³ In general, FDI inflows continued to be drawn to this subregion by high commodity prices that directly attracted inflows into extractive activities and resource-based manufacturing, and indirectly affected FDI by boosting economic growth. The attractiveness of South America for foreign investors is reflected in the continuous increase in the rate of return on inward FDI since the commodity price boom that began in the early 2000s (see *WIR07*) (figure II.19). The largest increase in 2007 was in Chile and Peru, where it reached 23% and 36% respectively.

In Central America and the Caribbean (excluding the offshore financial centres), the rise of FDI inflows is largely due to the 28% increase registered in Mexico, which continued to attract most of the inflows in the subregion (73% in 2007). Flows to Mexico, traditionally sensitive to the economic cycle of the United States, were not affected by the economic slowdown that began in that country in the second half of 2007. This was because the activities that attracted the largest increases in FDI in Mexico were steel manufacturing, financial activities and mining, which are not oriented to the United States market. As for other activities more dependent on that market, delays in adjusting to new market conditions and the capacity of TNCs to diversify their export markets rapidly⁷⁴ and to increase their sales in the internal market may have contributed to preventing a decline in FDI in 2007. The next largest host countries were *Costa Rica* (\$1.9 billion) and the *Dominican Republic* (\$1.7 billion), where inflows increased, particularly in real estate and tourism. *El Salvador*

Figure II.18. Latin America and the Caribbean: top 10 recipients of FDI inflows,^a 2006–2007 (Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Ranked by magnitude of 2007 FDI flows.

Table II.13. Latin America and the Caribbean: cross-border M&As, by region/economy, 2005–2007
(Millions of dollars)

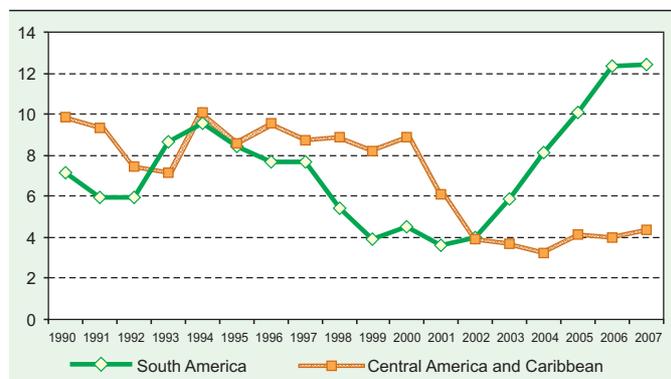
Region/economy	Sales of Latin American and Caribbean firms			Purchases by Latin American and Caribbean firms		
	2005	2006	2007	2005	2006	2007
World	17 905	22 561	30 696	11 458	33 820	41 923
Developed economies	14 824	17 572	25 046	8 425	30 052	35 610
Europe	10 455	8 383	14 129	3 681	3 246	3 078
European Union	9 963	4 952	13 415	3 681	2 656	2 427
France	863	83	2 388	1 195	725	71
Italy	2 080	438	1 933	1 467	605	-
Spain	901	1 153	4 300	554	559	1 124
United Kingdom	5 411	1 974	1 836	43	12	370
Other developed Europe	492	3 431	714	-	591	651
Switzerland	492	3 296	618	-	3	13
North America	3 853	8 718	10 113	4 700	26 164	16 914
United States	3 573	6 385	7 207	3 928	8 837	14 401
Other developed countries	517	471	804	45	642	15 617
Australia	185	55	24	34	560	14 992
Developing economies	2 958	4 651	5 567	2 962	3 768	6 314
Latin America and the Caribbean	2 830	2 312	4 499	2 830	2 312	4 499
Argentina	121	160	2	1 026	9	270
Brazil	1 094	244	1 257	1 571	609	597
Colombia	-	554	1 188	35	64	789
Mexico	1 552	987	905	104	967	422
Asia and Oceania	128	1 917	913	132	1 311	1 815
Asia	128	1 917	913	131	1 311	1 815
Bahrain	-	798	-	-	-	-
Hong Kong, China	11	678	301	18	11	230
Singapore	-	-	356	108	1 286	1 192
South-East Europe and CIS	-	15	-	71	-	-

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

^a Excludes offshore financial centres such as Belize, Panama, and the Caribbean countries other than Cuba, Dominican Republic, Haiti, Jamaica and Trinidad and Tobago.

registered a sevenfold increase, to \$1.5 billion, as a result of the acquisition by transnational banks of two important local banks.⁷⁵ Inflows to *Trinidad and Tobago* totalled \$1 billion, while the other countries in the subregion received less than \$1 billion each in 2007 (table II.14).

Figure II.19. Latin America and the Caribbean: rate of return on inward FDI^a by subregion, 1995–2007
(Per cent)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

^a This is the ratio of income on FDI to the average inward FDI stock. The average inward FDI stock is the average of the inward FDI stock at the end of the year and at the end of the previous year. Data on FDI income are from the IMF's balance of payments statistics and from national authorities. The data exclude offshore financial centres.

ii. Outward FDI fell in 2007 after a significant increase in 2006

FDI outflows from LAC, excluding offshore financial centres, decreased by 43%, to \$24 billion in 2007 (figure II.20).⁷⁶ This fall reflected in particular smaller outflows from Brazil (\$7 billion), following the exceptionally high level (\$28 billion) in 2006. Nevertheless, outflows from Brazil remained larger than in 2000–2005, when they averaged about \$2.5 billion per year. Outward FDI from Mexico rose by 43% to \$8.3 billion, while those from offshore financial centres increased by 37% to \$28 billion (figure II.21). Overall, however, FDI data may underestimate the pace of internationalization of Latin American companies. This is because some significant cross-border acquisitions have not been registered as FDI outflows in the balance of payments.⁷⁷

The fall in outward FDI was not caused by a slowdown in the internationalization efforts of Latin American companies; rather, it signified a return to more normal levels after the exceptional year of 2006. Latin American companies, mainly from Brazil and Mexico, are now competing for global leadership in such industries as oil and gas, metal mining, cement, steel, and food and beverages. In addition, beyond this traditional industries, new TNCs are appearing in, for example, software, petrochemicals and biofuel refining. For instance, Sonda (a Chilean software and information and communication technologies (ICT) services company) that has operations in several Latin American countries, made its largest investment abroad in 2007 when it acquired a Brazilian company for \$118 million (ECLAC, 2008). Mexichem (Mexico), with investments in Colombia and the United States, made two major acquisitions in Brazil (in chemicals) and in Colombia (in petrochemicals) in 2007, for a total value of \$750 million.⁷⁸ Finally, Brazil's national oil company, Petrobras, is investing in biofuels in Colombia and the Dominican Republic and in Africa, where it is sponsoring a number of biofuel projects in collaboration with China and the EU. It has recently teamed up with Eni (Italy) to explore African biofuel sources for export to Italy, and both companies are currently looking to collaborate on the construction of biodiesel plants in Angola and Mozambique as well as in Brazil.⁷⁹

b. Sectoral trends: growth led by primary and natural-resource-based activities

In 2007, the primary sector saw the strongest increase in FDI, and most manufacturing-related FDI went to natural-

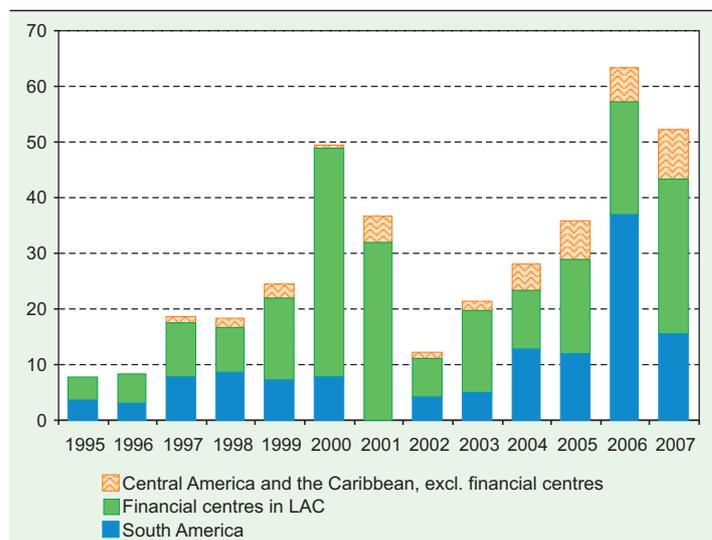
Table II.14. Latin America and the Caribbean: distribution of FDI flows among economies, by range,^a 2007

Range	Inflows	Outflows
Over \$10 bn	Brazil, Mexico, Chile and Cayman Islands	British Virgin Islands
\$5.0 bn to \$9.9 bn	Colombia, Argentina and Peru	Mexico and Brazil
\$1.0 bn to \$4.9 bn	British Virgin Islands, Costa Rica, Panama, Dominican Republic, El Salvador, Bahamas, and Trinidad and Tobago	Chile, Panama, Cayman Islands, Bolivarian Republic of Venezuela and Argentina
\$0.1 bn to \$0.9 bn	Uruguay, Honduras, Jamaica, Guatemala, Bolivarian Republic of Venezuela, Antigua and Barbuda, Nicaragua, Suriname, Saint Lucia, Anguilla, Netherlands Antilles, Bolivia, Paraguay, Ecuador, Guyana, Saint Kitts and Nevis, Grenada and Belize	Peru, Colombia, Trinidad and Tobago and Costa Rica
Less than \$ 0.1 bn	Saint Vincent and the Grenadines, Haiti, Turks and Caicos Islands, Barbados, Dominica, Puerto Rico, Cuba, Montserrat and Aruba	El Salvador, Guatemala, Aruba, Barbados, Nicaragua, Paraguay, Ecuador, Turks and Caicos Islands, Bolivia, Uruguay, Honduras, Belize, Cuba, Netherlands Antilles, Dominican Republic and Jamaica

Source: UNCTAD, FDI/TNC databased (www.unctad.org/fdistatistics) and annex table B.1.

^a Economies are listed according to the magnitude of their FDI flows.

Figure II.20. Latin America and the Caribbean: FDI outflows, 1995–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

resource-based activities. There is a concern, however, that this could be reinforcing a Dutch disease process⁸⁰ (Moreno Brid and Perez, 2008). Meanwhile, in the services sector, foreign investors are facing mounting competition from local firms in several industries.

i. Primary sector: more room for FDI in metal mining

The high and rising levels of commodity prices continued to have a mixed effect on FDI in

the primary sector in Latin America: governments as well as the private sector were eager to capture the extremely high rents accruing from the price hike. Despite policy shifts in some resource-rich countries that helped increase the State's share in profits and/or ownership, the sustained high price levels continued to attract foreign investors to these activities. However, the picture differs between hydrocarbons and metal mining, the latter allowing more room for FDI activity due to the absence of State-owned companies in all the countries except Chile.

In oil and gas, the dominant position or exclusive presence of State-owned companies has reduced the volume of FDI in the most richly endowed countries (the Bolivarian Republic of Venezuela, Brazil and Mexico). Other reasons for the lower FDI are, in some cases, drastic changes in the tax regime and contractual relations with private firms as in the Bolivarian Republic of Venezuela, Bolivia and Ecuador (discussed in *WIR06*, *WIR07* and the next section).

Most of the FDI inflows in oil and gas in 2007 were concentrated in Brazil and Colombia.

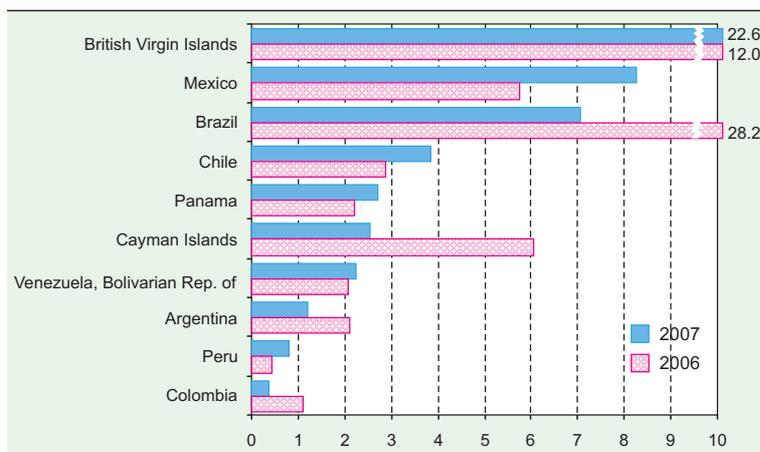
Inflows to Colombia increased by 90% to reach \$3.4 billion, while those to Brazil remained at almost the same level as in the previous year, at around \$1.3 billion. In Trinidad and Tobago, foreign companies that are exploiting offshore natural gas fields are optimistic about prospects for further oil and gas discoveries, and exploration activities are taking place in Chile, Guyana and Nicaragua.

In contrast, FDI in oil and gas in Bolivia, the Bolivarian Republic of Venezuela and Ecuador – that used to be among the most important FDI recipients in this industry in the region – were very low or negative in 2007, as a result of more restrictive FDI policies. However in Bolivia, fresh spending by oil and gas companies is now being spurred by the prospect of selling major volumes of natural gas to Argentina and Brazil, both of which are worried about security of gas supply. Petrobras, which had frozen its

new investments in 2006 following the issuance of a nationalization decree in Bolivia (see *WIR06* and *WIR07*), announced plans in late 2007 to invest \$750 million–\$1 billion in that country, including in new areas.⁸¹ This resumption of investments by Petrobras may encourage other major investors, including Spain's RepsolYPF, to follow suit.

A large share of FDI inflows in mining was concentrated in Brazil, Chile, Colombia, Mexico and Peru. In Chile, a large proportion of these inflows,

Figure II.21. Latin America and the Caribbean: top 10 sources of FDI outflows,^a 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.
^a Ranked by magnitude of 2007 flows.

estimated at \$7 billion (ECLAC, 2008), are reinvested earnings as a result of large profits in the mining industry.⁸² Mining FDI in Brazil increased more than fivefold in 2007, reaching \$3.3 billion, while it surpassed \$1 billion each in Colombia, Mexico and Peru.⁸³

As in oil and gas, metal mining is attracting increasingly large volumes of investment into countries that traditionally have not been important destinations for such investment. For example, FDI in metal mining in Mexico trebled in 2007 to \$1.2 billion, and BHP is investing in exploration in Guatemala and developing a bauxite project in Suriname. Also, more and more Asian firms are investing in the industry. For example, the State-owned Korea Resource company is exploiting a copper mine in Bolivia in a joint venture with Comibol (Bolivia), and Chinese investors are very active in the metal mining industry in Peru (ECLAC, 2008).

ii. Manufacturing: FDI favours resource-based industries

FDI flows in manufacturing were boosted in 2007 by the strong demand for resource-based manufacturing products both locally – as a result of sound regional economic performance – and internationally. In Brazil, metallurgy, foods and beverages, plastic and rubber products, oil and biofuel refineries, pulp, paper, metal, mineral and chemical products together attracted three times more FDI in 2007 than in 2006, and accounted for more than 90% of total inflows into manufacturing.⁸⁴ Resource-based industries attracted almost all of M&As in the manufacturing sector (table II.15). Mexico and Brazil were the main destinations for cross-border acquisitions by foreign firms in steel⁸⁵ and Brazil in biofuels.⁸⁶ Countries such as Colombia and the

Dominican Republic have also hosted FDI in these two industries mainly from Brazil due to their preferential access to the United States market.⁸⁷

Although overshadowed by resource-based manufacturing, the automotive industry remains an important FDI recipient in the region. The main automobile TNCs with operations in MERCOSUR and Mexico – such as Chrysler, Fiat, Ford, GM, PSA Peugeot-Citroën, Renault/Nissan and Volkswagen – are investing to increase production capacity, reactivate plants, develop new models and raise productivity. Firms with a smaller presence, such as Honda, Hyundai and Toyota, are also investing in new plants and in developing new models. In addition,

recently carmakers from India and China initiated investments in Latin America.⁸⁸ Latin American production units offer advantages for the production of small, low-cost cars and those running with alternative fuels, the demand for which is booming worldwide due to high oil prices and increasing environmental concerns. In South America, these advantages stem from host countries' long experience with specializing in the production of small cars. This was originally in response to demands from their local middle-income markets and later from decades of experience with biofuels in Brazil, which is a leader in the development of "flex-fuel" engines. Vehicle production in MERCOSUR is mainly geared to the local market, but is increasingly targeting Mexico and other emerging markets. Carmakers in Mexico – which offers the advantages of its proximity to the United States and of FTAs with the EU and Japan – are introducing new models to meet the growing demand from developed markets for smaller, cheaper and hybrid vehicles (ECLAC, 2008).⁸⁹

Finally, output from Central America's apparel assembly (*maquiladoras*) – an important FDI activity – has been slowing or declining in recent years, as countries in that subregion have lost market shares in the United States to Asian countries (see *WIR07*). In addition, they have to face a slowdown in the United States economy since the end of 2007. Falling export earnings have resulted in closure of firms and job losses. For example, Hanesbrands (United States) closed down several of its factories in Central America and the Caribbean in 2007, with the most jobs being lost in the Dominican Republic (2,500) and Mexico (2,200); and Fruit of the Loom (United States) shut down its operations in Honduras where it employed 800 people. Efforts have been made towards vertical integration to be able to supply

Table II.15. Latin America and the Caribbean: cross-border M&As, by sector/industry, 2005–2007
(Millions of dollars)

Sector/industry	Sales			Purchases		
	2005	2006	2007	2005	2006	2007
Total	17 905	22 561	30 696	11 458	33 820	41 923
Primary	939	1 285	1 750	927	17 928	4 066
Mining, quarrying and petroleum	939	1 144	1 470	927	17 928	4 064
Manufacturing	9 994	3 541	8 864	1 694	2 863	23 691
Food, beverages and tobacco	5 518	974	1 659	120	428	2 032
Coke, petroleum and nuclear fuel	-	631	251	377	754	-
Chemicals and chemical products	904	713	812	42	24	871
Rubber and plastic products	-	28	779	-	-	3
Non-metallic mineral products	1 025	155	374	647	271	14 803
Metals and metal products	2 429	530	4 157	424	491	5 123
Services	6 973	17 735	20 081	8 837	13 029	14 166
Electricity, gas and water	201	1 202	1 965	942	604	1 029
Hotels and restaurants	111	3 551	123	-	282	44
Trade	1 103	1 404	3 168	591	372	1 009
Transport, storage and communications	878	1 877	3 827	2 662	4 522	2 188
Finance	1 179	7 207	7 342	4 415	5 430	9 140
Business activities	2 668	1 838	2 122	108	1 279	36
Community, social and personal services	764	598	687	-	-	-

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Note: Data exclude offshore financial centres such as Belize, Panama, and the Caribbean countries other than Cuba, the Dominican Republic, Haiti, Jamaica and Trinidad and Tobago.

complete packages of higher value-added items for special niche requirements, and to offer the flexibility needed to quickly respond to seasonal changes in fashion in the clothing market. This strategy has been successful in El Salvador: companies that had moved their production operations from there to Asia are now returning (ECLAC, 2008).⁹⁰

iii. Services: local and regional players continue to gain strength

Some important developments related to FDI took place in the services sector in 2007, notably in telecommunications, electricity and banking.

In telecommunications, Telefónica's (Spain) acquisition of a controlling stake in Telecom Italia (Italy) has raised competition issues in various countries, including Argentina and Brazil. In Argentina, the acquisition gives Telefónica indirect control over the only two existing fixed-line operators in the country, a development which is under scrutiny by the local competition authorities, Comisión Nacional de Defensa de la Competencia (CNDC).⁹¹ In Brazil, where three foreign affiliates together control 83% of the mobile telephony market,⁹² the acquisition of Telecom Italia would give Telefónica control of the two largest mobile operators with a combined market share of around 58%. This has driven the Brazilian authorities to consider introducing legal changes that would allow the Brazilian fixed-line, broadband and mobile company, Oi Participações, to pursue its \$3.5 billion planned purchase of a controlling stake in its rival Brasil Telecom, the country's third-largest fixed-line operator.⁹³ This would result in the creation of a major local operator in the telecoms sector to face the

regional giants, Spain's Telefónica and Mexico's América Móvil.

In the electricity industry, divestment of assets by foreign firms – a trend initiated in 2003–2004 – continued in 2007, and concerned mainly firms from the United States as well as the French firm EDF. Assets sold by these firms were either acquired by local companies or other TNCs (see table II.16), attracted by their lower price and by long-term prospects of higher profits in markets with growing demand. Cross-border M&A deals in the electricity industry in Latin America and the Caribbean totalled \$8 billion in 2007, of which only 13% constituted sales of domestic companies to foreign firms, representing net FDI inflows, while 62% involved changes in ownership between foreign companies, and 25% were acquisitions by nationals of local assets owned by foreigners (net negative FDI inflows).⁹⁴

Finally, in the financial services industry, foreign entities acquired a number of local financial institutions in 2007. The largest deals were in Chile and El Salvador.⁹⁵ Among the deals that involved a change of ownership between foreign investors the most important was the acquisition in Brazil of Banco Real – ABN AMRO's (the Netherlands) affiliate in Brazil – by Santander (Spain), as a result of the latter's acquisition of the parent bank (ABN AMRO).⁹⁶ With this acquisition, Santander became the country's second-largest private bank in terms of assets, bringing an end to the traditional domination of the Brazilian banking sector by private domestic institutions such as Banco Bradesco and Banco Itaú (see *WIR06*).

c. Policy developments

As in 2005–2006 (see *WIR06* and *WIR07*), in 2007 some countries in Latin America adopted a number of policy measures related to FDI, which continued to reverse the trend towards liberalizing regulations and promoting FDI that had been dominant since the early 1990s. Such changes, which involved reducing incentives, increasing taxes and restricting or prohibiting foreign investment, while still concentrated in the extractive industries, have been progressively extended in some countries to other activities considered strategic, such as infrastructure and food. On the other hand, a number of initiatives aimed at promoting FDI have also been adopted in some countries.

The Bolivarian Republic of Venezuela continued its policy of extending State control

Table II.16. Latin America and the Caribbean: 10 largest cross-border M&A deals in electricity, 2007

Value (\$ billion)	Shares acquired (%)	Host economy	Acquiring company		Acquired company		Type of deals (effect on FDI flows)
			Company name	Home economy	Company name	Home economy	
1 451	100	Mexico	Gas Natural SDG	Spain	EDF - 5 Power Plants	France	Change of foreign ownership (no net FDI)
1 082	80	Jamaica	Marubeni Corp	Japan	Jamaica Public Service Co Ltd	United States	Change of foreign ownership (no net FDI)
837	93	Venezuela, Bolivarian Rep. of	PDVSA	Venezuela, Bolivarian Rep. of	CA La Electricidad de Caracas SACA	United States	Change from foreign to domestic ownership (negative FDI)
685	50	Chile	AEI	United States	Chilquinta Energia SA	United States	Change of foreign ownership (no net FDI)
660	95	Chile	CGE	Chile	Empresas Emel SA	United States	Change from foreign to domestic ownership (negative FDI)
615	100	Mexico	AES Corp	United States	Termoelectrica del Golfo S de RL de CV	United States	Change of foreign ownership (no net FDI)
390	100	Peru	SN Power Invest SA	Norway	Electroandes SA	United States	Change of foreign ownership (no net FDI)
340	16	Brazil	Interconexion Electrica SA	Colombia	CTEEP	Brazil	Change from domestic to foreign ownership (positive FDI)
211	100	Brazil	CPFL Energia SA	Brazil	CMS Energy Brasil SA	United States	Change from foreign to domestic ownership (negative FDI)
180	86	El Salvador	AEI	United States	Distribuidora de Electricidad del Sur SA	United States	Change of foreign ownership (no net FDI)

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

over industries considered strategic. Following its modification of contracts with foreign oil companies to give the State a majority stake in oil operations, and the takeover of the largest telecommunications and electricity companies in 2007 (see *WIR07*), the Government nationalized two locally owned food-related companies (amid higher food prices and shortages of some basic foodstuffs) in 2008.⁹⁷ It also took a 60% controlling share in three wholly foreign owned cement makers, affiliates of Cemex (Mexico), Lafarge (France) and Holcim (Switzerland), and announced plans to re-nationalize the steel company Sidor, controlled by Techint of Argentina, which had been privatized in 1997. In addition, the Government agreed in March 2008 to pay \$700 million in compensation to the Italian oil company Eni for its takeover in 2007 of Eni's stake in the Dación heavy oil field. This will leave ExxonMobil (United States) as the only company still pursuing a legal suit for compensation.⁹⁸ Finally, in April 2008 the Venezuelan Parliament approved a new tax on windfall oil profits.⁹⁹

In Ecuador, a presidential decree raised the Government's share of excess oil profits (those arising from oil prices above the contractual benchmark) from 50% to 99%, and the Government began to renegotiate contracts in January 2008 with five foreign oil companies: Andes Petroleum (China), City Oriente (United States), Perenco (France), Petróleo Brasileiro (Petrobras, Brazil) and Repsol (Spain). The purpose was to switch from production-sharing contracts to service contracts. This coincides with the rewriting of Ecuador's constitution that is

being drafted by a constituent assembly, which will review the Investment Promotion and Guarantee Act (1997), among others. The new constitution is expected to give the State substantial additional control over revenues from natural resources. In April 2008, the constituent assembly suspended all mining exploration and revoked 80% of unexploited mining concessions. These suspensions are to remain in effect until a new mining law is enacted, scheduled for October 2008.

In Bolivia, the Government nationalized the country's largest telephone company, Entel, in May 2008, and is negotiating an accord with Telecom Italia (Italy) on compensation for its takeover of the Italian firm's 50% share of the company.¹⁰⁰ The Government also announced its decision to take a majority stake or total control of some foreign energy companies.¹⁰¹

In Argentina, regulators removed tax exemptions for mining companies that will be required to pay export duties ranging from 5% to 10%. At least five mining companies have taken legal action against the Government for breaching a 1993 law guaranteeing no tax regime changes for 30 years.¹⁰² In addition, the Government increased the export tax on oil and gas, grains and oilseeds to help secure greater domestic supplies and curb inflation.

In the Dominican Republic, the Government has announced its intention to purchase Shell International's 50% stake in Refidomsa, the country's only oil refinery, to make it wholly State-owned.¹⁰³

In an opposite trend, Colombia and Trinidad and Tobago introduced policy changes in the

oil and gas industry aimed at promoting greater foreign participation. In Colombia, the Government announced a plan to sell 20% of the shares of the State oil company, Ecopetrol. In Trinidad and Tobago, the Government is considering changes in the tax and incentives scheme relating to the energy sector in order to increase investment in exploration and production, both of which have lagged in recent years. There will also be a review of the tax regime for downstream energy projects. In Peru, Congress approved a new law in 2008 to stimulate tourism-related investment around several of the country's most famous archaeological sites, but amended it later amid strong opposition and protests from local communities in Cusco.¹⁰⁴

Brazil and El Salvador took measures to promote investment in specific activities. In Brazil, the Government announced measures to boost exports of manufactured goods and reduce the country's dependence on commodity exports. The scheme will offer companies tax cuts and loans to finance the purchase of capital equipment and develop industrial infrastructure. In El Salvador, the Government passed the International Services Act that provides tax exemptions for some activities.¹⁰⁵

Colombia and Jamaica also took measures to improve their business environment. Some of the measures introduced by Colombia included electronic tax declarations, gradual reduction of income tax and simplification of the rules of accounting (ECLAC, 2008). In Jamaica, the Government has been awarded a \$90 million loan by the Inter-American Development Bank to improve the business environment by reducing the costs of doing business.¹⁰⁶

Regarding international investment agreements, Latin American countries concluded only four new BITs in 2007. This development mirrors efforts exerted by some countries in the region to narrow the scope of existing commitments to international investor-State arbitration. In this respect, some countries have denounced or withdrawn from the Convention of the International Centre for Settlement of Investment Disputes (ICSID) and are denouncing or renegotiating existing BITs. Ecuador, for example, suspended negotiation of new BITs until the enacting of a new constitution, notified 9 countries¹⁰⁷ of its decision to denounce such treaties, and will propose renegotiations to another 13 countries.¹⁰⁸ These renegotiations will aim at rebalancing investors' rights with the public interest, restricting access of private foreign

investment to certain strategic sectors and limiting future commitments on liberalization and national treatment. Another goal of these renegotiations is to include performance requirements and the definition of expropriation and dispute settlement clauses.¹⁰⁹ In terms of international arbitration, Bolivia withdrew from ICSID with effect from 3 November 2007,¹¹⁰ and on 4 December 2007 Ecuador notified ICSID that it would no longer consent to that body's jurisdiction in investment disputes related to exploitation of natural resources, such as oil, gas, minerals and others. Furthermore, the Bolivarian Republic of Venezuela and Nicaragua have made public that they are considering denouncing the ICSID Convention (Gaillard, 2008).

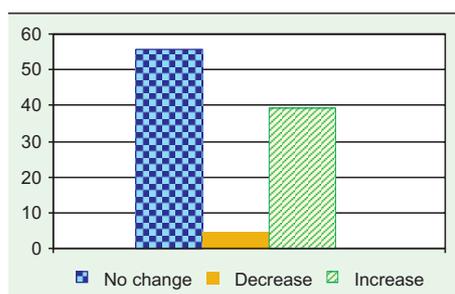
Meanwhile, other Latin American countries have continued to expand their network of FTAs that include investment provisions. After Colombia, Panama and Peru concluded FTAs with the United States in 2006, Uruguay and the United States signed a Trade and Investment Framework Agreement that establishes an institutional framework to follow up and monitor investment relations and opportunities. Chile signed an agreement with Japan for a Strategic Economic Partnership that includes a full chapter on investment protection and liberalization. Costa Rica signed an FTA with Panama and ratified the Dominican Republic–Central American Free Trade Agreement (DR-CAFTA).

d. Prospects: growth of inflows and outflows

In UNCTAD's *World Investment Prospects Survey, 2008-2010*, only 5% of the companies surveyed expected a decrease in FDI inflows to Latin America and the Caribbean, while 39% expected an increase and 56% anticipated no change (figure II.22). In JBIC's annual survey of FDI by Japanese manufacturing companies, Brazil and Mexico are ranked 7th and 12th respectively among the promising destinations for business expansion over the medium and long term. In Brazil, the growth potential of its local market is by far the most important reason for attracting FDI, as indicated by 77% of respondent companies (JBIC, 2008).

FDI inflows to Latin America and the Caribbean are expected to increase in 2008, mainly driven by South America, where high commodity prices and strong economic growth of the subregion will continue to

Figure II.22. FDI prospects in Latin America and the Caribbean, 2008–2010
(Percentage of respondents to the UNCTAD survey)



Source: UNCTAD, 2008b.

sustain TNCs' profits. Within South America, FDI inflows to Brazil and Chile are expected to reach new record highs, mainly boosted by metal-mineral extractive industries in Chile and resource-based manufacturing industries and extractive industries in Brazil. The other resource-rich countries of the subregion, such as Bolivia, Colombia and Peru are also expected to attract increasing FDI inflows to their extractive activities. Central America and the Caribbean, excluding offshore financial centres, will face an uncertain year for FDI inflows due to the slowdown of the United States economy, which is expected to affect investments in export-oriented manufacturing activities.

FDI outflows from Latin America and the Caribbean, excluding offshore financial centres, are expected to increase in 2008. Companies based in Brazil and Mexico have already announced ambitious investment plans for 2008 in manufacturing,¹¹¹ oil and gas production¹¹² and telecommunications.¹¹³

B. South-East Europe and the Commonwealth of Independent States

1. Geographical trends¹¹⁴

In 2007, FDI inflows to South-East Europe and the Commonwealth of Independent States (CIS) maintained their upward trend to reach a new record level. While various economies in the CIS experienced strong inward-FDI growth, with foreign investors eager to access their fast growing consumer markets and natural resources, privatization-linked projects remained the main drivers of FDI flows to South-East Europe. EU countries accounted for the bulk of both greenfield projects and cross-border M&As, though there was an increase in greenfield investments from North America. The drive to acquire strategic assets worldwide and control global markets segments spurred outward FDI from the CIS to record levels. Besides investing in the "traditional" locations of other transition economies, TNCs from the region are expanding their activities not only to Western Europe and North America but also to Africa. Governments in the CIS liberalized their policies with respect to FDI in industries deemed non-strategic, but strengthened their control over natural resources. In South-East

Europe, some countries adopted flat-rate tax systems that could improve their FDI prospects. Having experienced only a limited impact from the recent financial and credit crises, the CIS continues to enjoy growth in FDI, as foreign investors are encouraged by the potential growth of local markets and accession (or prospective accession) of these States to the WTO in 2008 and beyond.

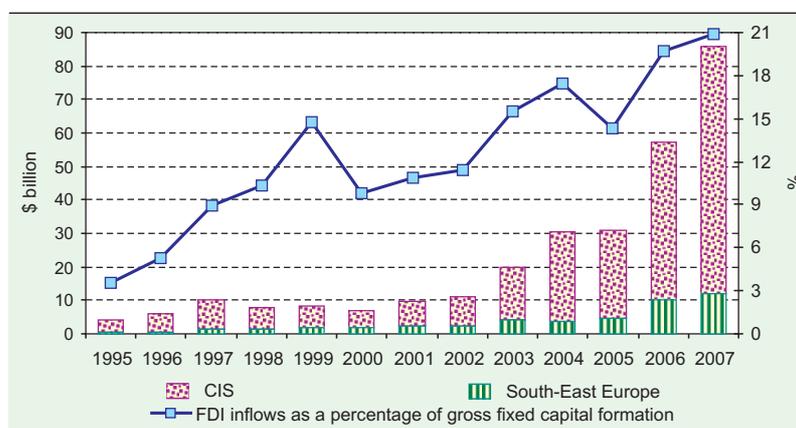
a. Inward FDI: growing market-seeking FDI

Inward FDI flows into South-East Europe and the CIS recorded their seventh consecutive year of growth, reaching an all-time high of \$86 billion (figure II.23). As domestic investment grew at a similar pace to FDI, the ratio of inward FDI to gross fixed capital formation increased only marginally, from 20% in 2006 to 21% in 2007. Inflows remained concentrated in a few economies, with the top five destinations accounting for 94% of the flows to the region (figure II.24).

In 2007, FDI inflows to the Russian Federation grew by 62%, reaching \$52 billion (figure II.24). Foreign investors responded positively to the fast growing local consumer market there and the ongoing liberalization of selected industries, in particular electricity generation. Driven by high expected returns, foreign TNCs also increased their investments in energy and natural-resource-related projects. Examples in 2007 include the framework agreements of the oil and gas TNCs StatoilHydro (Norway) and Total (France) with State-controlled firm Gazprom on the development of the large Shtokman field – the world's largest untapped natural gas deposit.

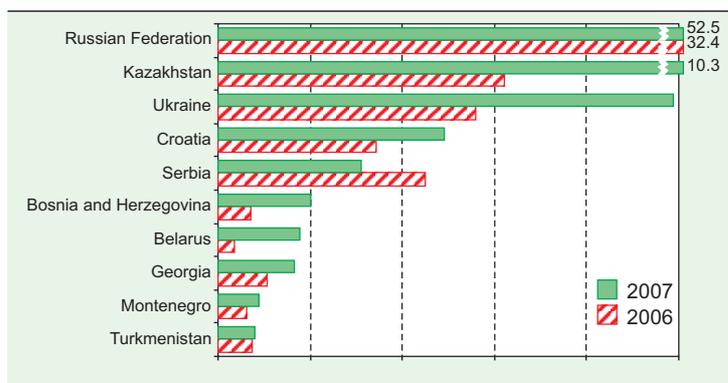
Even with the recent upsurge, the FDI potential of the Russian Federation remains higher than its performance, as shown by UNCTAD's Inward FDI Performance and Potential indices for 2006 (figure

Figure II.23. South-East Europe and CIS: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex tables B.1 and B.3.

Figure II.24. South-East Europe and CIS: top 10 recipients of FDI inflows, ^a 2006–2007 (Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Ranked by magnitude of 2007 flows.

II.25),¹¹⁵ suggesting that FDI inflows could continue growing further.

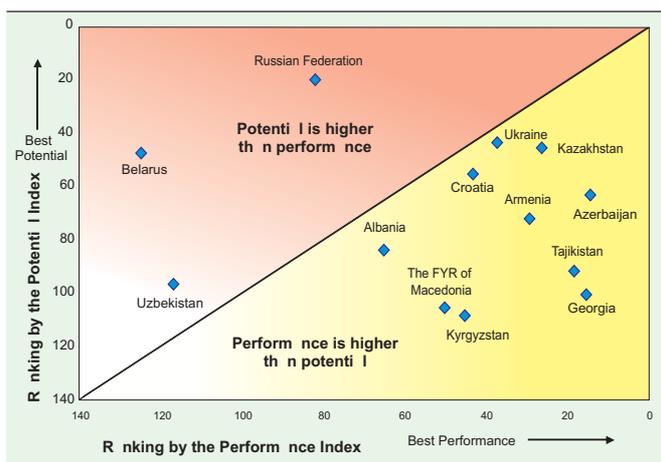
Kazakhstan, owing to the development of three main hydrocarbon projects, namely Kashagan, Tengiz and Karachaganak, was the second largest recipient of FDI inflows. The relaxation of foreign ownership restrictions in the financial services industry also accelerated the entry of foreign investors into Kazakhstan's banking. Indeed, the acquisition of ATF Bank from Unicredit (Italy) for \$2.1 billion was one of the biggest non-oil FDI projects in the country. Despite uncertainties caused by domestic politics during 2007, *Ukraine* attracted FDI inflows that reached a new high of almost \$10 billion, as its banking industry opened up to FDI as a result of the country's accession to the WTO, and large projects were initiated in real estate and in construction. In *Croatia*, the financial services industry was the largest recipient (60%) of record FDI inflows in 2007, while in *Montenegro*, inflows reached almost \$1 billion, making that small economy the top recipient of FDI per capita in the region.

In 2007, the number of countries in the region that attracted FDI inflows of less than \$1 billion fell to 10, compared to 12 in 2006 (table II.17). Developed countries, mainly EU members, remained the largest sources of inward FDI in the region. The share of the United States in the total number of greenfield projects increased from 11% in 2006 to 13% in 2007, while that of intraregional FDI in such projects declined from 11% to 9%. In addition, companies from developing countries invested in large greenfield projects in the CIS.¹¹⁶

With regard to cross-border M&As, developed countries, particularly members of the EU, increased their share of transactions in the region (in terms of

total value) from 46% in 2006 to 85% in 2007 (table II.18) (and from 57% to 58% in the number of deals). For example, with the acquisition by the Italian energy firms Eni and Enel of the assets of the bankrupt Russian oil firm Yukos, and the participation of Enel in the liberalized electricity industry, Italy became the leading source of cross-border M&As in the Russian Federation in 2007. It was followed by Germany, reflecting purchases by the electricity TNC E.ON of various assets in the Russian power-generating industry. The share of TNCs from developing countries as buyers in cross-border M&As of enterprises in South-East Europe and the CIS remained at 4% in 2007, the same as in 2006 (in terms of the number of deals).

Figure II.25. Inward FDI Performance and Potential indices rankings of selected countries, 2006



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table A.I.10.

Table II.17. South-East Europe and CIS: distribution of FDI flows among economies, by range, ^a 2007

Range	Inflows	Outflows
Over \$5.0 bn	Russian Federation, Kazakhstan and Ukraine	Russian Federation
\$1.0 bn to \$4.9 bn	Croatia, Serbia, Bosnia and Herzegovina, Belarus and Georgia	Kazakhstan
\$0.1 bn to \$0.9 bn	Montenegro, Turkmenistan, Armenia, Albania, Republic of Moldova, Tajikistan, The FYR of Macedonia, Uzbekistan and Kyrgyzstan	Serbia, Ukraine, Azerbaijan, Croatia and Montenegro
Less than \$0.1 bn	Azerbaijan	Georgia, Albania, Republic of Moldova, Bosnia and Herzegovina, Belarus, Kyrgyzstan, The FYR of Macedonia and Armenia

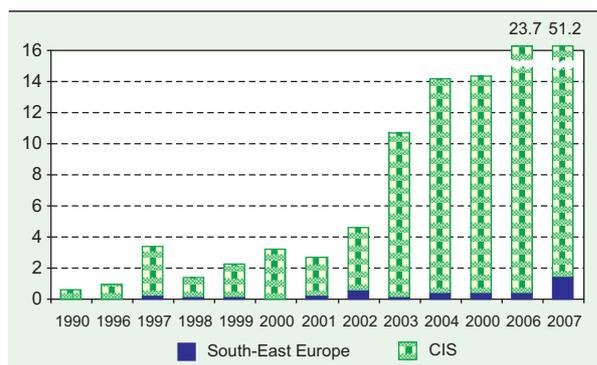
Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Economies are listed according to the magnitude of their FDI flows.

b. Outward FDI: Russian TNCs expanding abroad

In 2007, outward FDI from the region more than doubled, reaching \$51 billion (figure II.26). Most of the outward FDI projects, as in the past years, were carried out by Russian TNCs, followed by those from Kazakhstan. The value of cross-border M&A

Figure II.26. South-East Europe and CIS: FDI outflows, 1995–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

purchases by TNCs from the region almost doubled from 2006, with 72% of the activity taking place in developed economies (table II.18). On the other hand, almost two thirds of greenfield operations by investors from South-East Europe and CIS were undertaken in developing and transition economies.

Outward FDI from the Russian Federation reached a new high in 2007 (\$46 billion) strengthening its position as a leading investor from developing and transition economies. Russian TNCs increasingly look for strategic assets in the mature markets of developed countries, including downstream activities in the energy industry and value-added production activities in metallurgy. Most of the outward FDI from the Russian Federation has been undertaken by a relatively few big TNCs with large export revenues that have played a key role in supporting and financing the growth of their overseas business activities (Vahtra, 2007). In 2007, Russian steel companies acquired assets in North America (for example Evraz Group bought Oregon Steel Mills Inc (United States) for \$2.1 billion). In mining, the purchase of LionOre Mining (Canada) by Norilsk Nickel for \$6.3 billion was the largest ever foreign acquisition by a Russian company. In the oil and gas industry, Gazprom's expansion into European downstream markets slowed down, but it sustained the pace of its acquisitions of national gas distributors in other transition economies.¹¹⁷

Russian companies continued to expand into Africa in 2007, enhancing their raw material supplies and moving into new segments of strategic commodities. They entered the African market either directly (e.g. the purchase of Samancor Chrome in South Africa by a Russian investor group, and Gazprom's production-sharing agreement in the Libyan Arab Jamahiriya), or through acquisitions of parent firms in developed countries (e.g. the above-mentioned purchase of LionOre Mining (Canada), which allowed Norilsk Nickel to gain control over two major nickel mines, one in South Africa and the other in Botswana), or through asset-swap agreements with companies from developed countries that have concession rights in Africa (e.g. in the Libyan Arab Jamahiriya, Gazprom acquired a 49.9% stake in two oil concessions from Germany's BASF).

In 2007, outward FDI from Kazakhstan grew significantly, reaching \$3.2 billion. The country's State-owned oil and gas company, KazMunaiGaz, expanded abroad in order to secure markets for its oil exports as well as locations for overseas refineries. The company is expanding its operations in Romania and in the CIS, with an investment in an oil refinery on Georgia's Black Sea coast. Another State-owned company, the nuclear fuel and power generator Kazatomprom, aiming to access uranium-processing

Table II.18. South-East Europe and CIS: cross-border M&As, by region/economy, 2005–2007
(Millions of dollars)

Region/economy	Sales of South-East European and CIS firms			Purchases by South-East European and CIS firms		
	2005	2006	2007	2005	2006	2007
World	12 781	17 113	30 081	22 802	10 833	18 394
Developed economies	11 040	12 961	27 503	19 552	6 702	13 228
Europe	9 193	9 831	26 044	17 124	5 420	2 957
European Union	9 193	7 870	25 460	17 124	5 224	2 942
Austria	1 119	901	403	61	-	1 637
France	60	661	2 085	-	-	18
Germany	337	1 209	6 829	-	10	-
Italy	472	343	9 438	579	700	-
Luxembourg	4 803	-	1 065	-	805	45
United Kingdom	235	428	1 863	15 898	2 926	714
Other developed Europe	-	1 960	584	-	197	15
Norway	-	1 956	6	-	-	-
Switzerland	-	-	337	-	197	-
North America	1 652	2 743	1 367	1 967	1 282	9 720
Canada	29	167	42	-	4	7 876
United States	1 622	2 577	1 325	1 967	1 278	1 844
Developing economies	92	823	364	1 602	1 079	2 951
Africa	22	81	165	-	-	250
Asia and Oceania	-	742	199	1 602	1 064	2 701
Turkey	-	661	161	1 602	22	612
China	-	-	-	-	1 000	1 979
South-East Europe and the CIS	1 648	3 052	2 214	1 648	3 052	2 214
South-East Europe	6	14	864	65	14	1 020
Serbia and Montenegro	6	5	860	59	-	-
Commonwealth of Independent States (CIS)	1 642	3 038	1 350	1 583	3 038	1 194
Russian Federation	1 292	2 936	941	868	2 844	356

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

technology, purchased a 10% stake in the nuclear engineering group Westinghouse Electric (United States) from Toshiba (Japan) for \$540 million.¹¹⁸

2. Sectoral trends: services dominate

Judging from the data on cross-border M&As sales, the primary and services sectors of South-East Europe and CIS received significantly higher inflows in 2007 than in the previous year, while flows to manufacturing declined (table II.19).

Primary sector

In 2007, FDI to the primary sector increased, mainly in the petroleum and gas industry. Despite stricter conditions on entry, foreign companies continued to seek natural resources in the CIS. Two developments played a role in that respect. First, through asset swap deals, oil and gas firms of transition economies were allowed to enter downstream markets in developed countries in exchange for letting TNCs from the latter take minority participations in their own domestic exploration and extraction projects. For instance, in 2007, Winterstall (Germany) acquired a stake in the Yuzhno-Russkoye gas field in Siberia and Eni (Italy) gained access to exploration and production facilities in the Russian Federation (including former Yukos assets). In return, Gazprom could acquire parts of their European assets in hydrocarbons transportation, storage and distribution. Second, in some oil and gas projects requiring cutting-edge technology, such as the development of the Shtokman field, involvement of developed-country TNCs such as StatoilHydro (Norway) and Total (France) was needed because of their technology and expertise.

In 2007, companies from developing countries became more active through partnerships in the primary sector with major firms in the CIS. For example, CNPC (China) formed a joint venture with Rosneft to develop oil projects in the Russian Federation and downstream operations in China, while the same Chinese company formed another joint venture with Kazakhstan's State-owned nuclear energy company, Kazatomprom, to invest in uranium production in Kazakhstan.

Manufacturing

Cross-border M&A sales of firms in the manufacturing sector in South-East Europe and the CIS declined in 2007 compared to 2006. However there was increased TNC activity in the automotive industry as illustrated by the number of greenfield projects in that industry. This was fuelled by foreign manufacturers' search for low-cost, highly skilled labour and access to a growing market. Largely due to an industrial assembly policy that allows zero

Table II.19. South-East Europe and CIS: cross-border M&As, by sector/industry, 2005–2007
(Millions of dollars)

Sector/industry	Sales			Purchases		
	2005	2006	2007	2005	2006	2007
Total	12 781	17 113	30 081	22 802	10 833	18 394
Primary	2 504	3 335	9 683	16 093	3 555	3 536
Mining, quarrying and petroleum	2 504	3 331	9 281	16 093	3 555	3 536
Manufacturing	6 300	6 496	1 709	2 163	2 093	7 501
Food, beverages and tobacco	730	447	571	2	3	-
Wood and wood products	6	20	620	6	-	18
Coke, petroleum and nuclear fuel	-	2 353	157	-	-	22
Chemicals and chemical products	315	3 308	193	564	3	-
Metals and metal products	5 120	163	57	1 590	1 629	7 408
Services	3 977	7 282	18 689	4 546	5 185	7 357
Electricity, gas and water	49	567	7 353	52	2 358	-
Construction	-	6	30	-	-	1 644
Transport, storage and communications	1 210	2 772	1 320	876	857	2 010
Finance	2 420	3 508	9 082	3 599	1 947	2 749
Business activities	37	344	635	19	8	409

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Table II.20 Production of cars by foreign manufacturers in the Russian Federation, actual and announced, 2007

Manufacturer	Brand	Time of launching	City/region	Investments as of 2007 (\$ million)	Output in 2007 (annual)	Output by 2010 (annual forecast)
Operating in 2007						
GM-AvtoVAZ	Chevrolet	2002	Togliatti	534	45 000	75 000
Avtoframos	Renault	2005	Moscow	333	80 000	160 000
IzhAvto	KIA	2005	Izhevsk	70	62 000	100 000
Taganrog Automobile Plant (TagAZ)	Hyundai	1998	Taganrog	320	70 000	100 000
Avtotor	BMW, Chevrolet	1999	Kaliningrad	200	95 000	100 000
Ford Motor Company	Ford	2002	Vsevolozhsk	330	72 000	125 000
Severstal Auto	Fiat	2006	Tatarstan	18	15 000	40 000
Severstal Auto	SsangYong	2005	Tatarstan	70	10 000	10 000
Total:				1 875	450 000	710 000
Projects announced in 2007						
				Planned Investments (\$ million)		
Severstal Auto	Fiat	2008	Tatarstan	120	-	75 000
GAZ Group	Chrysler	2008	Nizhny Novgorod	150	-	40 000
Toyota	Toyota	2007	St. Petersburg	150	-	20 000
Volkswagen	Volkswagen	2007	Kaluga	552	-	115 000
General Motors	Opel	2008	St. Petersburg	300	-	70 000
Nissan	Nissan	2009	St. Petersburg	200	-	50 000
Hyundai	Hyundai	2010	St. Petersburg	390	-	20 000
Mitsubishi	Mitsubishi	2010	St. Petersburg	180	-	30 000
PSA Peugeot Citroen	Peugeot, Citroen	2010	Nizhny Novgorod	448	-	80 000
Suzuki	Suzuki	2009	St. Petersburg	120	-	30 000
Chery	Chery	2010	Kaliningrad	250	-	25 000
Total:				2 860		390 000
Total as of end 2010:						1 100 000

Source: "Volkswagen to become part of Russian auto industry" *Ria Novosti*, 28 November 2007.

customs duties on a long list of auto parts, many key players in international car manufacturing have opened production facilities in the Russian Federation (table II.20).¹¹⁹ The food and beverages industry also benefited from a high growth of FDI in 2007.¹²⁰

Services

The widespread shift of FDI towards services continued, driven in particular by investments in financial services, electricity generation and telecommunications. As the retail financial services market is far from saturated in the region, and liberalization of the banking industry is in progress under WTO commitments, there were a number of cross-border M&As in this industry in 2007.¹²¹ As part of ongoing plans to liberalize the power generation market in the Russian Federation, the State-controlled monopoly UES began to sell its power generating and distributing assets. In this process, foreign TNCs such as E.ON (Germany) and Enel (Italy) were active acquirers. Intra-regional M&As in the telecommunications industry also continued in 2007, with the largest transactions carried out by Vimpelcom (Russian Federation).¹²²

3. Policy developments

The rapid growth of FDI flows to South-East Europe and CIS countries partly reflects steps taken by countries in the region to open up their economies to foreign investment. At the same time, increased restrictions on inward FDI in certain sectors and countries may have a dampening effect on future flows. In 2007, UNCTAD's annual survey of changes in national laws and regulations identified eight policy measures that were introduced in the CIS and seven in South-East Europe.

Whereas most of the national policy changes observed in 2007 were in the direction of greater openness to FDI, only two of those changes made the environment for foreign investment less favourable. Some CIS countries introduced (or continued to implement) more restrictive policies in particular with regard to FDI in the extractive industries and other "strategic sectors". This trend mirrors developments in other parts of the world (chapter I; *WIR07*).

In Kazakhstan, a new natural-resource law was approved, which allows the Government to change existing contracts unilaterally if they adversely affect the country's economic interests in the oil, metals and minerals industries. The best-known

case of a related contract revision was that of the Kashagan oilfield, where KazMunaiGaz, the State-owned oil and gas TNC, increased its share in the project from 8% to 17% (figure II.27). Furthermore, in early 2008, the Government announced that it would no longer negotiate production sharing agreements, and that it would impose more stringent conditions on foreign investors. In the same vein, a new tax code was expected to be approved in 2008.

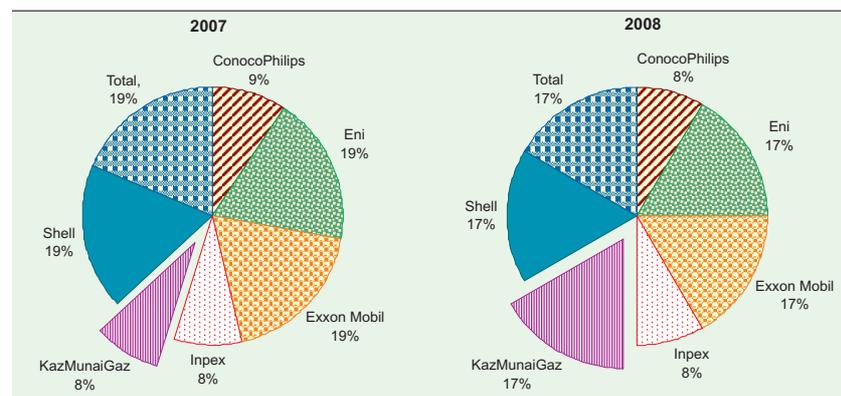
In the Russian Federation, the long-discussed Strategic Sector Law was approved in May 2008. It is intended to clarify rules on foreign investment in strategic industries, including procedures and foreign ownership limitations (box II.7 and annex table A.II.1).

Ukraine's accession to the WTO in 2008 is expected to stimulate inward FDI in certain industries such as in banking and steel.

In South-East Europe, policy changes observed for 2007 were part of broader market-oriented reform processes, often associated with EU (and sometimes NATO) accession. One feature of the changing policies is the effort to speed up privatization of the remaining SOEs.¹²³ In Croatia, a "one-stop shop" was set up to consolidate procedures for starting new companies. In the former Yugoslav Republic of Macedonia, tax payment procedures were simplified, and Georgia took steps to strengthen investor protection through amendments to its securities law. All three countries ranked among the top 10 "reform countries" in the World Bank's *Doing Business Survey* for 2008. Moreover, several countries introduced new, low corporate tax regimes. For example, Albania and the former Yugoslav Republic of Macedonia introduced a flat tax rate, with the aim of improving the investment climate and reducing the underground economy and the rate of tax evasion.

At the international level, countries in the region concluded 11 new BITs involving 9 countries in 2007. Azerbaijan and the Russian Federation concluded

Figure II.27. Distribution of shares among energy companies involved in the Kashagan project, Kazakhstan, 2007 and 2008



Source: United States, Energy Information Administration, 2008.

Box II.7. The Strategic Industry Law of the Russian Federation

In May 2008, the President of the Russian Federation signed the long-awaited law on strategic industries, *On the Order of Foreign Investment in Companies with Strategic Impact on the National Security of the Russian Federation*. The law provides a detailed framework for regulating foreign investment in companies operating in industries deemed to be of national or strategic importance (strategic companies). By requiring government approval for foreign investments in particular strategic companies, it enables the Government to regulate such investments on a case-by-case basis.

The list of industries deemed to be of national or strategic importance includes among others: nuclear and radioactive materials, military-related activities, large-scale radio and television broadcasting, the exploration for and extraction of natural resources on subsoil plots of federal importance,^a extraction of biological resources from waters and large-scale printing and publishing activities (see annex table A.II.1 for the full list).

According to the law, private foreign investors need the consent of a government commission before they can acquire direct or indirect control over any strategic company.^b While foreign State-owned firms or international organizations are not allowed to own majority shares in a strategic company, they may acquire up to 25% of the equity shares. A foreign investor does not need permission (a) if, at the time of the investment, it already controls more than 50% of a strategic company (non-subsoil); or (b) if it acquires up to 50% of the shares in a subsoil company in which the Russian Federation owns or controls more than 50%. However, permission is *always* required if the foreign investor is a State-owned firm. The procedure for obtaining the approval to invest in a strategic company will consist of several steps and involve a number of different agencies.

Source: UNCTAD based on Liuhto, 2008; and Allen & Overy LLP, 2008.

^a The definition of control means acquisition by private foreign companies of more than 50% of the shares, 50% participation in the charter capital or more than 50% representation on the board of directors of a strategic company. The threshold is 10% for a subsoil company.

^b Participation by foreign State-owned firms or international organizations of more than 25% equity share in a strategic company, other than a subsoil company, and of more than 5% in a subsoil company, needs approval by the government commission.

two new BITs each. In addition, 24 new DTTs were concluded involving 13 countries. Moldova concluded 4 new DTTs, followed by Azerbaijan, Belarus and Georgia with 3 new treaties each.

4. Prospects: natural resources will continue to attract FDI

In the UNCTAD's *World Investment Prospects Survey*, 41% of the companies surveyed expected an increase in FDI in the period 2008–2010 (figure II.28). Among the natural-resource-rich economies, while FDI prospects for Kazakhstan could be affected by the Government's less favourable policies for foreign investors, in the Russian Federation, foreign investors, accustomed to operating in a more restrictive business environment, seem ready to participate with their advanced technologies as minor partners in large oil and gas projects.

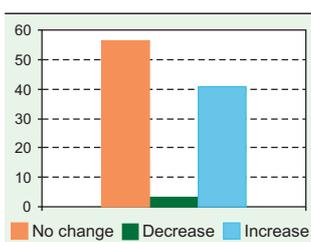
Rapid economic growth in South-East Europe and the CIS is expected to continue in 2008 (World Bank, 2007b; EBRD, 2007). FDI is likely to remain high in the region as whole, due to market opportunities, especially in consumer goods and services, as well as to increasing openness and transparency, competitive wage levels and an improving economic and institutional framework. Beyond natural resources, FDI could increase

in other activities such as electricity generation (e.g. in the Russian Federation), retail trade (as illustrated by the entry of Ikea of Sweden in 2008 into Kazakhstan) and banking (in Ukraine). In the automotive industry, the Russian Federation appeals to investors for its potential to become Europe's largest car market. Foreign manufacturers such as Volkswagen and Skoda have also started moving some production capacity to Ukraine, another relatively large potential market. A planned \$1 trillion multi-year programme of investment in infrastructure in the Russian Federation, with some foreign participation, could further increase FDI in the country (Deutsche Bank, 2007).

Privatization plans in a few countries of the region are expected to boost FDI. In Uzbekistan, the Government announced the privatization of 1,400 companies including 49% of the State-owned oil and gas company, Uzbekneftegas, and 49% of the country's main telecoms operator Uztelecom. In Ukraine, Odesa Port Plant, the largest trans-shipment facility in the CIS, will be privatized, while in Albania the privatization of large State-owned companies in oil and gas, insurance and electricity is planned in 2008.

According to a survey by PricewaterhouseCoopers (2008a), consolidation of the banking industry in the CIS,¹²⁴ as well the current global

Figure II.28. FDI prospects in South-East Europe and CIS, 2008–2010
(Percentage of respondents to the UNCTAD survey)



Source: UNCTAD (www.unctad.org/fdiprospects).

credit crunch could accelerate FDI in financial services, particularly in retail banking and insurance in the subregion. According to the A.T. Kearney's *FDI Confidence Index* (2008a), the Russian Federation was among the top 10 FDI destinations in the world, while Ukraine is the seventh most attractive investment destination for European investors. The annual survey of Japanese manufacturing TNCs by JBIC (2008) reported that the CIS region's attractiveness for Japanese investors was rising due to future market potential.

Outward FDI from the Russian Federation is expected to grow rapidly in the near future, not only to other transition economies and developed countries but also to developing countries, especially in Africa. State-owned TNCs such as Gazprom and Evraz can play a major role in that expansion. The role of Government in outward FDI is expected to be further strengthened with the establishment of the country's first sovereign wealth fund for investment purposes. In February 2008, the Russian Federation established a government investment company to manage a \$32 billion fund drawn from the Oil Stabilization Fund. This follows the same proactive approach to petrodollars as that adopted by West Asian governments (chapter I).

C. Developed countries

1. Geographical trends¹²⁵

In 2007, FDI inflows to developed countries rose by 33% to \$1,248 billion. As in previous years, cross-border M&As were mainly responsible for this continued rise. The high profitability of foreign affiliates of TNCs led to strong reinvested earnings that also contributed to increased FDI. FDI flows were particularly strong in manufacturing. In addition to flows from developed countries that are dominant, FDI by new investors from developing countries has also been on the rise. FDI outflows from developed countries amounted to \$1,692 billion, representing an increase of 56%.

The financial-market crisis that began in 2007, combined with weaker economic growth, especially in the developed economies, has been dampening FDI flows to and from developed countries in 2008. Cross-border M&As in developed countries declined considerably in the first half of 2008 compared to the second half of 2007, partly because private equity funds and hedge funds reduced their investment activities as their access to bank loans

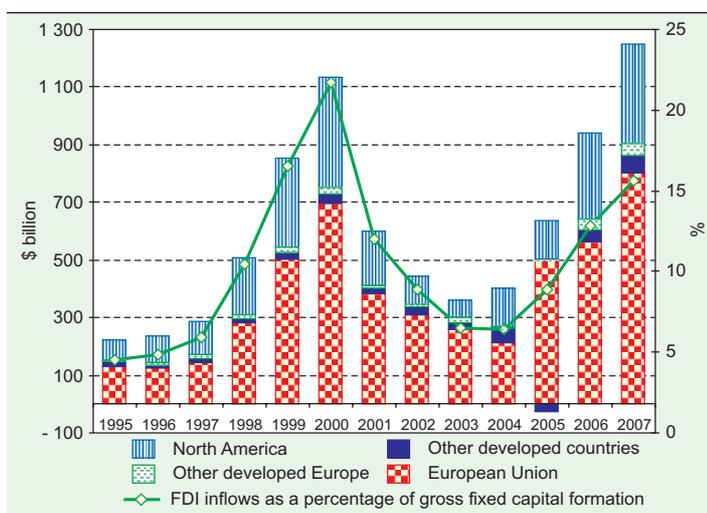
for large buyout transactions has been reduced. A renewed rise in FDI depends crucially on improved growth prospects in the world economy and financial market conditions. However, in 2009, economic growth in developed countries is expected to be low and financial market conditions could remain difficult (IMF, 2008c), which would curb FDI activity (OECD, 2008b). The results of UNCTAD's *World Investment Prospects Survey* point in the same direction.

a. Inward FDI: more vibrant in the EU

FDI inflows to developed countries increased for the fourth consecutive year in 2007, to reach \$1,248 billion (figure II.29). They rose considerably in the major developed-country subregions of North America and Europe, and in 20 out of 38 developed countries (annex table B.1). The United States retained its position as the largest single host country for FDI (table II.21 and figure II.30). Three EU countries (the United Kingdom, France and the Netherlands, in that order) received record FDI inflows. Japan's FDI inflows grew strongly for the first time since the end of the 1990s.

Inward FDI flows in *North America* grew by 14%, to \$341 billion (figure II.29) in 2007. Flows to the *United States* amounted to \$233 billion, down from \$237 billion in 2006 (figure II.30). Reinvested earnings of foreign affiliates in the United States remained strong (\$64 billion) and equity capital inflows increased further: at \$147 billion, they were 25% higher than in 2006. A series of high-value cross-border acquisitions of United States firms raised the equity capital stock of foreign TNCs in that country. There were 19 cross-border M&As valued at more than \$5 billion (annex table A.I.3), compared with 6

Figure II.29. Developed countries: FDI inflows in value and as a percentage of gross fixed capital formation, 1995–2007



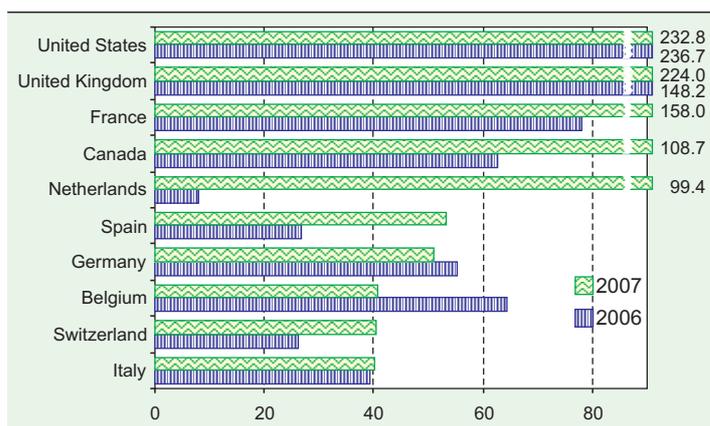
Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex tables B.1 and B.3.

Table II. 21. Developed countries: distribution of FDI flows among economies, by range,^a 2007

Range	Inflows	Outflows
Over \$50 bn	United States, United Kingdom, France, Canada, Netherlands, Spain and Germany	United States, United Kingdom, France, Germany, Spain, Italy, Japan, Canada, Luxembourg and Switzerland
\$10 bn to \$49 bn	Belgium, Switzerland, Italy, Austria, Ireland, Japan, Australia, Sweden, Poland and Denmark	Belgium, Sweden, Austria, Netherlands, Australia, Ireland, Denmark, Iceland and Norway
\$1 bn to \$9 bn	Israel, Romania, Czech Republic, Finland, Bulgaria, Portugal, Hungary, Slovakia, Iceland, New Zealand, Estonia, Latvia, Cyprus, Lithuania, Greece and Slovenia	Finland, Israel, Portugal, Greece, Hungary, Poland, New Zealand, Slovenia, Estonia, Czech Republic and Cyprus
Less than \$1 bn	Malta, Norway, Gibraltar, Bermuda and Luxembourg	Lithuania, Bermuda, Slovakia, Bulgaria, Latvia, Malta and Romania

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Economies are listed according to the magnitude of their FDI flows.

Figure II.30. Developed countries: top 10 recipients of FDI inflows,^a 2006–2007
(Billions of dollars)

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Ranked by magnitude of 2007 FDI flows.

in 2006 (*WIR07*). The largest FDI recipient industries were chemicals, wholesale trade, machinery, and computers and electronic products (Bach, 2008). The leading source countries of FDI in the United States were Luxembourg (accounting for 18% of the total), Canada (16%), and Japan (12%), followed by the Netherlands, France and Spain. European companies took advantage of the low value of the United States dollar vis-à-vis the euro, which made investments in the United States relatively cheap (chapter I). Despite a slowdown in economic growth following the outbreak of the crisis in the United States housing market and the financial turmoil affecting the banking industry, investors continued to be strongly attracted by the size of the United States economy, the high income levels and access to cutting-edge technology and research.

After doubling in 2006, FDI inflows into *Canada* again grew strongly, by 73%, to reach a new

historic record of \$109 billion. *Canada* therefore ranked fourth among the top developed-country recipients of FDI. The wave of cross-border investments in the Canadian mining and natural resource industries continued. *Alcan Inc.*, a Canadian aluminium producer, was acquired by *Rio Tinto* (United Kingdom/Australia) for \$37.6 billion in the second largest cross-border M&A deal in 2007. In the crude petroleum and natural gas industry three high-value acquisitions of Canadian companies by TNCs from the United States and the Netherlands totalled \$21 billion.¹²⁶ Natural resources and metallic minerals attracted the largest FDI flows among Canadian industries, while finance and insurance attracted the second largest (\$22 billion). As in previous years, strong economic growth and favourable business conditions in the Canadian economy were factors that stimulated FDI inflows to *Canada* in 2007 (*WIR07*: 36).

FDI flows into the 27 *EU* countries rose by 43% in 2007, to a total of \$804 billion. The restructuring and concentration process in the enlarged common market of the *EU* countries continued unabated and led to a renewed wave of cross-border acquisitions. Six of the ten largest M&As worldwide in 2007 took place in the *EU* (annex table A.I.3) while 7 intra-*EU* cross-border M&As were valued at more than \$10 billion. Cross-border M&As grew strongly in both value and number in a broad range of services and manufacturing industries. In addition, FDI inflows were driven by increased reinvested earnings as corporate profits of European firms remained strong.

Inward FDI flows to the 13 countries of the *European Monetary Union* (EMU) (or Euro zone) grew by 50%, to \$485 billion. A large part of the inflows was intra-EMU FDI spurred by favourable economic growth. European firms in the common currency area continued to consolidate their activities (Ricci, 2006). Seven of the 13 countries recorded a significant increase in FDI inflows. Inward FDI in the *Netherlands*, for instance, grew considerably, from \$8 billion in 2006 to a record \$99 billion in 2007 due to a single large acquisition, that of *ABN AMRO* by a consortium of three European banks for \$98 billion – the largest ever cross-border acquisition in the financial services industry worldwide (annex table A.I.3). FDI inflows to *France* doubled, to \$158 billion – a new record – raising the country's inward FDI stock to more than \$1 trillion. FDI inflows into *France* were spread over different sectors. Intra-company loans of foreign investors to their French affiliates contributed the most to the high level of FDI inflows (66% of total FDI inflows in 2007). Equity capital inflows increased

only slightly, as there were only a few larger cross-border acquisitions of French companies.¹²⁷ As in the Netherlands and France, FDI inflows into *Austria* also reached a record high in 2007. They increased to \$31 billion – more than the amount of inflows in the previous five years combined. The bulk of FDI was in the banking industry. Intra-company loans of foreign TNCs to their Austrian affiliates played a major role, as a number of European firms use Austrian affiliates as a gateway to invest in Eastern European countries.

Several other EMU-13 countries, including Spain, Ireland, Italy and Finland, also recorded an increase in FDI inflows. Inward FDI in *Spain* increased to \$53 billion in 2007, reaching a new record high. It was largely driven by some large cross-border acquisitions, such as the \$33 billion acquisition of the Spanish energy supplier, Endesa, by a consortium comprising Italy's Enel and Spain's Acciona, though it was heavily disputed. *Italy* recorded a marginal increase in inflows to \$40 billion. The country's inward FDI remained well above its average annual value of the past ten years. In *Ireland*, after three consecutive years of negative inflows due to large loan repayments of Irish affiliates to their parent firms, inward FDI flows increased to \$31 billion in 2007.

In five EMU-13 countries (Belgium, Germany, Greece, Luxembourg and Portugal) inward FDI flows declined in 2007. Inflows into *Germany* remained high, even though they fell slightly, from \$55 to \$51 billion. Relatively strong economic growth and an improved business climate may have contributed to the country's sustained high inflows.¹²⁸ Most of these inflows came from EMU partner economies, and were spread across different sectors. In contrast, FDI inflows to Luxembourg were negative (-\$36 billion) partly due to transactions related to the merger between Arcelor and Mittal Steel which were completed in two phases over the period 2006–2007.

Inward FDI inflows into three EU-15 countries that do not participate in the EMU were uneven in 2007 (table II.21). The *United Kingdom* retained its position as the largest FDI recipient in Europe in 2007 with inflows increasing by 51% (to \$224 billion). Three of the 10 largest cross-border M&As worldwide were recorded in that country (annex table A.I.3). Cross-border acquisitions of United Kingdom companies were spread across different sectors and industries, but were particularly prominent in electricity, gas and water supply, consumer goods, trade and construction.¹²⁹ Reinvested earnings of foreign affiliates grew strongly, contributing to the rise in FDI flows.

FDI inflows to the 12 new EU member countries remained at the same level in 2007 as in 2006, at \$65 billion. Inflows were unevenly distributed, with the top recipients Poland, Romania, Czech Republic and Bulgaria in that order, alone accounting for more

than two third of the group's total. *Poland's* rapidly expanding domestic market, its flexible and skilled labour force and solid banking system prompted a steady and sizeable flow of FDI, which amounted to \$18 billion in 2007 – close to the record FDI inflows of 2006. Investment by European companies dominated FDI in the 12 new EU members, but the United States was the largest single investor in the subregion due to some large acquisitions in the telecommunications industry.¹³⁰ Large State-owned companies from the CIS were also active acquirers of firms in the new EU-member countries (e.g. the acquisition of Rompetrol (Romania) by State-owned KazMunaiGaz of Kazakhstan¹³¹).

FDI inflows to *Japan*, the second largest economy in the world after the United States, increased considerably in 2007 to \$23 billion. After several years of low flows (with negative inflows in 2006) Japan received the highest annual inward FDI ever. A rise in equity capital inflows, essentially driven by the single largest acquisition ever in financial services in Japan (the \$8 billion acquisition of Nikko Cordial by Citigroup (United States)), as well as an increase in intra-company loans of foreign TNCs to their Japanese affiliates, contributed to the increase. Foreign investments in distressed assets in the services sector (e.g. hotels and restaurants, real estate), in small and medium-sized enterprises (SMEs) and in other firms facing difficulties in the manufacturing sector continued. However, a recent tightening of regulations empowering the Government to screen all FDI cases in strategic industries is raising concerns among foreign investors (see section C.3 on policy developments). At the same time, the use by Japanese companies of measures (e.g. poison pills) against takeovers by foreign firms, including private equity funds, may adversely affect the current FDI recovery.

Inward FDI flows to *Switzerland* increased considerably by 54%, to \$40 billion in 2007. Several high-value acquisitions of Swiss pharmaceutical and financial services firms as well as investments in holding companies¹³² contributed to the increased flows.

In 2007, the value of cross-border M&As sales of developed-country firms rose by 50% to \$1,454 billion (table II.22). The number of M&A deals grew by 10%, to more than 7,800. The renewed strong increase was driven by continued economic growth and favourable economic prospects, which lasted until mid-2007. Since then, the financial crisis and the weakening of the United States economy have dampened the positive outlook, but they did not have strong negative effects on cross-border M&As in late 2007 (chapter I). TNCs from developed countries – well endowed with financial resources stemming from high corporate profits – contributed to a growing number of mega M&A deals (i.e. those over \$1 billion; see annex table A.I.3 for those with

Table II.22. Developed countries: cross-border M&As, by region/economy, 2005–2007
(Millions of dollars)

Region/economy	Sales of developed country firms			Purchases by developed country firms		
	2005	2006	2007	2005	2006	2007
World	820 358	969 116	1 454 084	777 609	930 101	1 410 802
Developed economies	708 877	841 587	1 281 706	708 877	841 587	1 281 706
Europe	473 463	496 680	749 713	521 482	542 417	788 535
European Union	444 390	436 476	707 845	501 596	501 675	748 648
France	83 678	70 352	102 035	52 127	42 811	61 732
Germany	40 178	50 944	101 719	85 549	73 802	98 422
Italy	30 140	18 468	62 021	29 288	31 954	31 091
Netherlands	87 414	23 245	25 790	102 773	33 905	208 183
Spain	29 690	85 781	45 053	27 290	20 389	64 562
Sweden	19 808	10 537	36 440	16 083	21 855	11 943
United Kingdom	113 310	87 178	276 434	131 298	184 227	208 356
Other developed Europe	29 073	60 204	41 868	19 886	40 742	39 887
Switzerland	15 943	45 693	25 600	10 290	35 489	31 894
North America	180 275	262 260	436 669	157 001	257 060	398 710
Canada	29 639	46 040	72 743	32 911	39 179	108 561
United States	150 636	216 220	363 927	124 090	217 880	290 149
Other developed countries	55 139	82 647	95 324	30 394	42 111	94 461
Australia	38 724	39 395	50 296	13 150	20 543	28 861
Bermuda	1 612	1 310	1 076	2 392	3 080	44 021
Japan	11 748	30 570	31 080	9 291	4 657	18 246
Developing economies	65 587	101 914	137 070	57 692	75 544	101 594
Africa	15 795	16 934	3 897	9 561	9 505	7 160
Egypt	12 825	5 129	868	1 410	2 336	-
South Africa	2 870	11 803	3 013	6 030	5 384	6 322
Latin America and the Caribbean	8 425	30 052	35 610	14 824	17 572	25 046
Brazil	1 591	22 356	10 404	1 515	5 533	7 828
Mexico	2 136	3 313	17 321	3 406	1 127	5 581
Asia and Oceania	41 366	54 928	97 563	33 306	48 467	69 388
Saudi Arabia	53	4 451	12 707	-	21	-
Turkey	243	202	1 026	4 541	15 320	13 593
United Arab Emirates	4 727	16 351	14 631	192	49	4 266
China	6 223	8 962	2 408	5 920	7 868	4 568
Hong Kong, China	6 277	5 312	2 633	3 700	5 930	21 633
India	4 215	5 542	27 083	2 981	2 467	3 638
Singapore	3 672	2 644	18 184	2 303	4 414	3 417
South-East Europe and CIS	19 552	6 702	13 228	11 040	12 961	27 503
Russian Federation	19 031	4 526	12 479	1 960	6 239	22 949

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

over \$3 billion). Around 90% of cross-border M&As in developed countries were concluded by firms from other developed countries. But developing-country TNCs were also increasingly active in tapping developed-country markets for corporate assets. These TNCs were involved in 28 mega M&A deals that amounted to a total of around \$100 billion and accounted for 7% of the total cross-border M&A sales of developed-country firms. TNCs from India, Singapore, Mexico and the United Arab Emirates played a major role. Among economies in transition, the Russian Federation accounted for over \$12 billion of cross-border M&A sales of developed-country firms.

In contrast to cross-border M&As, the number of greenfield projects in developed countries fell slightly in 2007 to a total of 6,037 compared to 6,198 in 2006 (annex table A.I.1). The EU was the only subgroup of developed economies where greenfield projects decreased in 2007, while the United States remained the single country with the largest number of projects (800). Developing-country firms had

virtually the same share of greenfield projects as in 2006 (7%), and the number of projects by Chinese firms increased to 75 in 2007, compared to 50 in 2006.

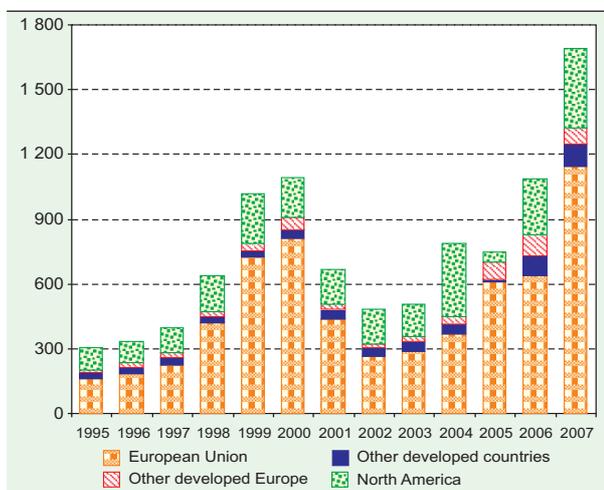
b. Outward FDI: strong net outward investments

FDI outflows from developed countries increased by 56% to \$1,692 billion (figure II.31). With FDI outflows exceeding inflows by \$445 billion, developed countries maintained their position as large net outward investors. The growth of outward FDI was broad-based and concerned 28 out of the 38 developed countries in 2007.

Five countries recorded FDI outflows of more than \$100 billion. The largest sources of FDI were the United States, the United Kingdom, France, Germany, Spain, Italy and Japan, in that order (figure II.32). Outward FDI from these seven countries together amounted to \$1,256 billion, or 74% of the total FDI outflows of the group. Strong reinvested earnings (31% larger than in 2006) and large intra-company loans (almost nine times higher than in 2006) also contributed to the increase in FDI outflows.

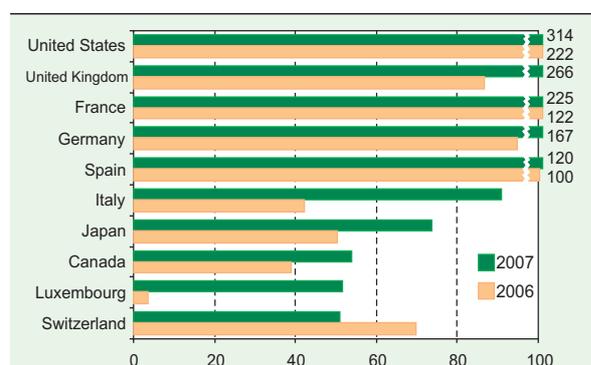
The *United States* maintained its position as the largest outward investor in 2007 with \$314 billion (a 42% increase over 2006). United States TNCs concentrated their investments in the EU (\$175 billion) but there was also a

Figure II.31. Developed countries: FDI outflows, 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

Figure II.32. Developed countries: top 10 sources of FDI outflows,^a 2006–2007
(Billions of dollars)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics) and annex table B.1.

^a Ranked by magnitude of 2007 FDI flows.

considerable increase in FDI outflows to Asia and the Pacific as well as Latin America and the Caribbean, and Canada. The increase in FDI outflows was driven mainly by investments in the services sector (56% more than in 2006), especially holding companies (Bach, 2008).

In 2007, outward FDI from the *EU countries* nearly doubled, to \$1,142 billion. The new dynamic of FDI outflows from the EU subregion – after stagnation in 2006 – reflects the financial strength of many European TNCs that undertook several very large foreign acquisitions. Six of the top 10 source countries for FDI in 2007 were EU countries. FDI outflows from the United Kingdom increased more than threefold compared to 2006, to \$266 billion. All components of FDI (equity capital, intra-company loans and reinvested earnings) contributed to the rise. Non-financial corporations from the United Kingdom recorded the highest levels of new investments abroad, while investment by financial and insurance service companies was lower than in 2006 (United Kingdom, National Statistics, 2008). Several large-scale M&As drove the outward FDI of the United Kingdom.¹³³ *France* was the third largest source of FDI with \$225 billion, followed by Germany and Spain. FDI outflows from Germany attained their highest level ever, and more 80% went to developed countries.

Compared to other developed countries, the FDI outflows of the 12 new EU members remained modest at \$14 billion in 2007. However, a few companies from this group of countries are becoming important players within the EU. For example CEZ, the largest electricity producer in the Czech

Republic, is among the 25 largest energy TNCs in Europe in terms of foreign assets.¹³⁴

FDI outflows from Japan continued to grow strongly (\$74 billion). Driven by a doubling of net equity capital outflows and continued strong reinvested earnings, they reached a new record level.

2. Sectoral trends: significant increase in manufacturing

Judging from information on cross-border M&As, inflow FDI in manufacturing and services rose while that in the primary sector lagged behind somewhat (table II.23).

In the *primary sector*, firms from developed countries, while reducing their cross-border M&A sales by 13%, increased their cross-border M&A purchases by 83%. The continuing boom in prices of primary commodities and the consolidation process in the mining and quarrying industries (*WIR07*) led to several large deals by developed country firms. Developed-country TNCs also invested heavily in the primary sectors of developing and transition economies.

In the *manufacturing sector*, cross-border M&A sales of developed countries rose by 93%, while cross-border purchases by developed-country TNCs rose by 35%. Nearly all industries in the sector benefited from increasing investments, with cross-

Table II. 23. Developed countries: cross-border M&As, by sector/industry, 2005–2007
(Millions of dollars)

Sector/industry	Sales			Purchases		
	2005	2006	2007	2005	2006	2007
Total	820 358 969 116 1	454 084	777 609 930 101 1	410 802		
Primary	150 945 97 769	85 404	107 896 62 696	114 767		
Mining, quarrying and petroleum	143 026 95 112	84 287	106 573 59 682	114 150		
Manufacturing	222 446 275 544	530 466	168 952 221 775	299 299		
Food, beverages and tobacco	36 203 28 351	59 894	26 881 20 780	43 089		
Wood and wood products	7 394 7 867	16 726	3 652 5 527	11 006		
Publishing and printing	15 338 25 028	25 020	8 991 10 138	12 953		
Chemicals and chemical products	60 643 55 634	127 943	32 949 38 568	101 182		
Non-metallic mineral products	12 784 9 214	41 903	18 629 10 229	5 910		
Metals and metal products	24 732 48 522	114 246	18 808 45 741	34 801		
Machinery and equipment	7 308 16 207	22 575	8 988 20 223	7 145		
Electrical and electronic equipment	17 257 39 274	25 251	14 286 36 540	37 608		
Motor vehicles and other transport equipment	11 265 16 449	29 637	10 249 9 238	12 927		
Precision instruments	16 164 11 341	39 487	8 970 12 879	19 827		
Services	446 966 595 802	838 215	500 724 645 521	996 020		
Electricity, gas and water	73 390 60 700	119 860	43 921 23 369	71 786		
Construction	8 316 11 612	10 059	7 113 7 041	5 622		
Hotels and restaurants	11 335 39 115	26 971	3 394 12 696	2 847		
Trade	33 307 28 904	70 411	14 587 15 403	22 681		
Transport, storage and communications	87 579 131 703	86 974	51 852 93 677	63 365		
Finance	82 226 131 152	303 544	309 537 430 634	734 010		
Business activities	114 262 141 630	163 271	53 496 45 837	72 813		
Community, social and personal services	24 757 28 435	38 670	10 201 10 433	13 143		

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

border M&A sales the highest in chemicals, metals and food, beverages and tobacco – in that order.

Services continued to be the sector with the largest FDI activity in developed countries, judging from cross-border M&A data. They accounted for 58% of cross-border M&A sales in 2007. Competitive pressure and further deregulation in the electricity, gas and water industries led to several large cross-border acquisitions in Europe. Cross-border M&A activity was also very intense in financial services due to ongoing deregulation and restructuring and the financing needs of several banks following the crisis in financial markets (chapter I). Several mega deals, such as the above-mentioned acquisition of ABN AMRO by a consortium of three banks, contributed to the strong increase in the value of cross-border M&A sales in developed countries, which amounted to \$838 billion in 2007. *New EU member* countries continue to be hot spots for FDI in international business services such as IT support, shared services and customer support services.¹³⁵

3. Policy developments

In the past few years, the policy environment for FDI in a number of developed countries has been influenced by public debates on possible negative effects of cross-border investments by SWFs as well as private equity and hedge funds (chapter I). Moreover, in several new EU member States, public sentiment against further privatization of State-owned companies has provoked policy debates. At the same time, the G-8 countries and the EU have reiterated their commitment to openness to investment and to the free movement of capital.¹³⁶ Those declarations were supported by several national policy changes in 2007. Of the 36 changes in their regulatory frameworks affecting FDI, 27 sought to facilitate greater FDI inflows, while 9 changes may directly or indirectly hinder cross-border investments.

Privatization and liberalization. Several developed countries continued to privatize and liberalize their economies in 2007. Poland and Latvia privatized their State-owned aerospace and telecommunications companies.¹³⁷ The Government of Portugal sold a further stake in Rede Eléctrica Nacional (REN), which operates the country's power grid. By contrast, other countries stopped further privatizations. For example, in Slovakia the Government halted all large-scale privatization plans and announced the re-nationalization of several "strategic" industries.¹³⁸ A similar policy was followed in Estonia, where Estonian Railways was re-nationalized in early 2007. In Lithuania and Poland, the Governments prevented the privatization of firms that were deemed to be of national strategic importance.

Tax policy and other incentives. The tax policy of several developed countries was made more favourable to foreign investment. In Denmark, the Netherlands, Hungary, Malta and Poland, various corporate tax rates were cut or tax incentives introduced. In Switzerland, Hungary and the United States¹³⁹, measures to reduce bureaucracy, shorten time limits for processing applications, and other initiatives were initiated to encourage foreign investment.

Laws and policies to regulate foreign investment. Several developed countries introduced new laws or amended existing laws with the aim of protecting sensitive industries for national security or strategic reasons. In particular, the energy sector and utility networks were subject to such measures in Germany, Hungary, Japan and the United States. In the United States, the Foreign Investment and National Security Act (FINSA) that became law in 2007 amends the so-called Exon-Florio Act. FINSA provides for an investigation if a cross-border acquisition endangers critical infrastructure, energy-supply safety or technologies that are important for national defence (United States, GAO, 2008: 31). The Japanese Foreign Exchange and Foreign Trade Act was strengthened to require a foreign investor to notify the Government in advance for a planned investment in sensitive or strategic industries. The Government applied this regulation to the investment by the Children's Investment Fund (United Kingdom) in J. Power, an electric power company, because of security concerns.¹⁴⁰

In Hungary, the Government strengthened rules on hostile takeovers in order to prevent ÖMV (Austria) from acquiring the Hungarian Oil Company MOL. After a debate in 2007, the Government of Germany announced modifications of the German Foreign Trade and Payments Act, which regulates FDI. According to the newly announced law, all foreign investments above a 25% threshold of voting rights are subject to this Act, regardless of the sector and the size of the firms (Germany, Bundesministerium für Wirtschaft und Technologie, 2008: 8). The concern of several EU member countries about the rising importance of SWFs has induced the European Commission to propose a common European approach (Commission of the European Communities, 2008). Its proposal is expected to contribute to the efforts of the IMF and the OECD to set up guidelines for these funds (Chapter I)

At the international level, developed countries concluded 25 new BITs involving 14 countries. The Netherlands concluded five new treaties, followed by Germany, Finland and Spain with three new treaties each. Developed countries concluded 51 new DTTs in 2007, of which 7 new ones were concluded by Belgium and 5 by the United States.

4. Prospects: FDI growth likely to decline in the short term

The short-term prospects for FDI flows to and from developed countries have deteriorated as a result of financial turbulence and weaker economic growth. Economic growth in developed countries – one of the key drivers of FDI flows in past years – has slowed markedly since the fourth quarter of 2007. Economic expansion of the United States economy in 2008 is expected to fall below 2%. A similar slowdown is projected for Western Europe and Japan (IMF, 2008b). Deteriorating profits of TNCs in the wake of the economic slowdown will make the cash financing of FDI more difficult. In addition, the strong tightening of credit standards and the rise in risk premiums, especially for buyouts by collective investment funds (e.g. private equity and hedge funds), are likely to subdue cross-border M&As. High and volatile commodity prices (especially oil prices), inflationary pressures in several developed countries and sharp exchange-rate fluctuations further contribute to uncertainty in long-term investment decisions. In the first half of 2008 cross-border M&As were considerably lower than their peak in the second half of 2007, though they were slightly higher than in the first half of 2007.

In the medium-term, FDI growth prospects are uncertain due to continued slow growth and difficult market conditions in developed countries. UNCTAD's *World Investment Prospects Survey* supports this view: 39% of TNCs surveyed anticipated an increase in FDI inflows into developed countries compared to more than 50% of the TNCs in last year's survey (*WIR07*: 73). TNCs continue to express greater optimism for FDI inflows to the new EU-12 members, while they are less certain about other EU countries and other developed countries (Japan, Australia and New Zealand) (figure II.33).

Different surveys provide different messages. According to an Ernst & Young survey (2008b), Western Europe and North America fall back to third and fifth place, respectively, as the most attractive global investment regions compared to first and third place in 2006. In contrast, according to 11th Annual Global CEO Survey (PricewaterhouseCoopers, 2008a), Western Europe remains the most popular destinations for cross-border M&As while, for the first time, the 12 new EU members are considered more attractive than North America.

Notes

¹ For a number of commodities, several African countries offer profitability prospects that exceed the profitability of other export products by as much as 20% or 30%. This is the case for commodities such as copper, diamonds, gold, oil and platinum, the prices of which rose by more than 200% between

2000 and 2008 (Bloomberg.com, Commodity futures, at: www.bloomberg.com/markets/commodities.cfutures.html).

² Data on international reserves are from the IMF, *International Financial Statistics*.

³ The data for 2007 are based on 39 African countries.

⁴ The subregion comprises Algeria, Egypt, the Libyan Arab Jamahiriya, Morocco, Sudan and Tunisia.

⁵ Source: "Libya industry: Oilinvest sells 65% stake in Tamoil to Colony Capital", *EIUViewswire*, 29 June 2007.

⁶ For example, the national shipping company, Comanav, was sold to France's CMA CGM for \$256 million. Source: "Morocco industry: France's CMA CGM buys shipping company Comanav", *EIUViewswire*, 16 May 2007.

⁷ Countries in the subregion are: Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone and Togo.

⁸ In Nigeria, a consortium of Royal Netherlands Shell (Netherlands), Chevron (United States) and the BG Group (United Kingdom) started construction at the OK-LNG plant in Olokola Free Trade Zone. CNOOC Ltd (China) also made payments for a 45% stake in an offshore oil field in Nigeria for \$2.27 billion.

⁹ In Burkina Faso, FDI inflows reached \$0.6 billion in 2007. Etruscan Resources (Canada) began drilling on the country's Youga Gold deposit, a project estimated at \$44 million, and AIM Resources (Australia) also began its Perkoa zinc project, worth about \$215 million, along with other smaller companies. Maroc Télécom (Morocco) paid the Government of Burkina Faso \$290 million to buy a 51% stake in Onatel ("Burkina Faso industry: Telecoms utility is privatised", *EIUViewswire*, 16 March 2007).

¹⁰ FDI inflows mainly in petroleum exploitation and refining have skyrocketed, reaching \$427 million in 2007, up from \$319 million in 2006 ("Côte d'Ivoire industry: US\$1.4bn crude oil facility to be built in Abidjan", *EIU Viewswire*, 31 October 2007).

¹¹ In Mali, Sonatrach International Petroleum & Production (Sipex) (Algeria) launched a \$11-million oil exploration project in collaboration with that country's Government.

¹² Economies in the subregion are: Comoros, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Mauritius, Mayotte, Reunion, Seychelles, Somalia, Uganda and the United Republic of Tanzania.

¹³ "Madagascar industry: Korean banks put up US\$650m for Ambatovy nickel project", *EIUViewswire*, 5 March 2008.

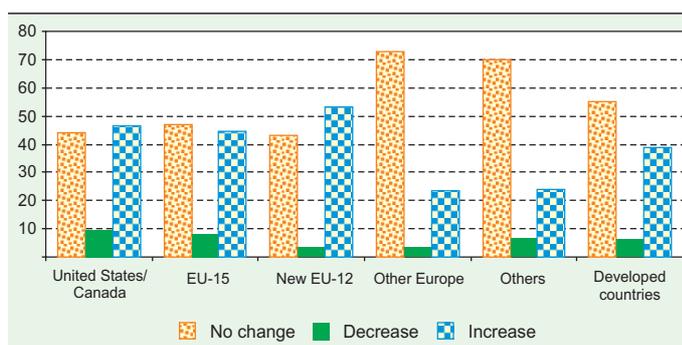
¹⁴ Countries in the subregion are: Burundi, Cameroon, the Central African Republic, Chad, Congo, the Democratic Republic of the Congo, Equatorial Guinea, Gabon, Rwanda and Sao Tome and Principe.

¹⁵ Countries in the subregion are: Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe.

¹⁶ "Chinese megabank buys R37bn Standard stake", *BusinessDay*, 18 June 2007 (<http://www.businessday.co.za/articles/dailymailer.aspx?ID=BD4A597073>).

¹⁷ For example, China's Luanshya Copper Mines (LCM) planned to invest \$354 million in the development of the Mulyashi copper mine in Zambia. "Zambia industry: LCM boosts Mulyashi mine investment to US\$354m", *EIUViewswire*, 5 March 2008.

Figure II.33. FDI prospects in developed countries, 2008–2010 (Per cent of respondents to the UNCTAD survey)



Source: UNCTAD, 2008b.

- ¹⁸ At around \$100 a month, typical salaries in Lesotho are at least five times higher than those in Bangladesh, and two to three times higher than those in China (“Africa industry: Looming difficulties for textiles”, *EIUViewswire*, 20 July 2007).
- ¹⁹ The auto trade pact, for instance, stipulates that motor components manufactured in South Africa are once again allowed tariff-free entry into the EU (reversing a decision made in 2006). To qualify for the exemption, the vehicles and components must have no less than 60% of local content (including labour costs and company margins). South Africa, in turn, will lower or scrap duties on certain EU vehicle-related products. The pact improves access to the EU market and could encourage automobile manufacturers to invest in South Africa for use as an export base to Europe, given the fact that a number of automobile producers such as Daimler-Chrysler (Germany/United States), SAAB (United States/Sweden), Toyota (Japan) and others are already producing in the country (“South Africa/EU industry: Auto pact”, *EIUViewswire*, 16 March 2007).
- ²⁰ In South Africa, for example, FDI in the textile industry suffered from increasing input costs, due to higher oil prices, as well as a weaker rand. “Embattled textile sector seeks state survival aid”, *Business Day*, 23 February 2008 (www.businessday.co.za/articles/dailymailer.aspx?ID=BD4A714292).
- ²¹ Several projects and activities are under way, including preparation of Invest in COMESA: A Practical Guide; creation of a COMESA Business Intelligence System (a computerized information system); Compilation of a compendium of investment opportunities; organizing a one-stop-shop best practices workshop; and Invest in COMESA: Practical Guide Conference.
- ²² The Government of China adopted its Investment Policy on Africa in 2006, which aims to encourage and support Chinese investment in the continent through various measures. The policy identifies four major areas of involvement. First, it provides for preferential loans and buyer credits to its investors. Recently it has granted its firms preferential loans and buyers’ credits amounting to \$5 billion for their transactions in Africa. Also, it has established a China-Africa Development Fund to support the activities of Chinese firms in Africa. Second, the policy encourages exploring new ways for promoting investment cooperation with African countries, formulating and improving relevant policies for this purpose, and providing guidance and services to its investors. Third it encourages the signing of investment agreements with African countries. Fourth, it offers protection of investors’ legitimate rights and interests. China’s policy emphasis appears to be on infrastructure development, including transportation, communications, water conservation, electricity and other infrastructure (China, Ministry of Foreign Affairs, 2006).
- ²³ The Agreements set up respective Joint Councils on Trade and Investment, which were responsible for (i) monitoring investment relations between the two parties, (ii) identifying opportunities for expanding investment, (iii) identifying issues relevant to investment that may be appropriate for negotiation in an appropriate forum, (iv) holding consultations on specific investment matters of interest to the Parties and (v) identifying and working toward the removal of impediments to investment (Office of the United States Trade Representative: www.ustr.gov/Trade_Agreements/Section_Index.html).
- ²⁴ SACU comprises: Botswana, Lesotho, Namibia, Swaziland and South Africa.
- ²⁵ It consists of Iceland, Liechtenstein, Norway and Switzerland.
- ²⁶ “Congo (Dem Rep)/China industry: China to invest \$5bn in DRC”, *EIUViewswire*, 27 September 2007.
- ²⁷ A consortium of Energy Allied International, WCW International and Ivorian State-owned oil company Petroci is to build, own and operate a crude oil refining and storage facility in Abidjan for \$1.4 billion.
- ²⁸ The economy of the region (including Central Asia) is estimated to have grown by 8.7%, but some subregions grew at a much faster rate in 2007 (Asian Development Bank, 2008). For instance, China is estimated to have grown by 11.4% in 2007, India by 8.7% and the ASEAN region as a whole by 6.5%.
- ²⁹ Data are based on ultimate parent transactions.
- ³⁰ Source: UNCTAD, based on data obtained from Shanghai Foreign Investment Commission and Invest Beijing.
- ³¹ Significant FDI by TNCs such as by Philip Morris and Standard Chartered also contributed to higher inflows. In addition, there were a number of acquisitions: Singapore Telecommunications acquired a 30% stake in Warid Telecom for \$758 million, Orascom Telecom acquired an 11% stake in Pakistan Mobile Communications for \$290 million, and China Mobile Communications acquired an 89% interest in Paktel for \$284 million.
- ³² “Pakistan expects record \$6.5 billion FDI this year”, *Business in Asia Today*, 9 May 2007 (www.antara.co.id/en/arc/2007/5/9/pakistan-expects-record-us65-bl-fdi-this-year/).
- ³³ www.dialog.lk/en/corporate/press/releases/pressRelease.jsp?id=182.
- ³⁴ See “MIGA supports critical telecommunications investment in Afghanistan”, 3 July 2007 (www.miga.org/index.cfm?aid=709). MTN (South Africa) also invested in Afghanistan. “Afghanistan seeks Malaysian investments in soft drinks sector”, *Bernama*, 6 June 2007 (http://www.bernama.com.my/bernama/v3/news_business.php?id=265976). In mining, a large investment contract for an estimated \$3 billion copper mining project won by China Metallurgical Group in November 2007 was particularly important (“China wins major Afghan project”, *BBC News*, 20 November 2007 (news.bbc.co.uk/2/hi/south_asia/7104103.stm)).
- ³⁵ In 2007, reinvested earnings accounted for 41% of total FDI inflows in Indonesia, 56% in Malaysia, 19% in the Philippines, 53% in Singapore and 43% in Thailand.
- ³⁶ Think London, an investment promotion agency, is making efforts to attract more Indian, Chinese and other Asian investments to London to help retain the capital’s competitiveness as a leading global business centre (“Indian investment flows to London”, *Financial Times*, 27 April 2007). In 2007, the Chicago-China Development Corporation was established in Shanghai to attract Chinese investment and assist Chicago companies in China (“Mayor Daley to chair Chicago office in Shanghai”, *World Business Chicago*, volume 28, February 2007).
- ³⁷ *Fortune*, 21 July 2008. In 2006, there were 44 such firms.
- ³⁸ “India plans sovereign wealth fund for energy assets abroad”, *The Economic Times*, 20 February 2008.
- ³⁹ According to Dealogic. For example, Doosan Infracore (Republic of Korea) acquired Bobcat (United States) for \$4.9 billion in one of the largest deals undertaken by a Korean firm.
- ⁴⁰ For example, Minmetals continues to acquire in mineral resources overseas and has already established 44 foreign affiliates. Having acquired Peru Copper for \$793 million in 2007, Chinalco is expected to invest \$2.8 billion in a bauxite mine in Queensland, Australia. (“Chinalco to start constructing Australian project next year”, *China Mining*, at: www.chinamining.org, 13 June 2008).
- ⁴¹ In 2007, Viet Nam approved 64 outward FDI projects with a registered investment of \$391 million, a 92% increase over the value approved in 2006; the projects included a rubber plantation in the Lao People’s Democratic Republic by Dau Tieng Viet-Lao Rubber Joint-Stock Corporation, and oil and gas exploration by Vietnamese firms in Madagascar (“Outward investment of Viet Nam’s enterprises”; Foreign Investment Agency, Ministry of Planning and Investment, Viet Nam, at: <http://fia.mpi.gov.vn/Default.aspx?ctl=Article&TabID=0&aID=530>). In 2008, Kova Paint Group of Viet Nam opened its first manufacturing plant in Cambodia.
- ⁴² For instance, Carlyle Group (United States) acquired a 25% stake in Ta Chong Bank (Taiwan Province of China) in 2007.
- ⁴³ Calculations are based on data provided by MOFCOM, China.
- ⁴⁴ In Guangdong, for instance, more than 1,000 small footwear manufacturers (about 10% of the total) and related suppliers were closed in 2007. The main manufacturing hubs such as the Pearl River Delta in China have also been affected, and it is estimated that about 10% of the 60,000 to 70,000 factories owned by investors from Hong Kong (China) may be closed in 2008. (Mei Fong and Sky Canaves, “Many factories in China’s South sound last whistle”, *Wall Street Journal*, 25 February 2008).
- ⁴⁵ “India lifts FDI caps in key sectors”, *The Financial Express*, 30 January 2008 (www.financialexpress.com/news/India-lifts-FDI-caps-in-key-sectors/267054/) and “India eases rules to attract more overseas investment”, *Bloomberg*, accessed 22 April 2008 (www.bloomberg.com/apps/news?pid=20601091&sid=aAmSp60DunNE&refer=india).
- ⁴⁶ Viet Nam also announced a list of 163 national projects seeking foreign investment for the period 2006–2010, of which 70 were in infrastructure industries. “Call for foreign investment focuses on infrastructure”, *Met Vuong*, 30 October 2007 (http://en.metvuong.com/thongtin/148_Call-for-foreign-investment-focuses-on-infrastructure.html); and “Viet Nam calls for over

- US\$61 billion capital in five years”, *VietnamNet Bridge*, 19 October 2007 (<http://english.vietnamnet.vn/reports/2007/10/750250/>).
- 47 “Infrastructure development in Viet Nam – a new BOT decree”, *Freshfields Bruckhaus Deringer*, July 2007 (<http://www.mekongresearch.com/doc/>).
- 48 Indonesia’s new investment law of 29 March 2007 provided for greater equality of treatment between foreign and local firms, and investment disputes, if any, between the State and investor can now be arbitrated using international laws. (“Indonesia regulations: investment law - key points”, *EIU Viewswire*, 29 March 2007).
- 49 Information paper “Korea’s investment review system in relation to national security” submitted to the OECD Investment Committee by the Ministry of Knowledge and Economy, Republic of Korea, 26 March 2008.
- 50 The Government of Thailand has undertaken a number of measures to increase the country’s competitiveness for investment in 2007. These were introduced in conjunction with the launch of “Thailand Investment Year: 2008–2009”, notably to promote investment in automotive and electronics industries and alternative and renewable energy (“BOI debuts incentives for biotech industry: maximum incentives offered to grow the industry”, BOI Thailand, *Press Release*, 6 February 2007; “BOI increases incentives to shipbuilding and shipyard operators: more expansion expected in Zone 2 and Zone 3”, BOI Thailand, *Press Release*, 9 February 2007; “BOI new policy to stage Thailand a leading production base for export of passenger cars and big-bike motorcycles”, BOI Thailand, *Press Release*, 1 October 2007).
- 51 The Catalogue was jointly promulgated by the National Development and Reform Commission and the Ministry of Commerce, which became effective since 1 December 2007. Electricity transmission is opened to equity participation by foreign investors but Chinese investors should have majority ownership (www.ndrc.gov.cn/zcfb/zcfbl/2007lingt20071107_171058.htm).
- 52 Foreign investments in real estate in China were tightened and investment in residential housing was removed from the encouraged list (*Source*: “China: Policy and Business Outlook”, *EIU*, Country Forecast - Main Report, 4 April 2007 (www.eiu.com)).
- 53 For instance, public broadcasting service of radio and television, and provider and operator of terminal in transportation are added to the list of business activities closed to foreign investment (*Sources*: “Indonesia blacklists FDI”, *Asia Times*, 10 July 2007; “Presidential Regulation of the Republic of Indonesia, Number 77 of 2007, Concerning List of Lines of Business Closed and Open with Conditions to Investment” (www.bkpm.go.id/node/1875); “Negative investment list criticism is “premature”, *Jakarta Post*, 2 July 2007 (<http://old.thejakartapost.com/yesterdaydetail.asp?fileid=20070702.A05>)).
- 54 See “Myanmar and Viet Nam sign pact on petroleum cooperation”, *The Earth Times*, 15 August 2007 (www.earthtimes.org/articles/show/93757.html).
- 55 An overseas investment promotion policy was approved to encourage overseas investment as part of Thai national policy (“BOI boosts Thai overseas investment, aims to strengthen competitiveness of Thai industries”, BOI Thailand, *Press Release*, 10 April 2007). The Reserve Bank of India has increased the overseas investment limit on Indian companies from 300% of the net worth to 400% for wholly-owned Indian subsidiaries abroad (“Overseas direct investment – liberalisation”, Reserve Bank of India, *A.P. (DIR Series) Circular No. 11*, 26 September 2007). In 2007, the Government of the Republic of Korea announced measures to encourage outward FDI, including measures to streamline and simplify outward FDI procedures as well as providing investment insurance (“Plans to encourage outward FDI”, Ministry of Finance and Economy, *Press Release*, 16 January 2007, and “Strategy for SOE’s investment abroad”, *Decision by Outward Foreign Investment Committee*, 27 December 2007).
- 56 “China approves China-Africa Development Fund”, *People’s Daily Online*, 14 May 2007 (http://english.people.com.cn/200705/14/eng20070514_374190.html).
- 57 In China, FDI inflows to the non-financial sector increased by 46% to \$52 billion in the first half of 2008, although part of such flows are considered to be “hot money” (i.e. speculative capital driven by the expectation of further appreciation of the yuan) (Song, 2008).
- 58 Examples include Chinalco’s (China) acquisition of a 12% stake in Rio Tinto (United Kingdom/Australia) for \$14 billion in cooperation with Alcoa (United States); Petronas (Malaysia) announced plans to buy a 40% interest in Santos Ltd. (Australia) for \$2.5 billion; China Huaneng Group acquired Tuas Power (Singapore) for \$3.1 billion; and Tata Motors (India) entered into an agreement in March 2008 with Ford to purchase Jaguar Land Rover for about \$2.3 billion. Acquisitions by Indian firms in the telecommunications sector are also rising in 2008 (PricewaterhouseCoopers, 2008b).
- 59 West Asia comprises Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, the Palestinian territories, Qatar, Saudi Arabia, the Syrian Arab Republic, Turkey, the United Arab Emirates and Yemen. From this *WIR* onwards, the Islamic Republic of Iran is excluded from this subregion, as it is now classified under South Asia in the United Nations general geographical classification of countries.
- 60 The sharp increase in FDI inflows in the recent period was due mainly to foreign acquisitions of large Turkish companies, particularly in banking and telecommunications, through privatization and private sector M&A deals. Privatizations accounted for around 40% of the total cross-border M&A volume in 2005–2007 (Deloitte Turkey, 2008; Ernst & Young, 2008a). In 2007 alone, there were 162 M&A deals totalling \$21 billion, of which 77% was attributable to foreign investors.
- 61 M&A deals in Turkey by firms from the Netherlands amounted to \$11.1 billion in 2005–2007, which represents nearly one quarter of total FDI inflows to Turkey. The biggest investment by Netherlands investors was in financial services: ING Group NV acquired Oyak Bank for \$2.7 billion (Raymond James, 2008).
- 62 Information from the OCO monitor web site (www.ocomonitor.com).
- 63 For example, Bahrain-based Arcapita Bank, a leading Islamic private equity investment firm, acquired a Texas power plant for \$695 million (*CEEMarketWatch*, 29 January 2008), and also PODS (Portable On Demand Storage) for \$452 million in the United States (*CEEMarketWatch*, 26 February 2008). Saudi Basic Industries Corporation agreed to buy the plastics unit of General Electric for \$11.6 billion (“As oil hits high, Mideast buyers go on a spree”, *Wall Street Journal*, 21 September 2007).
- 64 Turkish official statistics indicate that Turkey’s outward FDI stock is over \$12 billion, but this is an underestimate as official statistics do not fully cover reinvested earnings.
- 65 The company will have a 40% stake in the project (Zawya.com, “ADNOC sour gas fields development: Shah Field” (www.zawya.com/projects/project.cfm?pid=0201070610329), accessed in April 2008).
- 66 For example, Hikma, Jordan’s largest private pharmaceutical manufacturer took over the German company Ribosepharm for \$45 million and Egypt’s Alcan Pharma for \$61 million to expand its operations mainly in North Africa and the Asia-Pacific region (*CEEMarketWatch*, 8 October 2008).
- 67 Excluding \$905 million in property leasing services.
- 68 For example, AsiaCell, a consortium comprising Qatar Telecom (40% share), Kuwait’s MTC and Iraq’s Korek took three 15-year mobile operating licences in Iraq for \$3.75 billion in August 2007 (*CEE MarketWatch*, 17 August 2007). Another example is a joint venture between Qatar Telecom (Qtel) and AA Turki Corporation for Trading and Contracting of Saudi Arabia (ATCO), which acquired a 75% equity in Burraq Telecom of Pakistan. This acquisition is an example of Qtel’s strategy for regional and Asian expansion. Qtel recently acquired a 25% stake in Hong Kong, China’s Asia Telecom for \$635 million and a 51% stake in Kuwait’s Wataniya for \$3.7 billion and it made a bid for 67% of India’s Hutchison Essar (*CEEMarketWatch*, 22 May 2007).
- 69 “Saudis plan to grow crops overseas”, *Financial Times*, 13 June 2008.
- 70 The establishment of the Syrian Investment Agency is part of broader economic reforms, as laid down in the 10th five-year plan (2006–2010), and the Government’s recent steps towards building a regulatory framework to govern the new market economy. Areas that receive special attention are banking, insurance and capital markets, and housing and real estate (*EIU Country Report*, April 2007, at: <http://www.eiu.com>).
- 71 “Company law in six month”, *UAE Interact*, 31 March 2008.
- 72 In the period 1995–2000, such acquisitions accounted for 45% of total FDI inflows. This share fell to 21% in 2001–2006, and was 25% in 2007 (UNCTAD, cross-border M&As database). Although these ratios must be interpreted with caution because data on FDI and M&As are not directly comparable (see *WIR00*),

- they are a good indication of the relative importance of M&As as a mode of FDI.
- 73 Based on data from national authorities.
- 74 Growing demand within Latin America and the Caribbean, trade agreements with the Southern Common Market (MERCOSUR), Japan and the EU, and the appreciation of the euro, are among the most important factors that helped Mexico diversify its exports.
- 75 These are Grupo Cuscatlan acquired by Citigroup (United States) and Banagricola acquired by Bancolombia (Colombia).
- 76 Including financial centres, FDI outflows fell by 17% to \$52 billion.
- 77 Examples include the \$14.2 billion acquisition in 2007 by Cemex (Mexico) of Rinker (Australia) (annex table A.I.3), a transaction which would not have been reflected in Mexican outward FDI data because it was financed through Cemex's foreign affiliates, and the \$2.2 billion acquisition by the steel company Tenaris (Argentina) of Hydril Co LP (United States) which would not figure as Argentinean outward FDI because the company is headquartered in Italy.
- 78 In Brazil, it bought Grupo Amanco (Chile) for \$500 million, and in Colombia it bought Petroquímica Colombiana for \$250 million.
- 79 "Africa is a New Frontier for Biofuels... Good or Bad?", *Africa Journal*, 28 July 2007, Washington DC (<http://craigeisele.wordpress.com/2007/09/02/africa-is-a-new-frontier-for-biofuels-good-or-bad/>).
- 80 The Dutch disease is explained in *WIR07*: 95.
- 81 Petrobras, *Press release*, 17 December 2007.
- 82 Chile is the only country in the region that maintains a State-owned company that is competing with several foreign companies (*WIR07*).
- 83 Banco Central do Brasil (www.bcb.gov.br), Banco Central de la República de Colombia (www.banrep.gov.co), Ministerio de Economía de México (www.economia.gob.mx) and Banco Central de la República del Perú (2008).
- 84 Banco Central do Brasil (www.bcb.gov.br).
- 85 In Brazil, minority shareholders of Arcelor Brazil, an affiliate of Arcelor Mittal, received about \$5 billion from the sale of their shares to the parent company, and in Mexico, three Mexican steelmakers – Grupo Imsa, Sicartsa and Grupo Industrial Feld – were acquired for a total of \$3.4 billion by Ternium (Italy/Argentina), Arcelor Mittal (Luxembourg) and Gerdau (Brazil) respectively (UNCTAD, cross-border M&As database).
- 86 Acquisitions of Brazilian sugar refineries by companies from Spain, France and Japan amounted to \$1.2 billion (UNCTAD, cross-border M&As database).
- 87 Petrobras (Brazil) is investing in biofuels in these two countries (ECLAC, 2008), while Grupo Votorantim (Brazil) paid \$489 for the acquisition of a Colombian steel company (Acerias Paz del Rio) and Gerdau (Brazil) acquired a Dominican steel company for \$42 million (UNCTAD, cross-border M&As database).
- 88 Tata (India) signed a joint production agreement with Fiat to reactivate Fiat's plant in Córdoba (Argentina), and the Chinese firms, Chery and ZX, are investing in Uruguay and Mexico, respectively, for exports to MERCOSUR (in the case of Chery) and to the United States and other markets (in the case of ZX).
- 89 General Motors, for example, announced a \$500 million investment in Mexico to produce hybrid (petrol/electric) vehicles that will be destined for the United States.
- 90 Examples include Lacoste, Benetton, Adidas, Reebok, Under Armour, Land's End and LL Bean.
- 91 *The Inquirer Net*, "Telefonica's dream of hegemony faces hurdles", 17 October 2007 (www.theinquirer.net/gb/inquirer/news/2007/10/17/telefonica-dreams-hegemony).
- 92 These three companies are: 1) Vivo, a joint venture between Telefónica (Spain) and Portugal Telecom, that has a 33% market share; 2) Claro, owned by Mexico's América Móvil, which has a 25% market share; and 3) TIM Brasil, previously owned by Telecom Italia, which has a 25% market share.
- 93 This deal will enable Oi Participações to gain control over some 70% of Brazil's fixed-line market, around 40% of its broadband Internet services and 18.5% of its mobile telephony market. Its closure depends on a change in telecommunications law that prohibits one company from holding two separate telecom concessions.
- 94 UNCTAD, cross-border M&As database.
- 95 In El Salvador, these were the \$1.5 billion acquisition by Citigroup (United States) of Grupo Cuscatlan (a Salvadorian Bank headquartered in Panamá) and the \$791 million purchase by Bancolombia (Colombia) of an 89.15% stake in Banagricola (El Salvador). In Chile, Scotiabank (Canada) bought a 78.9% stake in Banco del Desarrollo (Chile) for \$829 million.
- 96 This was part of the larger acquisition of ABN AMRO (the Netherlands) by a consortium comprising Santander, Royal Bank of Scotland (United Kingdom) and Fortis (the Netherlands/Belgium).
- 97 These companies are Lácteos Los Andes, a dairy producer responsible for around 30% of national milk production, and Centro de Almacenes Congelados (Cealco), the country's largest cold storage and distribution company. These companies are to be incorporated into Productora y Distribuidora de Alimentos (PDVAL), a food distributor and affiliate of State oil company Petróleos de Venezuela (PDVSA).
- 98 There were no legal battles over nationalized telephone and electricity companies because compensation was satisfactorily agreed upon.
- 99 The new tax will work as follows: whenever the average monthly price of Brent North Sea crude exceeds \$70 a barrel, 50% of the additional revenue will go to the State, and the other 50% to the company extracting and selling the oil. But when the reference price climbs above \$100 a barrel, the State's share of the windfall profits will go up to 60%. The tax will not be applied if the price is lower than \$70 (www.tradingmarkets.com/site/news/Stock%20News/1360980/).
- 100 These 50% shares will be added to the 47% already owned by the State (www.entel.bo).
- 101 The Government increased its existing shares to gain majority control in two foreign energy companies: Andina (affiliate of the Spanish Repsol) and Chaco (affiliate of BP). It also took full control of the following two pipeline companies: Transredes (50% of which was owned by Ashmore (United Kingdom) and Shell (United Kingdom/Netherlands)); and Compañía Logística de Hidrocarburos Boliviana (Germany/Peru), a company involved in hydrocarbon storage and other logistical installations (*Business Latin America*, 12 May 2008 and 9 June 2008, London: EIU).
- 102 www.mineweb.com/mineweb/view/mineweb/en/page67?oid=44175&sn=Detail.
- 103 The move follows the publication of an audit report in December 2007 alleging irregularities in oil purchases from Shell-affiliated companies that have acted to push up fuel prices (*Business Latin America*, 28 January 2008, London: EIU).
- 104 The amendment leaves the decision on tourism concessions with Cusco's regional government. The Cusco Region is home to the city of Cusco (which was the capital of the Inca Empire) and to the country's most famous tourist site, Machu Picchu, which attracts around 800,000 visitors each year (*Business Latin America*, 10 March 2008, London: EIU).
- 105 These include distribution and logistics, business process outsourcing centres, contact centres, software development, R&D, and the repair and maintenance of cruise ships, cargo vessels and aircraft carriers. The exemptions apply to income tax, import taxes on capital goods, some municipal taxes and value added tax (VAT) on purchases of inputs and services required to carry out operations (ECLAC, 2008).
- 106 See *Business Latin America*, 8 April 2008, London: EIU.
- 107 These are Cuba, the Dominican Republic, El Salvador, Guatemala, Honduras, Nicaragua, Paraguay, Romania and Uruguay.
- 108 These are Argentina, the Bolivarian Republic of Venezuela, Canada, China, the United States and eight European countries (Finland, France, Germany, Italy, the Netherlands, Spain, Switzerland and the United Kingdom).
- 109 Based on a communication from the Permanent Mission of Ecuador in Geneva.
- 110 Article 71 of the ICSID Convention states that denunciation shall take effect six months after the receipt by the World Bank of a notice to withdraw. Such notice was delivered on 2 May 2007.
- 111 For instance, Brazil's JBS, the world's biggest beef producer, plans to acquire two beef businesses in the United States, which will make it the largest beef producer in that country, and one in Australia, for a total of \$1.3 billion.
- 112 Petrobras plans to increase oil and gas production abroad by 1.8 times by 2012, which will involve investments of \$15 billion

- during the period 2008–2012 (Agência Petrobras de Notícias, “Petrobras announces its international strategies”, 19 October 2007, at: www.agenciapetrobrasdenoticias.com.br/en_materia.asp?id_editoria=8&id_noticia=3597).
- ¹¹³ In the telecommunications industry, Mexico’s mobile telephony provider, América Móvil, has announced a \$4 billion investment plan for network expansion in 2008 to meet growing demand for data, video and calling services and to deploy third-generation (3G) mobile networks.
- ¹¹⁴ Beginning with this report, Bulgaria and Romania are reclassified as part of the EU and the developed-country group.
- ¹¹⁵ As the inward FDI potential index for 2007 is not yet available at the time of writing this report, the data for 2006 are used.
- ¹¹⁶ For example, in 2007, the largest announced project in the region was that of the Abu Dhabi-based Allied Business Consultants in the city of Sochi (Russian Federation), related to the Winter Olympic Games in 2014, amounting to \$6.2 billion.
- ¹¹⁷ In 2007, Gazprom purchased half of the pipeline operator Beltransgas (Belarus) for \$2.5 billion to be paid in four tranches till 2010 (though the deal is not recorded in cross-border M&A data as the transaction was not completed in that year), while in early 2008 Gazprom purchased a 51% stake in Serbia’s State-owned oil and gas monopoly, NIS.
- ¹¹⁸ “Toshiba agrees metals deal with Kazatomprom”, *Financial Times*, 23 June 2008.
- ¹¹⁹ In 2007, apart from a preliminary agreement for the acquisition of a 25% stake in the leading local carmaker AvtoVAZ for \$900 million by Renault (France), the German firm Volkswagen started to build an assembly plant in Kaluga and Japan’s Toyota started to build a plant near St. Petersburg. An important automotive project was also launched in Uzbekistan, where General Motors (United States) signed a joint-venture agreement with the State-owned holding, UzAvtosanoat, to assemble Chevrolet models.
- ¹²⁰ For example, Pepsi (United States) acquired 100% of Ukraine’s biggest juice producer Sandora, and in early 2008 it reached an agreement to purchase a 75% stake of Lebedyansky, the Russian Federation’s largest juice producer, for \$1.4 billion – so far the largest foreign acquisition by this company. “PepsiCo pays \$1.4B for majority stake in Russian juice maker to expand business overseas”, *International Herald Tribune*, 20 March, 2008.
- ¹²¹ For instance, UniCredit (Italy) acquired Ukrspotsbank in Ukraine for \$2.1 billion; Société Generale Group (France) bought 20% of Rosbank, one of the largest Russian banks for \$1.7 billion; and KBC bank (Belgium) acquired Absolut Bank (Russian Federation) for \$1 billion.
- ¹²² Vimpelcom acquired 90% of the Armenian fixed-line and mobile operator Armentel for over \$400 million, and also invested \$260 million in the acquisition of the second and fourth largest mobile operators in Uzbekistan, Unitel and Buztel.
- ¹²³ For example, large FDI inflows to Bosnia Herzegovina were the result of several large privatizations of government shares in SOEs (Central Bank of Bosnia Herzegovina).
- ¹²⁴ For instance, in Ukraine the banking sector remains fragmented with over 170 banks, and none of them holds more than 11% of the sector’s assets (*Business Monitor International*, 2007).
- ¹²⁵ Beginning with this year’s *WIR* Bulgaria and Romania are included in the group of developed countries as a result of their accession to the EU in January 2007.
- ¹²⁶ Royal Dutch (Netherlands) acquired Shell Canada for \$7.6 billion, ConocoPhillips (United States) bought EnCana Corp for \$7.5 billion and Marathon Oil Corp (United States) acquired Western Oil Sands Inc for \$6.2 billion.
- ¹²⁷ Only three of the largest 50 cross-border M&As in 2007 targeted firms in France. The German Allianz AG acquired AGF (life insurance) for \$11.1 billion, Group Danone was bought for \$7.2 billion by Kraft Foods (United States) and the British TDF SPL bought the French TDF SA for \$6.4 billion.
- ¹²⁸ The German economy continues to demonstrate strong export performance and increasing international competitiveness (i.e. very low inflation, moderate wage increases, high productivity and declining unit labour costs) (Moody’s Investor Services, 2007).
- ¹²⁹ For example, Iberdrola (Spain) acquired Scottish Power for \$22.2 billion and two other foreign investor groups bought Alliance Boots for \$19.6 billion and Hanson OLC for \$15.6 billion (annex table A.I.3).
- ¹³⁰ For example, AIG Global Investment (United States) acquired Bulgarian Telecommunications for \$1.5 billion.
- ¹³¹ The deal will be recorded as an inflow to the Netherlands since the company is registered in that country.
- ¹³² For example Merck (Germany) acquired the pharmaceutical company Serono for \$9 billion, Société Commerciale de Réassurance (France) bought the insurance company Converium Holding AG for \$2.4 billion, and investors from New Zealand purchased Schweizerische Industrie Gesellschaft Holding AG for \$2.3 billion.
- ¹³³ In addition to the above-mentioned acquisition of Alcan by Rio Tinto, AstraZeneca acquired Medimmune (United States) for \$15 billion (annex table A.I.3).
- ¹³⁴ In December 2007, CEZ and MOL (Hungary) created a strategic alliance focusing on gas-fired power generation, and signed a joint-venture agreement which would enable CEZ to become a significant player in the Hungarian and Slovak markets.
- ¹³⁵ In August 2007, HSBC bank announced its intention to establish a customer support centre in Brno (Czech Republic) while in mid-2007 Texas Instruments opened a new customer support centre in Prague.
- ¹³⁶ See G8-Summit, 2007, and Commission of the European Communities, 2008.
- ¹³⁷ The Government of Latvia sold major stakes in the fixed-line telephone monopoly, Lattelecom and the leading mobile operator Latvijas Mobilais Telefons (LMT), to foreign investors. Poland sold a former State-owned airline manufacturer, PZL Mielec, to Sikorsky Aircraft (United States).
- ¹³⁸ EIU, Country Forecast, Main report: Policy and business outlook – Policy towards foreign investment, 13 April 2007 (www.eiu.com).
- ¹³⁹ In the United States, the Invest in America initiative to attract foreign investment was the first initiative of this kind since the 1980s (*WIR07*: 78).
- ¹⁴⁰ The private equity fund submitted a plan to increase its existing 9.9% equity share to 20%. The Japanese Government requested the firm to revise or review the investment plan partly because this investment involves acquisition of a nuclear facility planned to be built by the Japanese company.

PART TWO

TRANSNATIONAL CORPORATIONS AND THE INFRASTRUCTURE CHALLENGE



INTRODUCTION

Infrastructure – especially electricity, telecommunications, transport and water – is important for all economies. They provide goods and services that are crucial for the efficiency, competitiveness and growth of production activity. Furthermore, access to affordable electricity and drinking water is an important determinant of the living standards of a country's population. The fundamental role of infrastructure has been brought into sharp relief in recent years, as a steadily growing number of countries across the entire developing world have been drawn into a cycle of growth and a greater participation in the global economy, but by doing so are finding further growth constrained by the quantity and quality of their infrastructure.

Many low-income countries face huge infrastructure investment needs but lack the necessary capacity domestically to meet them. Mobilizing financial and other resources to respond to these needs, especially in the least developed countries (LDCs), are among the main challenges which beset governments and the international community. The formidable gap between these needs and the availability of necessary resources has been one of the drivers behind the fundamental change in the role of the State in the provision of infrastructure around the world.

Governments in both developed and developing countries have opened up infrastructure industries to much greater involvement by the private sector – including TNCs. This new relationship between the State and the private sector has in some cases been facilitated and shaped by technological changes. These changes have opened up options for the introduction of competition in industries that are in the process of shedding their natural monopoly characteristics. This has been the case, especially in telecommunications and in

parts of the electricity industry, such as power generation. As a result of greater openness in many countries, TNCs have come to assume a significant role in the provision of some infrastructure services.

The internationalization of infrastructure has taken varying trajectories in different parts of the world. Developed countries witnessed the birth of several large infrastructure TNCs in the 1990s. They typically arose out of former public monopolies. Their overseas expansion contributed to increased FDI and other forms of TNC participation, such as concessions and management contracts, among developed countries as well as in some developing and transition economies. In the latter, new investment opportunities emerged from major privatization programmes of State-owned infrastructure assets. In addition, the liberalization of infrastructure industries in developing countries has contributed to the emergence in the South of a number of TNCs in these industries.

Policymakers today have a menu of options for maintaining and developing their countries' infrastructure. The challenge is to assess the potential costs and benefits associated with different options, such as retaining infrastructure services within the public sector, offering concessions to prospective investors and full privatization to the private sector, including TNCs. Some countries have experimented with different solutions for over two decades, and various lessons have been learned. Other countries are still in the process of opening up to foreign involvement. Governments need to consider many factors when deciding whether or not to involve TNCs and, if so, in what way they should promote such involvement.

Which modes of participation have the greatest chances of maximizing the



net benefits of TNC entry, for example, in terms of improved service supply and reduced costs? What does it take to attract desirable forms of TNC involvement? The responses to these and other questions depend on the context. There are no one-size-fits all solutions. Governments need to determine what kinds of policies they will put in place in order to secure the desired outcomes, including helping to eliminate poverty and attain the Millennium Development Goals (MDGs).

After two decades of experience with TNC involvement in the infrastructure industries of many developing countries - including its failures as well as successes - an understanding of the nature, extent and implications of that involvement is just emerging. Mobilizing and facilitating greater financial flows to developing countries, and especially to LDCs, remain a challenge for the international community. It is against the background of the economic and social importance of infrastructure that this year's *World Investment Report* is devoted to the issue of *Transnational Corporations and the Infrastructure Challenge*.

Part Two is organized as follows. Chapter III presents new data on the role and evolution of TNC participation in infrastructure. It explores the characteristics, trends and evolution of infrastructure industries, including the changing role of the state, the rise of new players and an assessment of infrastructure needs (and investment gaps) in developing economies. It goes on to examine the trends and patterns of TNC involvement in different industries, and offer an insight into the universe of infrastructure TNCs, and their competitive advantages, drivers and strategies. Chapter IV assesses the extent to which TNC participation has contributed to achieving various infrastructure-related development objectives. Finally, chapter V maps recent policy developments and considers the implications of the findings of chapter IV for national and international policies to harness TNC participation in infrastructure industries. Particular attention is given to how different forms of financing, whether domestic or foreign, and including overseas development assistance (ODA), can be leveraged in a complementary fashion to meet the specific infrastructure needs of developing countries, particularly LDCs.

CHAPTER III

TNCs IN INFRASTRUCTURE INDUSTRIES

The provision of good quality infrastructure services is a prerequisite for economic and social development. In terms of both the quantity and quality of key infrastructure services and utilities, such as electricity, telecommunications, transport and water supply, there are significant gaps between developing and developed countries and among developing countries at different stages of development. Indeed, in developing countries, insufficient provision of infrastructure and related services is one of the main obstacles to accelerating or maintaining the pace of development and to achieving the Millennium Development Goals (MDGs) set by the United Nations in 2000. One way of addressing the shortfalls in infrastructure and related services in developing countries is to mobilize FDI and other forms of TNC participation to supplement and complement the activities of domestic public and private infrastructure enterprises.

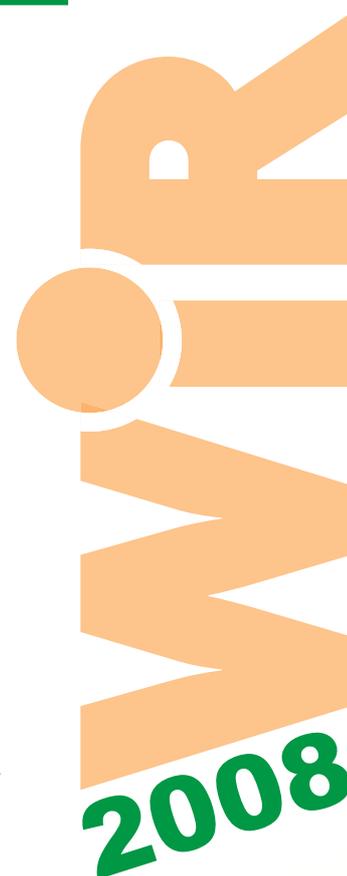
This chapter examines the involvement of TNCs in the establishment and operation of infrastructure facilities and related services, especially in developing countries. It begins with a review of developments in infrastructure industries, examining their distinctive features and the scale and scope of infrastructure investment and operations worldwide. Section A analyses various factors that influence FDI and TNC activity, including the impact of globalization and technological changes, the changing role of the State, the prevalence of investment gaps and the rise of new players to help bridge these gaps. Section B identifies trends in FDI and other types of TNC involvement in infrastructure industries,

especially in developing countries. Section C reviews the main TNC players involved, and section D discusses the determinants of TNC investment and activities.

A. Main features of infrastructure industries and emerging issues

1. Characteristics of infrastructure industries

There is no commonly agreed usage of the term infrastructure, but the concept, in its broadest sense, comprises the physical facilities, institutions and organizational structures, or the social and economic foundations, for the operation of a society. Within this broad concept, social infrastructure (e.g. health and education) can be distinguished from economic infrastructure. The latter directly supports production activities of enterprises at various points of the value chain, and is thus directly relevant to the competitiveness of firms and to economic development. *WIR08* focuses on *economic infrastructure*,¹ which is a homogeneous group in the sense that it underpins the functioning of other economic activities, and is hence directly relevant to the competitiveness of firms and to economic development. Infrastructure² consists of a group of industries, including electricity, gas, telecommunications, water and sewage, airports, roads, railways and



seaports (the last four collectively referred to as transport infrastructure).³ Nevertheless, the definition is fluid, especially with the advent of advanced information and communication technologies (ICT) that have affected the nature of telecommunications facilities and services.

The activities of the infrastructure industries can be considered as including the establishment, operation and maintenance of fixed infrastructure. This report focuses on the infrastructure industries themselves, as presented in table III.1 (listing different categories based on Standard Industrial Classification (SIC) codes), which include both “infrastructure facility operation and maintenance” (e.g. power stations) and “infrastructure services” (e.g. electricity distribution services). It distinguishes between the infrastructure industries per se (“infrastructure”) and broader, related activities, which include services directly relying on the provision of infrastructure (table III.1). For example, airports and seaports – and the services they provide to vehicle and aircraft operators – are included as infrastructure, but not the actual air transport or shipping activities that utilize these infrastructure facilities and services.

There is a close relationship between infrastructure industries and supplier industries and activities, such as the construction industry (backward linkages), and user industries such as air, road or sea transportation services (forward linkages). Both supplier and user industries fall outside the boundaries of infrastructure as used in this report (table III.1), even though they are closely related as providers of inputs or as direct users of services. In addition, the analysis of TNCs in this chapter also makes a distinction between those firms whose primary operations are in an infrastructure industry (infrastructure TNCs or firms “rooted” in infrastructure) and those, such as manufacturing or financial firms, that have ancillary operations in infrastructure (other TNCs in infrastructure).

Infrastructure activities are often regarded by many investors and operators as high-risk undertakings, especially when conducted in developing or transition economies (Ramamurti and Doh, 2004). Some of these risks are common to all kinds of infrastructure projects, while others pertain to a specific industry. These risks may be accentuated when investors operate in foreign countries and investments are undertaken in low-income countries. Risks from the corporate perspective include uncertainty of returns on investment in infrastructure, political risk (e.g. governments reneging on contracts, popular protests against private or foreign firms) and the ability of users to pay. Moreover, not all political and other non-commercial risks can be covered through the private insurance market (Berne Union, 2008). Governments also need to consider the risks

they face from investors, including TNCs reneging on contracts. The high-risk nature of infrastructure activities, as well as other aspects of infrastructure industries that influence investment, derive from some of the distinctive features of these industries:

- Infrastructure industries include very capital-intensive and complex activities (boxes III.1–4). Typically, infrastructure assets last a long time, involve huge sunk costs and are location-specific. This makes them formidable undertakings, especially for developing countries, which often depend on technology, expertise and financial resources from overseas.
- Since infrastructure industries often involve (physical) networks, they are frequently oligopolistic (or monopolistic) in nature. Thus control or access to the network can be a key competitive advantage, and requires strict regulation.
- Many societies regard access to infrastructure services as a social and political issue. Such services may be considered public goods, in the sense that they should be available to all users, and some (e.g. water supply) are considered a human right.⁴ Other infrastructure industries or services, such as ports, are considered by many governments to be of strategic importance.
- Infrastructure industries are a major determinant of the competitiveness of an economy as a whole. Their role as inputs for all other industries means that the entry and performance of private companies (including TNCs) in infrastructure activities have to be evaluated not just in terms of the efficiency and competitiveness of the services concerned (based on cost, price and quality, for example) but also in terms of their impact on industrial users.
- Infrastructure is key to economic development and integration into the world economy (ESCAP, 2006; OECD, 2006a; World Bank, 2005).⁵ Good transportation and telecommunications infrastructure can contribute to an economy’s national and subnational competitiveness⁶ and to poverty alleviation.⁷ The provision of efficient and adequate electricity is vital for industrial development and economic growth, but also for helping countries attain the MDGs, including poverty alleviation (IEA, 2003). The provision of good infrastructure in turn is a major determinant of inward FDI (Bellak, Leibrecht and Damijan, 2007; Kirkpatrick, Parker and Zhang 2006; Asiedu, 2002).

Because infrastructure is essential for development, increasing investment in this area of activities should be a priority for developing countries. It is not a question of “if” but rather “what”, “when”, “how much”, “by whom” and “for whom” (section

Table III.1. Infrastructure industries and related activities

Infrastructure		Supplier industries and activities	Infrastructure sectors		
			Infrastructure industries		Services relying directly on infrastructure
			Facility operation and maintenance	Infrastructure services	
Transport	Seaports	...	Marine cargo handling (4491)	Towing and tugboat services (4492)	Deep sea transportation of freight (441–442)
	Railroads	Railway track equipment (part of 3531)	Railroads, line-haul operating (4011)	Railroad switching and terminal establishments (4013)	Local and suburban transit (4111)
	Roads and highways	Heavy construction other than building (16, exc. 1623)	Terminal and joint terminal maintenance (423)	Terminal and service facilities for motor vehicle (417)	Motor freight transportation and warehousing (421–422)
	Airports		Airports, flying fields, and airport terminals (458)		Air transportation (451–452)
	Other	Parts of heavy construction, not elsewhere classified (1629)	...	Parts of miscellaneous services incidental to transportation (4785)	
Telecommunications	Telephone and telegraph apparatus (3661)		Telephone communications (481)		Radio broadcasting stations (4832), Television broadcasting stations (4833)
	Telephone interconnect systems (7385)		Telegraph and other message communications (482)		
Water			Water supply (494)		Irrigation systems (497)
			Sanitary services (495)		
Power	Water, sewer, pipeline, and communications and power line construction (1623)		Electric services (491) (generation and transmission)	Electric services (491) (distribution)	...
			Natural gas transmission and distribution (4922), gas production (4955)	Natural gas transmission and distribution (4923) and distribution (4924)	
			Combination electric and gas, and other utility (493)		
			Steam and air-conditioning supply (496)		

Source: UNCTAD.

Note: The classification used here is based on the SIC codes indicated in brackets.

A.2). At the same time, the questions surrounding investment by private companies (including TNCs) in infrastructure activities are more far-reaching than in most other industries, and touch on the economic, social and political spheres (chapter IV).

Each infrastructure industry has its own individual characteristics. Therefore, while the above-mentioned features generally apply to all of them, it is important to note the distinctive characteristics of electricity generation, transmission and distribution (box III.1), fixed-line telephony, mobile telephony and Internet telecommunications (box III.2), seaports, airports, roads and railways (box III.3) and water and sewage (box III.4) in the analysis.

Infrastructure, by its very nature, and due to social and political preferences is frequently subject to public intervention. Such intervention adds to the risky nature of infrastructure from a corporate perspective. Nevertheless, private sector involvement in infrastructure has increased in recent years. Indeed, its potential for high returns in the long term is often sufficiently enticing to companies. Consequently,

in recent years a number of players other than infrastructure firms have expanded their presence in infrastructure industries, including private equity funds.

Defined by technology and regulation, each infrastructure industry includes potentially competitive and non-competitive segments (table III.2). Non-competitive areas include transmission and distribution networks, such as transmission lines in electricity; cables and switching centres in fixed line telecommunications; tracks, signals and stations in railways; landing strips at airports; and pipes and sewers in water supply. Such networks, positioned between upstream production and downstream supply, are very capital-intensive and involve large sunk costs and assets that are of minimal use for other purposes. Once built, they are location bound and cannot be moved to other sites. These features mean that such activities retain the characteristics of natural monopolies. Other upstream and downstream segments, on the other hand, offer greater potential for competition. In electricity, telecommunications

Box III.1. Main features of electricity infrastructure

There are three segments to the electricity industry: generation, transmission and distribution. Together, they form an important part of the backbone of a modern economy. Without adequate investment and a reliable supply of electricity, an economy is unable to function efficiently, economic growth targets are difficult to achieve, outages and blackouts are common, and it is difficult to attract FDI to help create employment and advance industrial development. The provision of electricity has a public good element in that it helps reduce poverty, and improves quality of life.

The electricity industry is technology- and innovation-intensive. Technological change, especially in electricity generation, is affected by social considerations, such as national and international concerns over climate change and environmental conservation. The use of environmentally friendly and clean technology, (e.g. hydropower plants) and renewable energy (e.g. wind and wave power) are expected to see continued growth.

In some segments of the electricity industry, economic and technical characteristics make it possible to introduce competition; in other segments they do not. For example, *electricity generation*, if separated (unbundled) from transmission and distribution, can involve a number of independent and competing providers, and hence can be structured as a competitive business. *Transmission networks*, in contrast, are a classic natural monopoly, as it is not economical to build parallel networks to transmit the same energy, which is why most countries have only a single entity owning and operating them.^a At the end of the supply chain, *electricity distribution* can also be made competitive, although that may be constrained by the fact that distribution requires a physical network, which is a natural monopoly. Therefore, while wholesale distribution can usually be a competitive business, retail services can be made so only if regulations allow companies not affiliated with the transmission company access to a network's "final mile", which connects electrical substations with businesses and residences.

Source: UNCTAD.

^a An especially large country might have multiple transmission operators, but even in this case each operator will have a monopoly within its own (typically large) geographic region.

Box III.2. Main features of telecommunications infrastructure

Telecommunications are carried out by transmitting signals over a distance through electromagnetic waves. Within telecommunications infrastructure, fixed-line telephony, mobile telephony, and transmission of digital data are the most important segments. They differ from each other in terms of their technology, how services are delivered, and in some of the specific services they offer to consumers. Investment in telecommunications infrastructure can enhance economic growth directly – through its demand for inputs – and indirectly, as better communication networks help firms in other industries improve and expand their production capacities (Madden, 2008). Given the growing role of telecommunications in development, access for all persons and societies to good telecommunication infrastructures is increasingly regarded as important. Telecommunications can be considered a public good in the sense that every member of society can benefit from them, and they can be used by additional consumers without generally risking depletion, although they are not provided free and users contribute to their cost.

Since all telecommunications are based on networks, it is important that different modes and technologies of communication are able to connect to each other. In this respect, there has been significant progress, although newer segments such as mobile telephony are less dependent on physical infrastructure than traditional fixed-line telephony, which requires greater investment for wired installations.

Technological change has led to increased competition and contestability in the industry, especially because of the rise of mobile telephony. Technological progress has reduced the cost of physical infrastructure, allowed the establishment of parallel mobile telecommunications networks and eliminated dependence on monopolies that control fixed lines. As a result, a large number of new, competing enterprises have emerged. Established firms have had to respond to this challenge by innovating quickly, and by moving into new segments. Introducing competition has been easier in mobile and Internet telecommunications than in traditional fixed-line telephony (ITU, 2007b).

The sector continues to innovate rapidly, with implications for services. For example, digitization allows any type of information to be transmitted over one network: voice, data and video. This is pushing the transition to so-called next generation networks, which are essentially built around Internet protocol (IP) technology and are accelerating the convergence between fixed-line and mobile telephony.

Source: UNCTAD.

Box III.3. Main features of transport infrastructure

Transport infrastructure comprises a heterogeneous group of industries, including roads, railways, airports and seaports. An integrated transport infrastructure that includes all these modes makes it possible to link underdeveloped parts of a country and regions into the global economy. For manufacturing and trading activities, the quality and coverage of transport networks significantly influences the costs of production and distribution (Aoki and Roberts, 2006). In this context, the role played by seaports is critical, because around 80% of global trade is estimated to be carried by sea (UNCTAD, 2008e). Thus efficient seaports can directly and indirectly contribute to the development of an economy by facilitating trade and providing a hub for industry clusters, which may also provide backward linkages in skills, technology and investment.

Technological innovation in transport has occurred mainly through the introduction of sophisticated computerized handling systems in response to the need to manage the global increase in containerized trade. In general, an integrated transport infrastructure offers a wider choice of transport options for users, which in turn encourages greater competition and efficiency, resulting in lower transport costs to the consumer.

For a country to spread development throughout its economy, an integrated, multimodal transport network is necessary. Landlocked countries, some of which are least developed countries (LDCs), have the additional burden of relying on their neighbours to have such an integrated multimodal transport network to link them to the world economy. Consequently, regional transport networks are a significant feature of investment in infrastructure across Africa, Asia and Latin America.

Source: UNCTAD.

Box III.4. Main features of the water industry

All activities along the water industry supply chain – extraction, transmission, distribution and supply – involve economies of scale. For this reason, the provision of water services typically involves high sunk and fixed costs incurred by large-scale centralized projects, and requires significant energy inputs. At the same time, the expansion of services, the replacement or maintenance of existing facilities, and their adaptation to security and environmental norms require large capital investments and considerable planning (OECD, 2007a).

Water supply has failed to keep pace with rising world population, leading to chronic shortages in several regions of the world. This is however due mostly to problems with water management and investment problem, and less to the lack of available sources of water. The gravity of the situation is reflected in the MDG declarations that recognize water availability and access as a priority goal. Even in developed countries, affordability of safe water among the poorer segment of society has become a critical issue. Moreover, it must be borne in mind that water is used not only for direct human consumption, but also for economic purposes in agriculture and manufacturing. In 2000, only 10% of world water withdrawal took place for households. Industry accounted for 20% and agriculture for 70%.^a

The scope of governments for introducing competition in the water industry is limited, although in principle the extraction and retail supply segments could be made competitive. Water distribution remains a natural monopoly because its main costs come from laying a network of pipes to deliver water, and it is economically not interesting to introduce competition by duplicating the network. Moreover, unbundling is not always attractive due to the high costs and problems associated with connectivity, and due to the fact that most of the costs of water still arise in distribution, which is a natural monopoly. Considerations of water as a basic need can further add to the limits of unbundling.

Source: UNCTAD.

^a In developing and transition economies, these shares were 9% (households), 12% (industry) and 79% (agriculture). The calculation is based on data from the Food and Agriculture Organization of the United Nations' Aquastat database (<http://www.fao.org/nr/water/aquastat/>). Data were used for 141 economies of the world for year 2000, and for 17 economies for the latest year available (between 2001 and 2006).

and transportation, technological progress has helped to reduce scale requirements and costs, and enabled the introduction of new sources of competition to some extent.

Private and foreign investors can enter formerly publicly provided infrastructure services if a given segment is unbundled from the rest of the industry. Unbundling refers to a separation of segments of an industry from each other.⁸ Unbundled

segments of infrastructure can be owned and/or operated by different enterprises competing with one another. However, network segments retaining the characteristics of a natural monopoly – regardless of whether they are publicly or privately owned – as well as interactions between more competitive and less competitive segments require special attention (Kessides, 2004; Newbery, 2006; Ure, 2008). If potentially competitive segments are not unbundled,

Table III.2. Non-competitive and competitive segments of modern infrastructure industries

Industry	Usually non-competitive segments	Potentially competitive segments
Electricity	High-voltage transmission and wholesale electricity distribution	Generation and supply to final consumers
Telecommunications	Local residential telephony or local loop	Long-distance, mobile and value-added services
Water and sewage	Local distribution and local wastewater collection	Production, long-distance transportation, purification and sewage treatment
Transport		
Railways	Track, stations and signalling infrastructure	Train operations and maintenance facilities
Air transportation	Airport facilities such as take-off and landing slots	Aircraft operations, maintenance facilities and catering services

Source: UNCTAD, based on Gönenc, Maher and Nicoletti, 2000; and Kessides, 2004.

or if the service provider is protected from competitive pressures, it is difficult to create the necessary incentives for cost control, pricing and enhanced performance and, ultimately, investments (Joskow, 1996; Berg, 2001).

2. The infrastructure investment gap in developing countries

The future investment needs of developing countries for infrastructure development far exceed the amounts currently planned by governments, the private sector and other stakeholders. This has

created a significant gap in financing investment in infrastructure industries. Indeed, such investment needs are growing with increasing population, rapid economic growth and urbanization, among others, and finding the necessary funds remains a major challenge for most developing countries. However, accurate estimates of infrastructure investment needs and financing gaps are difficult to obtain (box III.5). The World Bank has estimated that, on average, developing countries *actually* invest about 3–4% of their GDP on infrastructure annually, whereas that they *should* be spending about 7–9% on new investment projects and maintenance of existing infrastructure, if broader economic growth and poverty reduction goals are to be achieved (World Bank, 2008b; Fay and Morrison, 2007). Of the amount actually invested in developing countries, public funding accounts for about 70% of the total, private financing represents a further 20% and ODA makes up the remainder.⁹ In order to meet the shortfall, governments need to tap into all sources of investment funds, including TNCs.

There is a significant though varying gap between actual and needed finance for infrastructure investment across all developing regions and infrastructure industries. In *sub-Saharan Africa*, this gap may exceed 50%. An estimated annual investment of \$40 billion in new infrastructure facilities and maintenance is needed until 2015 to meet the subregion's MDG poverty reduction targets. This assumes an average annual economic growth rate of 7% and annual investment in infrastructure of 9% of GDP (Estache, 2005a; Taylor, 2007), with roads and electricity requiring the largest investments (table III.3). Yet only, \$16.5 billion is likely to be

Box III.5. Estimating investment needs and financing gaps

It is difficult to obtain comparable, consistent and accurate estimates of infrastructure investment needs and financing gaps. Differences in terms of methodologies and assumptions, data coverage and reliability, sectoral variations, price movements and other factors mean that different estimates for even the same region often differ significantly. For example, recent estimates by the Asian Development Bank (ADB) and the Economic and Social Commission for Asia and the Pacific (ESCAP) of infrastructure financing needs in the Asia and Oceania region for the period 2006–2010 differ for both the total investment needed and the financing gap (box table III.5.1).

Box table III.5.1. Asia and Oceania: Varying estimates of infrastructure financing needs for 2006–2010
(Billions of dollars)

Source	Investment required	Financing gap	Remarks
Asian Development Bank, Japan Bank for International Cooperation and World Bank (2000 prices)	228	180	Estimates are based on aggregate demand
Estimates derived from sectoral studies by ESCAP (2004 prices)	608	220	Estimates are based on sectoral demand

Sources: ADB, JBIC and World Bank, 2005; and ESCAP, 2006.

Most estimates are based on a “top-down” approach, in which investment needs are usually estimated on the basis of infrastructure requirements to support a certain economic growth rate or MDG target, including poverty reduction. Fewer studies use a “bottom-up” approach, which identifies investment needs for each infrastructure sector separately. In addition, some studies only assess investment needs in new infrastructure (e.g. the electricity study by the International Energy Agency), while other studies also cover investment needs for operation and maintenance.

Source: UNCTAD.

forthcoming annually from identifiable internal, external and ODA sources, leaving an estimated annual financing shortfall of \$23.5 billion (Taylor, 2007).¹⁰

The investment needs and financing gap of the *Asia and Oceania* region is also large, especially when considering the significant investment requirements of China and India (ADB, JBIC and World Bank, 2005). ESCAP calculated that over the period 2006–2010, the region would need to invest some \$608 billion annually in infrastructure development, while the actual annual investment in recent years has been only \$388 billion—generating an estimated investment shortfall of \$220 billion (box III.5; Heyzer, 2007). The case of India illustrates some of the financing challenges facing the Asia and Oceania region (box III.6).

In Latin America and the Caribbean, the financing gap is equally large. The region currently spends on average less than 2% of GDP on infrastructure annually, while some 3–6% of GDP is required (Omura, 2006; Fay and Morrison 2007). Public sector investment in infrastructure in the

region has fallen considerably. This is partly due to fiscal adjustments to macroeconomic crises and a tendency by some governments to reduce public investment because of privatization initiatives, and a shift towards giving the private sector responsibility for infrastructure financing and management (Fay and Morrison, 2007). Private investment in infrastructure in the region has increased, but not enough to fill the gap in financing; and it has been unequally distributed across industries as well as by countries.¹¹

Regional integration in Asia and Oceania, Africa and Latin America and the Caribbean is also accentuating regional infrastructure development and cooperation in transport, energy grids, ports and airports. Physical infrastructure connectivity is important to support regional integration, which in turn is crucial for facilitating intraregional trade, production and investment. This form of South-South regional cooperation is helping to boost economic development in the respective regions. The investment needs of these projects are also significant, although in some cases intraregional infrastructure activity can help bridge overall financing gaps in countries

Table III.3. Sub-Saharan Africa: estimated annual infrastructure investment needs in selected industries, 2006–2015^a

(Annual average, in billions of dollars)

Item	Electricity	Telecoms	Roads	Rail	Water ^b	Sewage	Total	Financing gap ^c
New investment	5.5	3.2	9.8	-	1.8	2.7	22.8	23.5
Operation and maintenance	3.3	2.0	7.4	0.8	1.4	2.1	17.2	
Total	8.8	5.2	17.2	0.8	3.2	4.8	40.0	23.5

Source: UNCTAD, based on Taylor, 2007; and Estache, 2005a.

^a Based on the estimated annual investment needs of \$40 billion to achieve the subregion's MDG poverty reduction targets by 2015.

^b Excluding investment needs for irrigation.

^c Identifiable financing sources total \$16.5 billion altogether, \$8 billion from internally generated funds, \$5 billion from external funding and \$3.5 billion from international financial institutions, loans and ODA.

Box III.6. India: Financing infrastructure

Over the period 2007–2012, India will need investment averaging \$99 billion per annum in 10 major infrastructure segments, to support a planned annual GDP growth of 9% (box table III.6.1). The public sector is expected to provide 70% of this investment, and the private sector the rest. Moreover, the private sector is expected to take the lead in financing some infrastructure such as telecommunications, ports and airports. However, these ambitious plans could face the same financing gaps as those of the preceding periods: over the period 2001–2010, for instance, the annual financing gap is estimated at close to \$14 billion (box table III.6.1). So far, FDI has played only a very small role in the overall financing of infrastructure. Between April 2000 and February 2008, India attracted an average of only \$1.3 billion of FDI per annum in electricity, roads, telecommunications, ports, railways and airports.

Source: UNCTAD.

Box table III.6.1. India: estimated annual infrastructure investment needs, financing gaps and FDI flows, various years
(Billions of dollars)

Industries	World Bank estimates Fiscal years 2001–2010		Government of India estimates		April 2000 – February 2008
	Investment needs	Financing gap	Fiscal years 2002–2007	Fiscal years 2007–2012	
			Investment needs	Projected investment needs ^a	Actual FDI inflows
Energy	26.5	8.7	14.2	30.0	0.2
Roads ^b	11.6	2.8	7.0	15.2	0.4
Telecom	5.4	1.2	6.0	13.0	0.5
Ports	0.8	0.6	0.2	3.6	0.1
Railways	3.1	0.4	5.8	12.6	0.1
Airports ^c	0.5	0.2	0.4	1.6	0.0
Total	47.9	13.9	43 ^d	98.8 ^d	1.3

Sources: World Bank, 2006; and India, Planning Commission, 2007.

^a In constant 2006–2007 prices.

^b Including construction activities.

^c Including airfreight.

^d Total for 10 infrastructure sectors identified.

through a sharing of development costs or exploiting economies of scale and scope.

The national and regional infrastructure investment gaps in developing countries are resulting in funding shortfalls across all infrastructure activities. A leading example of this gap is in electricity, given the scale of power blackouts in rapidly growing developing economies such as Brazil and South Africa. It has been estimated that during this decade, to 2010, developing countries will need to invest \$160 billion annually in electricity generation, transmission and distribution, but so far, only about half of this amount has been forthcoming. Consequently, blackouts and limited access to electricity will hamper future economic growth and achievement of the MDGs unless further investment is found, a situation made more difficult by the fact that annual investment needs in the industry will rise further to \$250 billion in the period up to 2030 (Krishnaswamy and Stuggins, 2007; IEA, 2007). The investment gap is also large in other infrastructure industries, with the possible exception of telecommunications, in which costs are falling because of rapid technological progress (Minges, 2008).

The magnitudes of the infrastructure investment needs of developing countries are huge, and even with identifiable sources of finance the gaps remain enormous. Unless the current level of infrastructure spending in all infrastructure industries is increased to match projected investment needs, developing countries will face a serious challenge in meeting their targets for growth and development. This is particularly true for those countries and regions where public sector budgets are limited, private investment has fallen short of needs, and where ODA support is declining. Governments will have to seek investments from a variety of sources to help fill the financing gap, including official flows – in particular ODA – and private investors, both domestic and foreign.

3. The role of the State and other players in infrastructure industries

From the period following the Second World War until the 1980s, infrastructure industries were by and large the purview of the State, sometimes run through State-owned enterprises (SOEs). Since then, governments have opened up these industries, resulting in significantly increased involvement of the private sector – including TNCs and other players – in their financing, investment, ownership and management.

The reasons for involving the private sector, and the pace of reforms, have varied by country and industry.¹² They include the need for reducing the

fiscal burden on the public sector and for greater investment in order to rehabilitate deteriorating facilities and services or build new ones, enhancing management performance and encouraging the transfer of technology and expertise (Kessides, 2004; Sharan et al., 2007; Ure, 2008; box III.7). The process of changing the role of the State and increasing private sector participation involved a series of reforms, such as enterprise restructuring, market liberalization and regulatory changes.¹³ Today, the private sector is a significant participant in many infrastructure industries globally, in countries of all political hues, and its role is likely to increase further because of the huge investment, technology, skills and management needs in developed and developing countries alike.

The earliest moves towards liberalization in infrastructure industries, during the late 1970s and 1980s, stressed different aspects of the reform process. For example, in the United States, the emphasis was on regulatory reform and unbundling,¹⁴ in the United Kingdom it was on privatization along with regulatory reform; and in some European countries on different types of reform (including the creation of infrastructure SOEs) depending on the member country (Clifton, Comín and Díaz-Fuentes, 2007).

A variety of experiences also marked the second wave of liberalizations in the 1990s, as countries in Africa, Asia, Latin America and the Caribbean, and South-East Europe and CIS reformed their infrastructure industries. Many of these countries opted for market liberalization through divestitures of State assets and other forms of private participation,¹⁵ including the involvement of TNCs. Indeed, many of these TNCs had been established in the first wave of liberalizations (section C).¹⁶ Other developing countries took different approaches, for instance by choosing a strategy based on the corporatization SOEs (box III.8) as the central or major plank of their infrastructure reforms. However, such an approach is generally feasible only in countries that have (a) relatively good State-owned infrastructure facilities that can be restructured and are able to absorb new technologies and skills; (b) the funds necessary for restructuring; and (c) effective planning processes able to formulate and realize a long-term vision. Because of this, only a limited number of countries have taken this approach, such as China, Singapore and South Africa (Sharan et al., 2007; Heracleous, 2001; Kessides, 2004; section IV.A).

New players have emerged in infrastructure industries in many countries, both as operators and financiers, following the reduced or altered role of the State in infrastructure investment and operations. Some of these new operators – both SOEs and private firms – established mainly since the 1980s, have evolved into TNCs in their own right (section C). In addition, there are also a number of mostly private

Box III.7. Private sector participation in water infrastructure in developing countries

Over the past 20 years, developing-country governments have explored the possibility of opening up elements of water infrastructure to the private sector: 64 developing countries had introduced some form of private participation in the industry by December 2007.

There are several reasons why governments have recently turned to the private sector, the most common being the extreme degradation of water networks in some countries. For example, in water-scarce countries in the southern Mediterranean, such as Algeria, Egypt and Jordan, unaccounted for water exceeds 40%, and average water supply is available for less than 12 hours a day. Therefore their governments introduced private sector participation mainly in order to gain access to more funding and to knowledge on how to manage water infrastructure. In addition, private participation is sometimes used to engage in and accelerate water sector reforms.

However, not all aspects of the water sector have been opened to private businesses. Most of the activities delegated to private firms concern potable water supply and water treatment. The types of contracts range from a simple service contract to full privatization. Experience with full divestiture of municipal water networks has been limited to five developing countries (Brazil, Chile, China, Malaysia and Thailand), with only Chile opting for a fully private system nationwide. Concessions have been by far the most prevalent type of contract since 1990 worldwide but recent data suggest that most new contracts awarded are related to the construction of potable water treatment plants under build, operate, transfer (BOT) arrangements.

A detailed review of case studies and econometric tests shows that the performance of the private sector has not necessarily been better than the public sector, and the choice of one or the other depends on a range of factors. Moreover, the experiences of countries in the southern Mediterranean indicate that TNCs, similarly to other private sector participants,^a possess three specific advantages over domestic private water companies and SOEs: global knowledge, financing capacity and economies of scale. In addition, their large portfolio of activities permits the pooling of risks and reduces the capital cost of each project. TNCs' competitive advantages over domestic private firms (where a domestic private water sector exists) partly explain why most private water contracts are awarded to international players.

Source: UNCTAD, based on Pérard, 2008 and supplementary information supplied by Edouard Pérard.

^a Naturally not all TNCs are private companies and some are partly or wholly State-owned, including in water.

companies in infrastructure-related industries, such as machinery suppliers or construction companies. Of course, there were some significant private sector enterprises in infrastructure before the reforms of the 1980s and they continue to operate.¹⁷

The function of integrating complex projects is becoming increasingly important because of their number, scale and scope, and because developing

countries are trying to leapfrog stages of infrastructural development (box III.9). Newer infrastructure TNCs are joining existing ones as leaders of consortiums and similar integrative activities.¹⁸ Since other firms and organizations possess the skills to manage large and complex projects, some of them, such as private equity funds, sensing profitable opportunities, are

Box III.8. City Power Johannesburg – a successful SOE in infrastructure

City Power is a corporatized public company distributing electricity to Johannesburg, where demand for power grows at an annual rate of 20–25%. Established in 2001 as a successor to a municipal department supplying electricity, it is wholly owned by the city of Johannesburg. It purchases electricity from the two power generation sources present in the Johannesburg Metropolitan Area: Eskom (which supplies to 80% of the market) and Kelvin Power Station (20%).^a Because of the growing demand for power, there is a need for massive investment in new capacities and maintenance. Supply is expected to be tight in the near future as the Government of South Africa would like to accelerate economic growth, and the country and the city have to prepare for the 2010 Soccer World Cup.

City Power is currently profitable because of efficient management and tariff collection, with practically 100% collected from business customers and over 90% from residential customers (up from 70–75% in 2001). The company's tariff system is pro-poor: it allows a quota of free basic electricity for all residents, with fees charged only on consumption that exceeds a specified minimum. Rates are set by City Power's board, on the basis of a formula of cost of electricity, plus mark-up to include profits, and they are approved by the national regulator. City Power believes that the previously low tariffs were mainly responsible for a low investment rate, which in turn led to frequent outages.

Source: UNCTAD, based on information provided by City Power.

^a The shareholders of Kelvin Power Station include foreign investors such as Macquarie Bank (Australia) (40%), FMO Netherlands (19%) and a spinoff company of AES (United States).

Box III.9. Stages of industrial development and infrastructure industries

Since the industrial revolution, today's developed countries have moved from endowed-assets-based industries to knowledge-based ones, as part of the process of economic development. This "ladder of development" reflects a progression of stages: natural-assets-driven (exemplified by apparel in labour-abundant economies and by raw materials and fuels in resource-rich economies) (stage I); scale-driven resource-processing (steel and basic chemicals) (stage II); assembly-based (automobiles) (stage III); R&D-driven (pharmaceuticals and microchips) (stage IV); and information-driven (stage V). At each stage of development, structural upgrading has led to different types of infrastructure to support the needs of the economy and society (box table III.9.1).

Today, developing countries are going through similar stages of development, sometimes a number of them simultaneously, since these stages can be combined or leapfrogged (e.g. the move to mobile telephony in countries where the cost of fixed-line telephony is prohibitive). It is in this context that infrastructure TNCs can actively assist developing host countries to improve and build up their infrastructure facilities and services.^a Their role can time-compress the catch-up process, ensuring that various forms of infrastructure development which used to be related to the stage of a country's industrial development can now be built simultaneously in developing countries. Successful latecomers can thus telescope (and even strategically reassemble) the stages of economic development in catching up with, and thereby joining the ranks of, developed economies (chapter IV).

Box table III.9.1. Stages of development and related infrastructure industries

Stage	Related infrastructure
I	Essential infrastructure: water, sanitation, roads, canals and ports
II	Large-scale physical infrastructure: coal-based and hydroelectric plants, extensive rail networks, freighter-accommodating ports, telegraph and telephony
III	Transport and logistics, including an extensive highway network, airports and commuter infrastructure
IV	Infrastructure supporting science clusters
V	Wireless telecommunications and virtual ICT networks

Source: UNCTAD, based on Ozawa, 2008.

Source: UNCTAD, based on Ozawa, 2008.

^a In other words, infrastructure TNCs are "infrastructure arbitrators" in the sense that they contribute to closing the gap between developed and developing countries, though perhaps not in all segments of infrastructure. This may, however, lead to another new gap within host countries, between the modern infrastructure provided by the TNCs in particular (notably in high-tech areas), and the still underdeveloped infrastructure in others – an unbalanced situation often described as "a cell phone for everybody, but no clean water."

also becoming significant players (Clifton, Comín and Díaz-Fuentes, 2007; Ernst & Young, 2007).

The new financiers, which as a group now provide some 20-30% of project finance in infrastructure (Orr and Kennedy, 2008; Hu, 2007),¹⁹ are a heterogeneous set of institutions which belong to two broad categories. The first group are private equity investors attracted specifically by opportunities in infrastructure industries, both in their home and foreign markets.²⁰ This group includes: (i) infrastructure investment funds,²¹ (ii) institutional investors, such as pension and mutual funds,²² and (iii) investment vehicles created by banks or infrastructure companies for the purpose of supporting their project financing or investment activity (Orr and Kennedy, 2008; McKinsey, 2007).²³ These investors are very significant in their domestic and foreign markets, both in financing and systems integration. For example, in 2007 they raised some \$34 billion of funds for infrastructure investment, and this is set to rise.²⁴ Several private equity firms are active in infrastructure in a number of developing countries.²⁵

The second group of new financiers are a variety of State-owned or government-linked entities, including sovereign wealth funds (SWFs), which have arisen mostly in developing countries as a result of trade surpluses in manufactured goods and services (e.g. in China, India, Malaysia, the Republic of Korea

and Singapore) or in commodities, especially oil (e.g. the Bolivarian Republic of Venezuela, Saudi Arabia and the United Arab Emirates) (McKinsey, 2008b; Part One of this *WIR*). These new players do not invest exclusively in infrastructure (including infrastructure TNCs); for strategic reasons, some of them (e.g. infrastructure financiers from China, India and South Africa) also invest to support other activities, including in the extractive industries overseas (as discussed in section D below and *WIR07*).

Despite the expansion of the private sector and the emergence of new players as both operators and financiers over the last two decades, the State's role in infrastructure remains critical (Sharan et al., 2007; Commission on Growth and Development, 2008). The State has always assumed multiple roles in infrastructure industries: as investor, customer, regulator and mediator (Doh and Ramamurti, 2003),²⁶ but is now increasingly involved as regulator and mediator (Sharan et al., 2007; Ure, 2008). Governments also recognize the crucial role that private operators and financiers play in establishing efficient and effective industries. Governments will continue to experiment with new models of building infrastructure facilities and delivering services, a good example of which is the rise of public-private partnerships (PPPs) in developed countries and, increasingly, in developing ones (Saghir, 2007; Northoff, 2008).

B. TNC involvement in infrastructure industries

This section analyses the generally rising trend in TNC involvement in infrastructure industries, focusing on developing and transition economies. Developments since the 1990s have historical parallels, since infrastructure services were commonly provided by private enterprises in the past, quite often by foreign investors (box III.10). After a rise in infrastructure FDI in the 1990s, mostly by TNCs from developed countries, the turn of the century witnessed a decline in infrastructure FDI flows, followed by a recovery more recently. Moreover, while developed-country TNCs divested from some failed or difficult projects, several developing-country infrastructure TNCs emerged, and are increasingly becoming significant players worldwide.

TNCs participate in infrastructure projects through equity or non-equity legal forms, or a combination of the two (box III.11). In addition, given the high risk, long gestation period and high capital intensity of such projects, they may enter host countries either as sole investors, or via special purpose vehicles or consortiums in cooperation with other

investors. The overall range of modalities extends from 100% equity ownership to fully contractual forms, without any equity involvement.

Privatization sales and greenfield projects are forms which entail equity participation by TNCs. Privatization sales²⁷ resulting in FDI occur when a foreign TNC buys an equity stake in a former State-owned enterprise through a direct asset sale. This can be a full privatization(s) (i.e. the government sells 100% of the equity in a State-owned company to the new owner) or a partial one (the government sells only part of the equity).²⁸ Privatization sales can be accompanied by additional investments (Kessides, 2004). Greenfield FDI projects may be wholly owned by foreign investors or take the form of a joint venture with local (private or State-owned) partners. Foreign investors obtain ownership of assets at the beginning of such a project and build a new facility, with the government normally providing no guarantees of revenue. The investor also assumes construction, operating and market risk for the project.

Non-equity forms, such as management and lease contracts, usually involve no ownership by participating firms. Firms assume the management responsibilities of State-owned assets for a fixed period, while ownership and investment decisions

Box III.10. TNCs and the early globalization of the electricity industry

“Modern” infrastructure, especially electricity, telecommunications and transport, began primarily as a private, international phenomenon in the late nineteenth and early twentieth centuries. One of the best examples of this is the early history of electrification and the role of TNCs in propagating the industry globally.

The emergence of the electricity industry in the late nineteenth century coincided with the beginning of the first age of globalization and creation of the first modern TNCs. Despite the rise of nationalism after the First World War, foreign ownership of electric utilities in the early twentieth century was common, in both developed and developing host countries. For example, in around 1930, electric utilities in many developed countries had foreign ownership of 10% or more, including Austria (with foreign ownership of 20%), Canada (34%), France (10%+), Poland (74%), Romania (50%) and Spain (27%). A similar situation prevailed in many developing countries, sometimes with far higher levels of foreign ownership, examples being Brazil (67%+), Chile (88%), China (51%+), Ethiopia (100%), Malaysia (46%) and Thailand (88%). A large number of TNCs from developed countries were involved, including those from Canada, France, Germany, Spain, Switzerland, the United Kingdom and the United States, with extensive investments in Africa, Asia and Latin America and the Caribbean. As today, there were many types of players.

Only rarely did electric utilities become TNCs; instead, other TNCs made foreign direct investments in electric utilities – among them TNCs in electrical equipment manufacturing, holding companies, and free-standing companies (i.e. companies headquartered in rich countries, but with no operations there). TNCs did not necessarily establish or create the electricity industry in host countries; instead, they frequently acquired existing enterprises and offered advanced technology, expertise and capital, which raised productivity and service quality.

Public sector involvement and the “domestication” (the transformation from foreign private to domestic – private or public – ownership) of infrastructure began after the First World War, and accelerated after the Second World War. This process was the result of various push factors: the growing notion of public services for essential commodities, including electricity (giving rise to political pressures to control prices, for instance), “natural” monopoly considerations, host countries’ perceptions of an “obsolescing bargain” (i.e. when the bargaining power shifts to the local authorities once an investment has occurred and operations begin), “national security” considerations and nationalism.

But just as it seemed as though TNCs had vanished from this industry by the end of the 1970s, there was a new round of TNC involvement that accelerated in the 1990s.

Source: UNCTAD, based on Hausman, Hertner and Wilkins, 2008.

Box III.11. Selected forms of TNC participation in infrastructure projects

In addition to pure equity or non-equity forms of participation in projects, TNC activities can take various forms that combine elements of both (box table III.11.1). In most cases, these mixed forms are either linked to concessions under which the TNC invests equity at least for a given period (the equity component) but also commits itself beyond that equity component, or to other equity-based participation in which the equity engagement is not time-bound. Taken together, these forms can be called “concessions”. Some combined forms resemble the FDI forms, as the elements of TNC ownership and equity participation dominate. In *build, own and operate* (BOO) contracts, for example, the main difference from greenfield projects is that the investor also brings in resources related to the host government’s guarantees for a minimum revenue. *Build, lease and own* (BLO) contracts are similar to BOOs, the main difference being that the foreign investor becomes full owner only at the end of a lease period. However, it builds a new facility largely at its own risk, although after the construction phase it transfers ownership to the government and leases the facility from the government. In this form, too, the government usually provides revenue guarantees.

In other combined forms, the foreign TNC is only a temporary owner of the facilities, and turns them over to the host country at the end of a concession period. However, as these periods are very long (often 20–25 years), the equity component of the investment realized during the concession period is still important. In such contracts, such as *build, operate and transfer* (BOT) and *build, own, operate and transfer* (BOOT) arrangements, the foreign investor builds the facility at its own risk, owns (and operates) it at its own risk, then transfers ownership of the facility to the government at the end of the concession period. The government usually provides revenue guarantees. In *build, rehabilitate, operate and transfer* (BROT) contracts, the foreign developer not only builds a new facility, but combines it also with the extension of an existing facility, or it completes a partially built facility and rehabilitates existing assets. Otherwise, it works like a BOT or BOOT contract. However, because of the element of rehabilitation, the non-FDI element can also be quite important.

Box table III.11.1. Equity and non-equity forms of TNC involvement in infrastructure

Fully equity	Concessions						Fully non-equity	
FDI projects (including privatization and greenfield projects and joint ventures)	Build, own, and operate (BOO)	Build, lease, and own (BLO)	Build, own, operate, and transfer (BOOT)	Build, operate, and transfer (BOT)	Build, rehabilitate, operate, and transfer (BROT)	Rehabilitate, operate, and transfer (ROT)	Rehabilitate, lease or rent, and transfer (RLOT)	Management and lease contracts

Source: UNCTAD.

In contracts starting with a rehabilitation phase, the non-FDI element may dominate. Under *rehabilitate, operate and transfer* (ROT) arrangements, the foreign investor rehabilitates an existing facility, then operates and maintains the facility at its own risk for the contract period. In the case of *rehabilitate, lease or rent, and transfer* (RLOT) contracts, the foreign investor rehabilitates an existing facility at its own risk, leases or rents the facility from the government, then operates and maintains the facility at its own risk for the contract period.

TNCs have invested in the different legal forms of infrastructure projects described in this box through long-term public-private partnerships (PPPs) with the host government and/or its SOEs.

Source: UNCTAD.

remain in the hands of the State. In a management contract, the government pays the foreign firm a fee for managing the facility, while the operational risk remains with the government. In a lease contract, the government leases the assets to the foreign firm, which also takes on the operational risk.

Other forms of TNC participation, such as build, operate, transfer (BOT) contracts, combine equity and non-equity elements: TNCs invest equity capital for the period of their engagement in the contract, and normally obtain control over the operations of the project. However, the TNCs also provide non-equity finance in order to carry out their contractual obligations. In the majority of infrastructure projects, TNCs leverage their equity with significant debt, and the latter is often the higher of the two (IJ

Online, 2008). Combined contracts are of two types: “greenfield” projects, if TNC participation involves a “build” phase in the project, or “brownfield” projects, if participation involves the rehabilitation of existing facilities. There is also a distinction between “concessions” (if at the end of the contractual period the assets revert to the State) and “other equity-based projects” (if at the end of the contractual period the TNC retains ownership of the facilities) (box III.11).

A range of factors affect the concrete form of TNC involvement in a given infrastructure project. Apart from issues such as regulations and the availability of takeover targets, other aspects include the scale, capital intensity and complexity of projects, their geographical extent (e.g. they may be regional in scope), the characteristics of the TNC and the level

of risk involved. Hence, there is no uniform pattern in the evolution of legal forms of TNC participation in infrastructure industries: the modalities vary between industries and regions, and over time.

1. Global trends

Trends in TNC involvement in infrastructure industries are difficult to discern because data are scarce and partial. The picture of global trends presented in this and the next section therefore relies on multiple sources of information, including data on FDI, cross-border mergers and acquisitions (M&As) and investment commitments, each with their respective strengths and limitations (box III.12).

Available data on *global inward FDI stocks* suggest that the share of infrastructure industries in total FDI globally currently hovers at close to 10%, but this represents a large increase over their roughly 2% share in 1990.²⁹ The biggest jump in this ratio occurred in the early 1990s, after which there was little change, despite a large absolute increase in infrastructure FDI (table III.4). Indeed, the share of electricity, gas and water as a group remained at around 2%, or less, of total FDI between 1995 and 2006; while that of transport, storage and communications reached a peak of 7% in 2000, but fell back to 6% in 2006. This global picture in FDI stock is also true at the regional level, with some exceptions, such as the relatively high share of electricity, gas and water industries in

Box III.12. Sources of data on TNC involvement in infrastructure

There is no single comprehensive source of data and information to provide a full picture of TNC involvement in infrastructure industries. The UNCTAD *FDI/TNC database* contains FDI data by industry for a limited number of countries. UNCTAD's *cross-border M&A database* provides information on individual deals in a larger number of countries, but their value does not necessarily correspond to the FDI value. In addition, there is little information available separately on FDI flow/stock data for transport infrastructure (airports, roads, railways, seaports), as it includes, for example non-infrastructure segments such as shipping and airlines. The World Bank's *Private Participation in Infrastructure (PPI) Database* covers all kinds of TNC involvement in developing countries, but only on a commitment basis. For these reasons, this and later chapters combine and utilize information from all of these databases, as well as other sources, including case studies prepared for this *WIR*.

The following are some observations on the coverage, strengths and limitations of each data source:

- Data on FDI stocks and flows (derived from UNCTAD's FDI/TNC database) are an accurate measurement of the equity participation of TNCs in infrastructure projects, but they only cover a limited number of countries. For example, inward stock data are available for 66 countries altogether, of which 28 are developing countries.
- Cross-border M&A data derived from UNCTAD's cross-border M&As database are available for almost all economies of the world, but cover only M&As, and not other modes of TNC entry, such as greenfield projects.
- The World Bank's PPI Database covers both equity and non-equity modes of TNC involvement. However, it is available only for the economies that are classified as "developing" by the World Bank.

Source: UNCTAD.

Table III.4. Inward FDI stock in electricity, gas and water, and in transport,^a storage and communications, by region, 1990, 1995, 2000 and 2006
(Millions of dollars)

Region	1990		1995		2000		2006	
	Electricity, gas and water	Transport, storage and communications	Electricity, gas and water	Transport, storage and communications	Electricity, gas and water	Transport, storage and communications	Electricity, gas and water	Transport, storage and communications
World	7 427	17 542	22 543	54 806	91 938	337 910	186 847	598 328
Developed countries	5 120	13 026	14 591	30 514	57 833	253 380	137 996	439 217
Developing countries	2 307	4 488	7 824	20 476	33 277	78 566	47 270	151 626
Africa	-	132	73	1 901	180	5 737	15	12 813
Asia and Oceania	14	1 366	1 875	10 944	5 884	34 708	13 833	80 121
Latin America and the Caribbean	2 293	2 990	5 876	7 630	27 213	38 121	33 422 ^b	58 692 ^b
South-East Europe and the CIS	-	28	129	3 816	828	5 965	1 581	7 486
Memorandum item: LDCs	-	1	240	209	396	627	2 511	870

Source: Annex table A.III.1.

Notes: Regional and world totals cover only 42 countries in 1990, 62 countries in 1995, 67 countries in 2000, and 66 countries in 2006 accounting for over three-fourths in 1990 and about three-fifths in 1995, 2000 and 2006 of world inward FDI stock. Totals for LDCs cover 5 countries in 1990, 7 countries in 1995, 8 countries in 2000 and 5 countries in 2006, accounting for 3%, 17%, 37% and 18% of LDCs inward stock respectively in 1990, 1995, 2000 and 2006.

^a Including transport services.

^b Estimated on the basis of partial data, and of cumulative FDI inflows to Brazil (2001–2006), Colombia (2003–2006) and Panama (2001–2006) in the respective industries.

FDI to Latin America and the Caribbean during the 1990s (annex table A.III.1).

The share of developing countries in global FDI stock in infrastructure increased between 1990 and 2000, from 27% to 37%, but fell back to 25% in 2006. Despite divestments from Latin America and the Caribbean, the region remained the largest host in 2006 for electricity, gas and water (table III.4). In transport, storage and communications, developing countries accounted for 37% of world FDI stock in this industry in the peak year of 1995, but for only 25% in 2006. This decline was partly because of divestments in Latin America and the Caribbean. The share of this region fell behind that of Asia, which by 2006 had emerged as by far the largest developing host region, accounting more than half of the inward FDI stock in the industry in developing countries.

The origin of FDI stocks in infrastructure is predominantly from developed countries though the relative share of developing and transition economies in total outward FDI stock in infrastructure has increased markedly (annex table A.III.2). In electricity, gas and water, the share of developing and transition economies in FDI stock in the industry had reached 7% by 2006, while the equivalent share in transport, storage and communications was 9%. These two groups of industries also feature prominently in the outward FDI strategies of a number of developing and transition economies.

In terms of individual countries, the United Kingdom, France, Spain, the United States and Canada – in that order – are estimated to account

for the largest share of worldwide of FDI stock in infrastructure (table III.5).³⁰

TNC involvement is an important source of infrastructure financing for developing countries. For instance, according to the World Bank PPI Database, the share of *foreign investors* in total investment commitments in developing economies in infrastructure industries (box III.13) was 29% over the period 1996–2006 (figure III.1).³¹ By region, the ratio of foreign to total commitments was relatively low in Asia (20%), where domestic private investment plays a relatively important role, and higher in Africa and Latin America and the Caribbean (36% and 33% respectively) (figure III.1). The ratio for South-East Europe and CIS was higher than that of any developing region in all infrastructure industries except telecommunications and water and sewage. In telecommunications, the share of foreign

Table III.5. Largest outward FDI stocks in infrastructure industries,^a latest year available
(Millions of dollars)

Rank	Home country	Year	Value
1	United Kingdom	2006	208 196
2	France	2005	99 524
3	Spain	^b	89 325
4	United States	2006	49 120
5	Canada	2006	41 610

Source: Annex table A.III.2 and UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

^a Including transport services.

^b Cumulative FDI outflows between 1992 and 2006.

Box III.13. Interpreting data from the World Bank's PPI Database

The *Private Participation in Infrastructure (PPI) Database* of the World Bank covers all forms of financial commitments by “private” entities in the infrastructure industries of countries that the World Bank defines as “developing”. However, its definition of developing countries differs from that of the United Nations. On the one hand, it excludes the high-income developing economies of Asia, such as Hong Kong (China), the Republic of Korea, Singapore and Taiwan Province of China; on the other hand, it includes all middle- and low-income transition countries, as well as those new EU members that are not high-income economies. Moreover, some “private” investors in the database are publicly owned foreign enterprises, either entirely or in part. The database registers financial commitments by all partners in a project (State and private), provided the private participant's share of the total project value is at least 15%. These commitments include both equity and non-equity contributions to investment (such as debt instruments). The database aims to be as comprehensive as possible on projects in the countries it covers, resulting in improved coverage and better methodology, especially since the mid-1990s.

Statistics on foreign commitments in infrastructure industries shown in this *WIR* are based on the PPI Database, but they are presented differently from the original PPI data:

1. They include only projects in which foreign investors were involved.^a
2. They show only the value of foreign investment commitments in the projects in which foreign investors participate.
3. They exclude projects the status of which was “cancelled” or “under distress”.

These adjustments having been made, the PPI data presented in this report are a good proxy for the financial commitments made by foreign investors in infrastructure projects that took place in a large number of (but not all) developing and transition economies (including new EU member States).

Source: UNCTAD.

^a Except figure III.1, which compares foreign commitments with domestic private and public commitments.

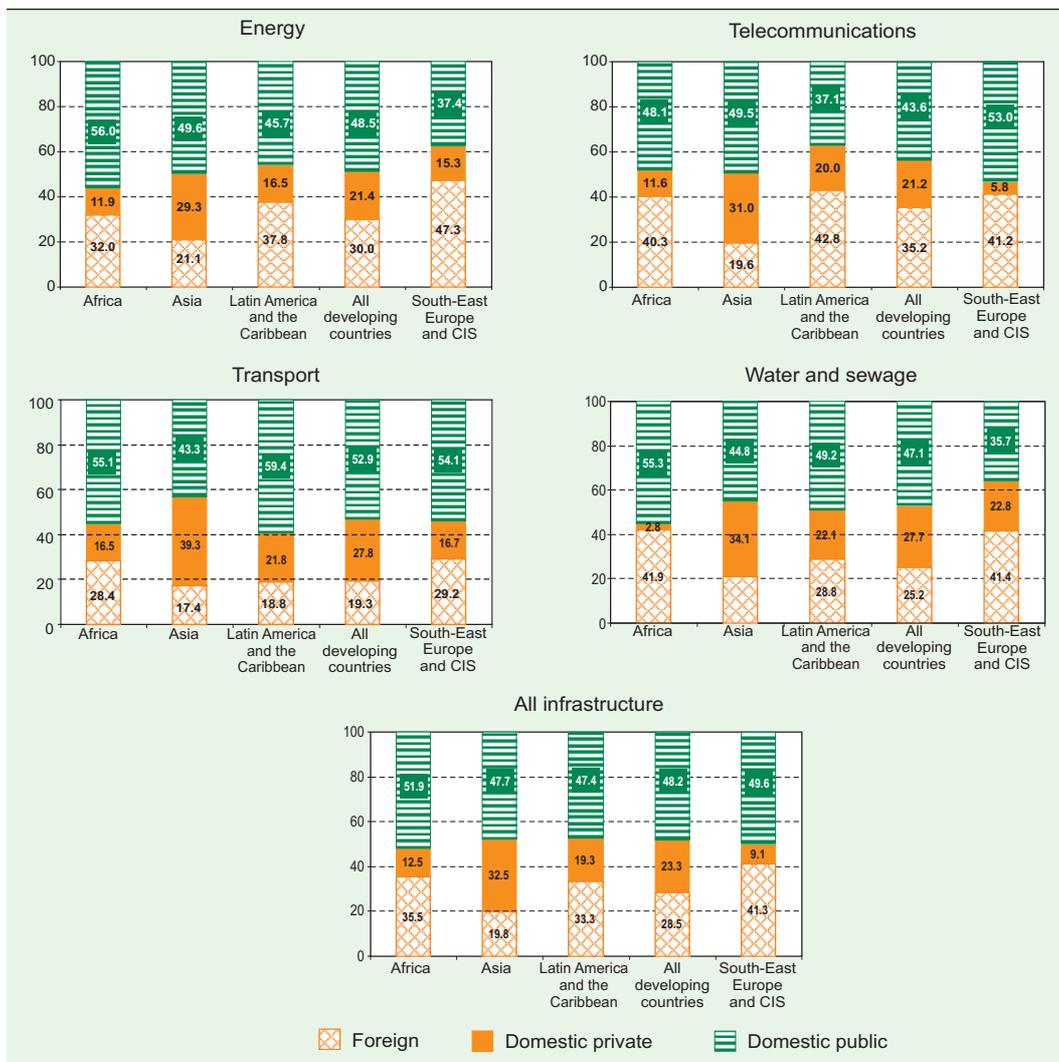
investors in total commitments was high, exceeding 40% in all developing and transition regions, except Asia. In other industries, foreign investors' share of commitments was significant in all regions, exceeding 15% in transport and 20% in energy and water (except in Asia) (figure III.1).

Data on *FDI flows* in infrastructure industries show that since the 1990s, TNC involvement in infrastructure industries has been rising, with a major surge (primarily in telecommunications) in the late 1990s and a downward correction in 2001–2003 (figure III.2).³² The period 2004–2006 was characterized by a partial recovery. Cross-border M&A data for all infrastructure industries and for the majority of countries (including developing

countries) confirm and complement this picture.³³ As in most industries, developed countries accounted for the bulk of cross-border M&As in infrastructure in 1991–2007 (figure III.3).

The worldwide industry composition of TNC involvement in infrastructure has changed over time. For example, the latest M&A data indicate a relative shift in emphasis towards electricity and away from other infrastructure industries, especially telecommunications (table III.6). In recent years, except for 2006, transport and water have been more modest target industries. Patterns of TNC involvement in infrastructure are largely determined by trends in mega transactions (box III.14).

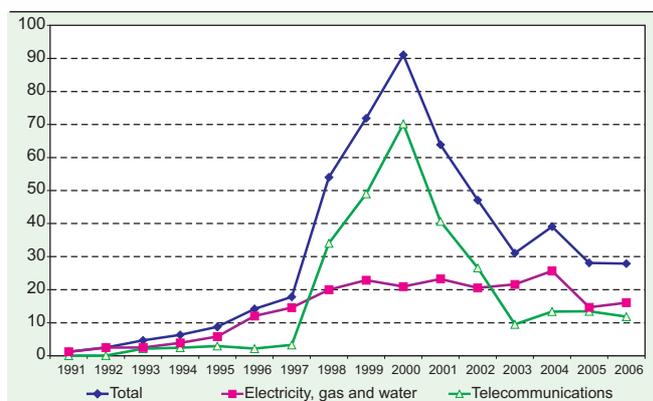
Figure III.1. Share of foreign and domestic private and public investors in the investment commitments of the infrastructure industries of developing and transition economies, by industry and region, 1996–2006 (Per cent)



Source: UNCTAD secretariat calculations, based on data from the World Bank's PPI Database.

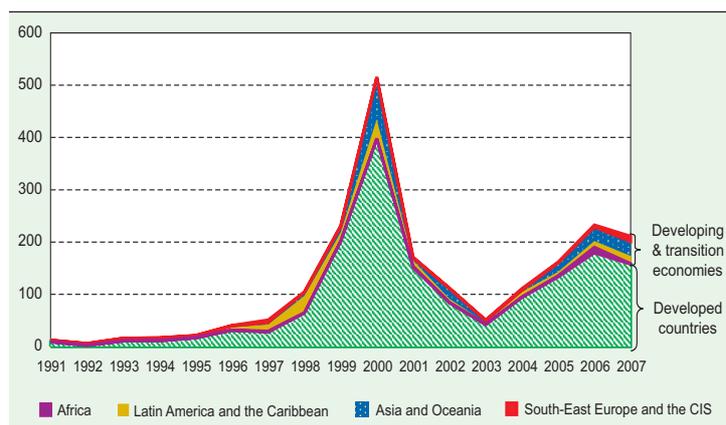
Note: Data cover all developing economies, except high-income developing economies such as Hong Kong (China), the Republic of Korea, Singapore, Taiwan Province of China; and all the transition economies (i.e. South-East Europe and CIS), except Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia, which are members of the EU and are classified as developed countries by the United Nations.

Figure III.2. FDI inflows in electricity, gas and water, and in telecommunications,* 1991–2006
(Billions of dollars, three-year moving averages)



Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).
* This figure shows data for 62 economies. The availability of data varied by year, between 3 (1991 in telecommunications) and 45 economies (2003 and 2004 in electricity, gas and water).

Figure III.3. Cross-border M&As in infrastructure by target region, 1991–2007
(Billions of dollars)



Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).
Note: The data cover only those deals that involved an acquisition of an equity stake of more than 10%.

Table III.6. Cross-border M&As in infrastructure by target industry, 1991–2007
(Annual average, millions of dollars)

Target industry	1991-1995	1996-2000	2001-2005	2006	2007
All infrastructure	14 074	188 341	121 001	232 417	210 764
Electricity and gas	5 560	39 118	45 049	45 455	119 492
Electricity and related services	4 965	36 305	37 362	41 706	98 052
Gas production and distribution	595	2 813	7 687	3 748	21 440
Telecommunications	5 760	138 381	66 553	118 469	61 066
Transport	2 437	6 696	5 856	51 195	19 328
Airports and airport terminal services	111	1 485	1 895	26 291	4 649
Railways	1 489	1 479	986	1 020	3 252
Seaports	205	316	945	6 193	4 580
Roads	633	3 416	2 030	17 691	6 847
Water	317	4 146	3 544	17 299	10 878

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

2. TNC involvement in developing countries

TNC involvement in the infrastructure industries of developing countries, measured by FDI, cross-border M&A and PPI data, mostly followed global trends, though there were regional differences. The inward FDI stock of developing countries in electricity, gas and water increased rapidly between 1990 and 2000 (from an estimated \$2 billion to \$33 billion) and reached \$47 billion in 2006 (table III.4), despite divestments in Latin America (ECLAC, 2008, box III.15). In transport, storage and communications, FDI stock in developing countries surged between 1990 and 2000, and continued to expand after the turn of the century, reaching a record \$152 billion by 2006. Investments in Asia and Africa during the period 2000–2006 grew much faster than in Latin America and the Caribbean; for example, in Africa investment more than doubled, to reach nearly \$13 billion in 2006 (table III.4).

As in the case of stocks, *FDI flows* to infrastructure in developing countries largely mirror global trends. For instance, in the *electricity, gas and water* industry, FDI flows to developing countries as a whole increased from around \$2.5 billion per annum in 1991–1995 to \$12 billion in 1996–2000, followed by a significant decline thereafter. In *transport, storage and communications*, FDI inflows into developing countries increased steadily, from \$4 billion per annum in 1991–1995 to \$13 billion in 1996–2000, and to \$16 billion in 2001–2006. This group of industries avoided the global decline in FDI flows in 2001–2006 due to a strong increase of such flows to Asia, and a more moderate increase to Africa. The continued rise of these two regions more than compensated for the decline in Latin America and the Caribbean.

Data on *cross-border M&As* of infrastructure companies in developing countries (figure III.4) supplement FDI data, as they cover a larger number of host countries. These figures broadly confirm the trends in FDI flows, and suggest that developing countries paralleled world cross-border M&A trends in infrastructure industries, including the peak level reached in the late 1990s

Box III.14. The largest cross-border M&A deals in infrastructure

Cross-border mega acquisitions,^a by way of reducing the number of large players and increasing the size of the remaining ones, are reshaping the global landscape of infrastructure industries. In the period 1991–2007, there were no less than 346 mega deals in those industries. Most of these transactions took place between TNCs headquartered in developed countries (annex table A.III.3). The acquisition of AirTouch (United States) in 1999, and of Mannesmann (Germany) in 2000 by Vodafone (United Kingdom), so far the two largest deals in the history of cross-border M&As, changed the configuration of the telecommunications industry, making Vodafone the largest company in the industry. The third largest transaction, France Telecom's acquisition of Orange (United Kingdom) in 2000, can be interpreted as a response by one of the main competitors of Vodafone to its huge concentration of market power. In electricity, similar trends took place in 2007, when Enel (Italy) acquired Endesa (Spain) and Iberdrola (Spain) bought Scottish Power (United Kingdom) (the 8th and 9th largest cross-border M&As in infrastructure) (annex table A.III.3). The airports industry also witnessed consolidation with the takeover of BAA (United Kingdom) by Grupo Ferrovial (Spain) in 2006. Some developing-economy TNCs also figure among acquirers, such as DP World (United Arab Emirates), Pacific Century (Hong Kong, China), and SingTel (Singapore), especially in industries in which those TNCs have aspired to become global players.

Source: UNCTAD.

^a Mega deals are transactions of \$1 billion or more.

(primarily because of deals in telecommunications). These trends were in part driven by changes in policies that privatized State-owned assets, especially in Latin America and the Caribbean,³⁴ and by private cross-border M&As, especially in Asia.³⁵

The dynamics of foreign investment commitments of TNCs in the infrastructure industries of developing countries – including FDI, non-FDI and combined forms (box III.11) – also confirm the overall trends outlined above: A rise, followed by a

Box III.15. Divestment by TNCs of infrastructure operations in developing countries

Some infrastructure TNCs have either exited or scaled down their operations in developing countries, especially in the electricity and water industry (box table III.15.1). For example, the Spanish water TNC, Agbar, has exited or scaled down its operations in Brazil, Uruguay, Argentina and Chile. In telecommunications, Verizon (United States) pulled out of the Dominican Republic in 2006 and out of Puerto Rico in 2007, selling its assets in both countries to América Móvil (Mexico). Telekom Malaysia left Africa, partly as a result of changes in its investment strategy with a refocus on Asia (Telekom Malaysia, 2004). In electricity, some United States and European companies have pulled out of developing countries. In 2002 and 2003, AES (United States) suffered major losses and exited from India and Uganda, in addition to selling its operations in the transition economies of Kazakhstan and Ukraine (Nazareth, 2008).

Box table III.15.1. Examples of divestment of TNCs in the water industry in Latin America and the Caribbean, 2002–2007

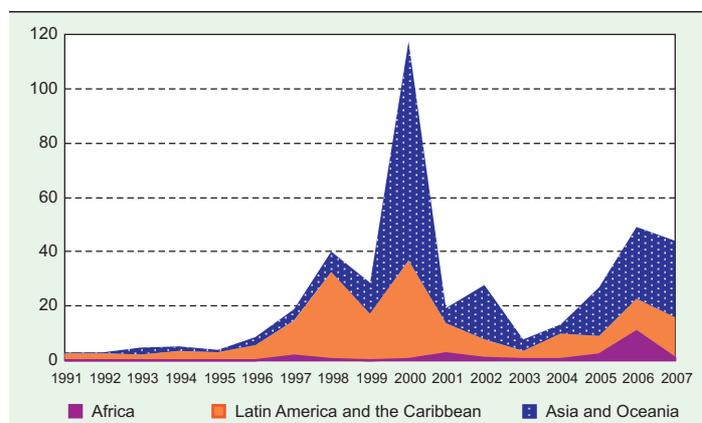
TNC	Home country	Contracts sold or terminated in host country	Year
Suez	France	Argentina (Buenos Aires)	2006
		Argentina (Santa Fé)	2006
		Bolivia (La Paz/El Alto)	2007
		Puerto Rico	2007
SAUR	France	Venezuela, Bolivarian Rep. of (Estado de Lara)	2002
Thames Water	United Kingdom	Chile (Concepción)	2006
Anglian Water	United Kingdom	Chile (Valparaíso)	2003
Aguas de Bilbao	Spain	Argentina (Buenos Aires)	2006
		Uruguay (Maldonado)	2005
Azurix	United States	Argentina (Buenos Aires)	2002
		Argentina (Mendoza)	2004
Aguas do Portugal	Portugal	Brazil (Rio de Janeiro State)	2007

Source: UNCTAD, based on Lobina and Hall, 2007.

The literature indicates that the main reasons for the exit of infrastructure TNCs reflect global and local strategic issues, such as a restructuring and consolidation of operations worldwide (e.g. many electricity companies are paying more attention to the significant infrastructure needs of developed countries, especially where these are their home economies); problems in the host countries, including unsuccessful renegotiations of contracts (usually arising from unforeseen events, such as the economic and financial crisis in Asia and other parts of the developing world in the late 1990s); and public opposition to TNC or private involvement in infrastructure (especially in electricity and water, e.g. in India and many parts of Latin America).

Source: UNCTAD.

Figure III.4. Cross-border M&A sales in infrastructure by developing target region, 1991–2007
(Billions of dollars)



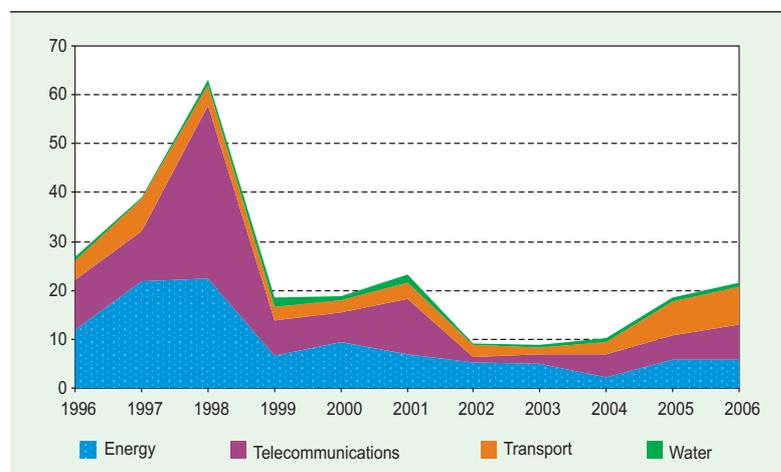
Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Note: The data cover only those deals that involved an acquisition of an equity stake of more than 10%.

significant fall, and then a partial recovery of TNC involvement in developing countries over the period 1996–2006, although with some differences in the peak years and the period of decline (figure III.5).³⁶

Most foreign investment commitments in the infrastructure industries of developing and transition economies during the period 1996–2006 were by developed-country TNCs. In electricity, France, Spain and the United States were the most important sources of commitments; in road projects, Spain dominated; while in water and sewage, France was the largest source country. In telecommunications, both developed and developing countries were important sources of commitments, led by France, Mexico and

Figure III.5. Foreign investment commitments in the infrastructure industries of developing and transition economies, by industry, 1996–2006
(Billions of dollars)



Source: UNCTAD secretariat calculations, based on data from the World Bank's PPI Database.

Note: See figure III.1.

Spain. Finally, in seaports, Hong Kong (China), a developing economy was the main source (annex tables A.III.6–8).

An analysis of the regional composition of *foreign projects* in infrastructure industries in developing and transition economies indicates that over the period 1996–2000, TNC commitments were concentrated in Latin America and the Caribbean. This region accounted for more than half of the total value of commitments in infrastructure in developing countries (table III.7, figure III.6). However, after the turn of the century, TNC commitments shifted away from Latin America and the Caribbean to Asia and Oceania, which became the largest recipient region (table III.7). Africa's share of foreign commitments almost tripled (to 30%), largely owing to investments in telecommunications. In spite of this increase, commitments fall far

short of the amounts needed to cover infrastructure investment needs. For instance, as a comparison, total TNC investment commitments in infrastructure in Africa during the *decade* spanning 1996–2006 were \$45 billion – an amount (even if fully realized) that is barely equivalent to Africa's current *annual* investment needs of \$40 billion (section A.2).

In terms of *industry composition* of foreign commitments in the infrastructure industries of developing and transition economies, telecommunications and energy have dominated. Together, they accounted for almost four-fifths of foreign commitments during the period 1996–2006. The share of transport infrastructure remained below

20%, despite its rise after 2000, and the share of water remained very low (less than 5%). Within transport infrastructure, roads and seaports were the most important sub-industries, while foreign commitments in the two other sub-industries – airports and railroads – were limited (table III.8).

There were major differences in the geographical composition of foreign commitments of individual infrastructure industries by developing and transition host regions. In the period 1996–2006, Latin America and the Caribbean was the largest recipient region, overall and in each industry (accounting for 52% of commitments), followed by Asia,

Table III.7. Foreign investment commitments in the infrastructure industries of developing economies, by industry and host region, 1996–2006
(Millions of dollars and per cent)

Region	Energy				Telecommunications			
	1996–2000		2001–2006		1996–2000		2001–2006	
	Value (\$ million)	Share in total of developing economies (%)	Value (\$ million)	Share in total of developing economies (%)	Value (\$ million)	Share in total of developing economies (%)	Value (\$ million)	Share in total of developing economies (%)
Africa	6 837	9.1	5 724	19.1	11 502	18.5	13 966	54.3
Asia and Oceania	20 532	27.4	10 652	35.6	4 957	8.0	9 678	37.6
Latin America and the Caribbean	47 688	63.5	13 544	45.3	45 755	73.5	2 063	8.0
Total for developing economies	75 057	100.0	29 920	100.0	62 214	100.0	25 707	100.0
<i>Memorandum items:</i>								
LDCs	1 314	1.8	3 256	10.9	3 878	6.2	2 517	9.8
South-East Europe and CIS	1 788	..	1 798	..	6 926	..	5 381	..
New EU members	2 108	..	11 871	..	19 836	..	1711	..
Region	Transport				Water			
	1996–2000		2001–2006		1996–2000		2001–2006	
	Value (\$ million)	Share in total of developing economies (%)	Value (\$ million)	Share in total of developing economies (%)	Value (\$ million)	Share in total of developing economies (%)	Value (\$ million)	Share in total of developing economies (%)
Africa	1 264	6.5	5 544	23.1	88	1.6	239	5.5
Asia and Oceania	6 091	31.1	8 691	36.3	1 753	31.6	2 383	55.0
Latin America and the Caribbean	12 232	62.4	9 723	40.6	3 709	66.8	1 708	39.5
Total for developing economies	19 587	100.0	23 957	100.0	5 549	100.0	4 330	100.0
<i>Memorandum items:</i>								
LDCs	557	2.8	1 460	6.1	30	0.5	2	0.04
South-East Europe and CIS	330	..	737	..	160	..	563	..
New EU members	287	..	4 604	..	1 398	..	239	..
Region	All infrastructure							
	1996–2000		2001–2006					
	Value (\$ million)	Share in total of developing economies (%)	Value (\$ million)	Share in total of developing economies (%)				
Africa	19 691	12.1	25 473	30.4				
Asia and Oceania	33 332	20.5	31 404	37.4				
Latin America and the Caribbean	109 383	67.4	27 038	32.2				
Total for developing economies	162 407	100.0	83 915	100.0				
<i>Memorandum items:</i>								
LDCs	5 778	3.6	7 234	8.6				
South-East Europe and CIS	9 203	..	8 478	..				
New EU members	23 628	..	18 424	..				

Source: UNCTAD secretariat calculations, based on data from the World Bank's PPI Database.

Note: See figure III.1.

Table III.8. Industry composition of foreign investment commitments in the infrastructure industries of developing and transition economies, 1996–2006

(Millions of dollars and per cent)

Infrastructure industry	Value (\$ million)	Share in foreign commitments to developing and transition economies (%)
All infrastructure	264 003	100.0
Energy	108 562	41.1
Telecommunications	100 229	38.0
Transport	44 611	16.9
Airports	5 669	2.1
Railroads	7 111	2.7
Roads	18 450	7.0
Seaports	13 381	5.1
Water and sewage	10 602	4.0

Source: UNCTAD secretariat calculations, based on data from the World Bank's PPI Database.

Note: See figure III.1.

Africa and South-East Europe and CIS, in that order (table III.7). In telecommunications, Africa received more commitments over the entire period than Asia, and the share of South-East Europe and CIS was only just short of Asia's, which was 15%. In water, Africa's share was minuscule compared to the other regions, at less than 1%, but appreciable in energy and transport.

Foreign commitments in particular infrastructure industries in developing regions have been concentrated in a handful of host economies. In electricity, for example, Brazil alone attracted 54% of the total foreign commitments in Latin America and the Caribbean in 1996–2006. During the same period, China accounted for almost one quarter of the Asian total, and Morocco was the largest recipient in Africa, with almost 50% of that region's commitments. There were similar patterns in other industries, with countries

such as Brazil, Chile, China, Ecuador, Egypt, Nigeria and Turkey among the largest recipients.

The *group of LDCs*, accounted for less than 1% of world FDI inward stocks in infrastructure in 2006 – and 2% of the FDI inward stocks of developing countries (table III.4). Their share of world FDI inflows in infrastructure also remained low (less than 5%). This marginal status is also confirmed by data on *foreign commitments*. LDCs attracted only 5% of the total foreign commitments in developing and transition economies over the period 1996–2006 (table III.9). The telecommunications industry was by far the largest recipient (accounting for almost half of total commitments to LDCs) (table III.9).

Table III.9. Industry composition of foreign investment commitments in the infrastructure industries of LDCs, 1996–2006
(Millions of dollars and per cent)

Infrastructure industry	Value (\$ million)	Share in LDC total (%)	Share of LDCs in foreign commitments to developing and transition economies (%)
All infrastructure	13 013	100.0	4.9
Energy	4 569	35.1	4.2
Telecommunications	6 394	49.1	6.4
Transport	2 017	15.5	4.5
Airports	208	1.6	3.7
Railroads	652	5.0	9.2
Roads	433	3.3	2.3
Seaports	724	5.6	5.4
Water and sewage	32	0.2	0.3

Source: UNCTAD secretariat calculations, based on data from the World Bank's PPI Database.

Note: See figure III.1.

In the period 1996–2006, developing countries accounted for a high proportion of foreign investment commitments in the transport and telecommunications industries of LDCs (table III.10), but they had virtually no investments in water and sewage. Overall, their share in total foreign investment commitments in infrastructure was higher in LDCs (almost 40%) than in all developing and transition economies (32%) (table III.10). This difference was particularly pronounced in transport, where, because of TNCs such as DP World (United Arab Emirates), investors from the South accounted for 65% of foreign investment commitments in LDCs (table III.10). In energy and telecommunications, their shares in foreign commitments in LDCs were almost as high

as they were in all developing and transition economies (table III.10).

Finally, turning to *modalities of foreign investment commitments* (legal forms), in *energy* – electricity and natural gas – concessions appear to have been the dominant form of TNC involvement in developing and transition economies during the period 1996–2006 (62%, figure III.6), especially BLO and BOO (box III.11), which together represented 35% of the number of investment projects. Other concessions represented 27% of the cases, while equity forms/FDI (privatizations/acquisitions and greenfield) together accounted for 36%. Management and lease contracts were marginal during the entire period.³⁷

In the *transport* infrastructure of developing and transition economies over the same period foreign participation was largely in the form of concessions: these alone accounted for 86% of the number of projects (figure III.6). Privatizations, the second most important form, accounted for less than one-tenth of the total. The dominance of concessions in transport worldwide has resulted in a proliferation of individual operators. This is particularly evident in ports,³⁸ where the majority of international players have expanded by winning new concessions, and only more recently, through M&As.

Telecommunications was the only industry among those covered in developing and transition economies, in which TNC involvement was largely through equity forms (figure III.6). Reflecting the importance of mobile telephony in developing countries, 67% of the investment projects registered in 1996–2006 were greenfield FDI projects, while privatization (mostly of fixed-line operations) accounted for only 16% of the cases of investment. In recent years, non-privatization M&As (which are not covered in the World Bank's PPI Database) have also been an increasingly important mode of

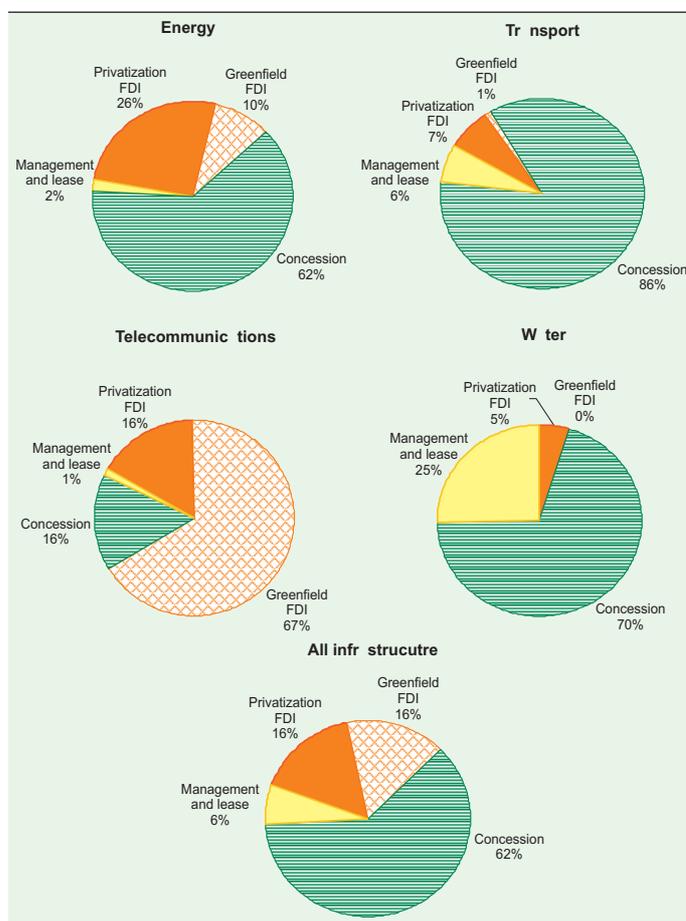
Table III.10. Sources of foreign investment commitments for the infrastructure industries of LDCs, and of developing and transition economies, 1996–2006
(Millions of dollars and per cent)

Infrastructure industry	Host region: LDCs			Host region: Developing and transition economies		
	Source of commitment		Share of developing economies (%)	Source of commitment		Share of developing economies (%)
	World	Developing economies		World	Developing economies	
All infrastructure	13 013	5 029	38.6	264 003	85 456	32.4
Energy	4 569	1 083	23.7	108 562	20 912	19.3
Telecommunications	6 394	2 629	41.1	100 229	46 701	46.6
Transport	2 017	1 317	65.3	44 611	16 376	36.7
Water and sewage	32	-	-	10 602	1 467	13.8

Source: UNCTAD secretariat calculations, based on data from the World Bank's PPI Database.

Note: See figure III.1.

Figure III.6. Main legal forms of foreign investment commitments in the infrastructure industries of developing and transition economies, by industry, 1996–2006
(Based on the number of projects; in per cent)



Source: UNCTAD secretariat calculations based on data from the World Bank's PPI Database.

Note: See figure III.1.

foreign market entry by TNCs in telecommunications (Curwen, 2005; Ure, 2008).

In the *water* industry, TNCs entered developing and transition economies mostly through concessions (70% of the projects, figure III.6). Management and lease contracts were also used frequently, reflecting pressure in some countries for public sector financing and owning infrastructure facilities (section A.3). In the water industry there were few instances of privatizations.

C. The universe of infrastructure TNCs

The universe of infrastructure TNCs is diverse: the firms have different characteristics by size, industry and geographical reach. This section focuses on the main corporate players and their key features, with special reference to dynamic changes

in the composition of these players, especially the rise of infrastructure TNCs from developing and transition economies. The analysis distinguishes between firms whose main activities are in infrastructure (infrastructure TNCs), and those for which it represents activities additional to their core business.³⁹

1. Major infrastructure TNCs

In 2006, the world's 100 largest infrastructure TNCs, ranked by foreign assets, was dominated by developed-country companies, and by three industries: electricity, telecommunications and transport (annex table A.III.4). However, there is also a significant presence of TNCs from developing and transition economies – much larger in fact (22 firms) than those in the list of the world's 100 largest TNCs in all industries (6). Moreover, in some sub-industries, such as ports, developing-economy firms – DP World (United Arab Emirates) and Hutchison Whampoa (Hong Kong, China) – are industry leaders, while in others, such as telecommunications, they are gaining in importance (table III.11).

Of the top 100 infrastructure TNCs, 78 were headquartered in a developed country, with the United States accounting for 14, Spain for 10, and France and the United Kingdom 8 each (table III.12). Among developing and transition economies, half of the 22 TNCs in the list were based in three Asian economies, Hong Kong (China) (5 firms), Malaysia (3) and Singapore (3). The internationalization of the top 100 infrastructure firms, as measured by the ratio of foreign to total assets, varied considerably: TNCs from Italy and the United States, for instance, had particularly low levels of internationalization, while the ratio was high among most other European Union-based firms. The industry composition of the top 100 infrastructure TNCs included 37 firms in telecommunications, 28 in electricity (with an additional 3 in electricity and water combined),⁴⁰ and 19 in transportation (table III.13). Eight of the largest infrastructure TNCs were active in more than one industry.⁴¹

In general, developed-country infrastructure TNCs are much larger than developing-country ones, and their foreign assets in particular tend to be much larger as well.⁴² Vodafone (United Kingdom) was the largest company in 2006, while Hutchison Whampoa (ranked 8th in the top 100) was both the

Table III.11. Largest TNCs in infrastructure industries, ranked by foreign assets, 2006
(Companies highlighted are based in developing or transition economies)

Rank	Electricity	Telecommunications	Transport	Water and sewage	Natural gas	More than one infrastructure industry
1	Electricité de France	Vodafone Group	Grupo Ferrovial	Veolia Environnement	Gaz de France	Suez
2	E.ON	Telefónica	Abertis	Grupo Agbar	Spectra Energy Corp.	Hutchison Whampoa
3	Endesa	Deutsche Telekom	AP Moller-Maersk	Waste Management Inc	Centrica	RWE Group
4	Vattenfall	France Télécom	DP World	Shanks Group	Gas Natural	Bouygues
5	National Grid	Vivendi Inc	China Ocean Shipping	Waste Services Inc	Transcanada Corp.	YTL Power
6	AES Corp.	Liberty Global Inc	Canadian National Railways Co.	Stericycle Inc	Enbridge Inc	Babcock & Brown Infrastructure
7	Fortum	TeliaSonera	Skanska	Hyflux Limited	Sempra Energy	Enka Insaat ve Sanayi
8	Duke Energy Corp.	SingTel	PSA International	Clean Harbors Inc	El Paso Corp.	NWS Holdings
9	EDP Energias de Portugal	Telenor	Hochtief	..	Hunting Plc	..
10	International Power Plc	Nortel Networks	Vinci	..	Williams Companies	..
11	CLP Holdings	KPN	Macquarie Airports	..	Hong Kong & China Gas Co.	..
12	Iberdrola	BT Group	Deutsche Bahn	..	Distrigaz 'D'	..
13	Unión Fenosa	Verizon Communications	Orient Overseas International	..	Canadian Utilities Ltd.	..
14	PPL Corp.	SES	Grupo ACS	..	Iwatani International Corp.	..
15	Atel - Aare Tessin	Telecom Italia	Obrascon Huarte Lain	..	..	..
16	Public Service Enterprise Group	América Móvil	Kansas City Southern	..	..	..
17	Keppel Corp.	Mobile Telecommunications Co.	Canadian Pacific Railway	..	..	..
18	Cofide-CIR Group	TDC A/S	First Group	..	..	..
19	Edison International	Portugal Telecom	BBA Aviation	..	..	..
20	Enel	Tele2	China Communications Construction Co.	..	..	..

Source: UNCTAD, based on annex tables A.III.4 and 5.

Table III.12. Foreign and total assets of the world's 100 largest infrastructure TNCs, by home economy and region, 2006
(Millions of dollars and per cent)

Home region / economy	Number of firms	Foreign assets		Total assets		Foreign assets as a share of total assets (%)
		Value	Share in total (%)	Value	Share in total (%)	
World	100	1 601 063	100.0	4 062 647	100.0	39.4
Developed economies	78	1 416 178	88.5	3 712 743	91.4	38.1
European Union	53	1 228 041	76.7	2 586 748	63.7	47.5
France	8	368 835	23.0	737 063	18.1	50.0
Germany	6	270 926	16.9	571 337	14.1	47.4
Spain	10	233 338	14.6	440 796	10.8	52.9
United Kingdom	8	185 705	11.6	301 174	7.4	61.7
Sweden	4	62 849	3.9	95 198	2.3	66.0
Denmark	2	18 562	1.2	68 965	1.7	26.9
Portugal	2	17 990	1.1	49 547	1.2	36.3
Italy	4	15 681	1.0	205 530	5.1	7.6
Luxembourg	3	15 501	1.0	15 656	0.4	99.0
Austria	2	2 971	0.2	17 302	0.4	17.2
Other European Union	4	35 683	2.2	84 181	2.1	42.4
Other developed economies	25	188 137	11.8	1 125 995	27.7	16.7
United States	14	119 079	7.4	948 638	23.4	12.6
Canada	6	34 230	2.1	100 402	2.5	34.1
Australia	3	13 638	0.9	45 740	1.1	29.8
Other	2	21 190	1.3	31 214	0.8	67.9
Developing economies	20	180 493	11.3	321 413	7.9	56.2
Africa	2	8 319	0.5	22 540	0.6	36.9
Latin America and the Caribbean	2	14 490	0.9	53 739	1.3	27.0
Mexico	2	14 490	0.9	53 739	1.3	27.0
Asia and Oceania	16	157 683	9.8	245 134	6.0	64.3
Hong Kong, China	5	84 663	5.3	116 771	2.9	72.5
Singapore	3	29 583	1.8	47 503	1.2	62.3
Malaysia	3	10 046	0.6	24 639	0.6	40.8
Kuwait	2	9 818	0.6	14 504	0.4	67.7
Other Asia	3	23 573	1.5	41 718	1.0	56.5
South-East Europe and CIS	2	4 392	0.3	28 491	0.7	15.4
Russian Federation	2	4 392	0.3	28 491	0.7	15.4

Source: UNCTAD, based on annex table A.III.4.

Table III.13. The world's 100 largest infrastructure TNCs, and the 50 largest infrastructure TNCs of developing and transition economies: industry breakdown, 2006
(Number of firms)

Industry	World	Developing and transition economies
Airports	2	1
Airports and roads	1	-
Electricity	28	10
Electricity and water	3	1
Natural gas	7	1
Railroads	5	-
Roads	6	8
Roads and electricity	1	1
Roads, electricity, water and seaports	-	1
Roads and telecom	1	-
Seaports	5	5
Seaports, electricity and telecom	2	1
Telecom	37	20
Water	2	1
Total	100	50

Source: UNCTAD, based on annex tables A.III.4 and 5.

largest developing-country infrastructure TNC and the largest infrastructure conglomerate overall (annex table A.III.4).

A separate list of the 50 largest infrastructure TNCs from developing and transition economies (referred to here as the top 50 developing-country infrastructure TNCs) by foreign assets shows a wide geographical spread in terms of home countries (annex table A.III.5). In 2006, no less than 16 home economies were represented in the top 50, with the largest number of firms headquartered in Malaysia (8), Hong Kong (China) (7), Singapore (6) and South Africa (5). By continent, Asia dominated (38 of the 50 TNCs). There were also notable differences in size among infrastructure TNCs headquartered in different

economies. Hong Kong (China), the home economy for Hutchison Whampoa accounted for 25% of the total assets and more than 40% of the foreign assets of the firms on the top 50 list.⁴³ Firms from Singapore and China were also large in terms of foreign and total assets, while Russian TNCs have exceptionally large total (but not foreign) assets due to the energy monopoly UES (annex table A.III.5, table III.14).

As noted above, developing-country TNCs were especially well present in seaports, road transport and telecommunications: they accounted for two-thirds of the total number of developing-country TNCs (table III.13). Only 11 firms in the list were involved in electricity and gas together, and only 1 firm was in the water industry.

A large number of infrastructure TNCs have mixed private-public ownership. This reflects the fact that a number of major TNCs have roots in publicly owned domestic entities,⁴⁴ some of which were partly or wholly privatized prior to internationalizing.⁴⁵ In developed countries in the past this was especially the case in electricity and water, but less so in telecommunications and transport in which private firms were established and active at the outset. In contrast, many developing-country infrastructure firms, which later became TNCs, were established to support economic development at home, and therefore honed their competitive advantages in this process. Whether they are SOEs or private companies often reflects the endowments and strategies of their respective home economies. For example, infrastructure TNCs from Hong Kong (China) are private companies, whereas many from Singapore are SOEs.

Table III.14. Foreign and total assets of the 50 largest infrastructure TNCs of developing and transition economies, by home country and region, 2006
(Millions of dollars and per cent)

Home region / economy	Number of firms	Foreign assets		Total assets		Foreign assets as a share of total assets (%)
		Value	Share in total (%)	Value	Share in total (%)	
Total	50	196 542	100.0	499 267	100.0	39.4
Developing economies	47	191 636	97.5	412 298	82.6	46.5
Africa	7	9 880	5.0	35 236	7.1	28.0
South Africa	5	5 051	2.6	25 747	5.2	19.6
Egypt	2	4 829	2.5	9 490	1.9	50.9
Latin America and the Caribbean	2	14 490	7.4	53 739	10.8	27.0
Mexico	2	14 490	7.4	53 739	10.8	27.0
Asia and Oceania	38	167 267	85.1	323 323	64.8	51.7
Hong Kong, China	7	85 699	43.6	124 714	25.0	68.7
Singapore	6	31 041	15.8	53 039	10.6	58.5
China	2	11 560	5.9	34 969	7.0	33.1
Malaysia	8	11 236	5.7	30 118	6.0	37.3
Kuwait	2	9 818	5.0	14 504	2.9	67.7
Turkey	3	4 134	2.1	13 260	2.7	31.2
Korea, Republic of	2	1 344	0.7	23 601	4.7	5.7
India	3	691	0.4	7 803	1.6	8.9
Thailand	2	273	0.1	2 185	0.4	12.5
Other Asia	3	11 471	5.8	19 131	3.8	60.0
South-East Europe and CIS	3	4 906	2.5	86 969	17.4	5.6
Russian Federation	3	4 906	2.5	86 969	17.4	5.6

Source: UNCTAD, based on annex table A.III.5.

Interestingly, infrastructure TNCs from the North and the South are competing head-on in international markets (table III.11), including in developing countries, and it is important for governments to understand their relative advantages and disadvantages (section D).

2. Major infrastructure investors in developing countries by industry

The composition of the universe of infrastructure TNCs investing in developing economies varies by industry. The analysis in this section focuses on the main features of investors in individual infrastructure industries, concentrating on the period 1996–2006.

The global *electricity industry* has been and still is dominated by TNCs from developed countries, because of their technological advantages as well as financial, technical, project management and other expertise. The world's largest electricity TNCs in terms of foreign commitments in developing countries are primarily from Europe and the United States (annex tables A.III.6–8). The consolidation of the electricity industry in Europe through M&As has led to the emergence of a few very large electricity firms known as the “Seven Brothers” (EDF, Electrabel, Endesa, Enel, E.ON, RWE and Vattenfall), all of which are active international investors (IEA, 2003).⁴⁶ In North America, electricity firms such as AES, American Electric Power and TransAlta are also investing abroad. In general, cross-border M&As are a preferred strategy for consolidating an international presence in electricity. M&As in electricity have soared in recent years, both in terms of volume and magnitude of deals, reflecting the trend towards industry consolidation (PricewaterhouseCoopers, 2006). Cross-border M&As in electricity are concentrated in Europe, the United States and developing Asia.⁴⁷

TNCs' participation in the global electricity industry has evolved substantially, reflecting changing policies, market opportunities and corporate strategies over the years. The increasing trend towards PPPs in the provision of electricity services is an example, as is the emergence of new players, such as independent power producers in developing countries (ECA and UNEP, 2007). In addition, some technology providers have moved up the value chain and become producers and suppliers of electricity themselves. For example, technology suppliers such as Suzlon (India) and Alstom (France) are beginning to compete with traditional utilities in developing countries for transmission and distribution activities (Gils et al., 2007; Nazareth, 2008). In addition, government policies aimed at encouraging the use of

renewable energy in power generation have prompted some equipment suppliers, such as GE, Siemens and Westinghouse, to become producers and suppliers of electricity (Ernst & Young, 2006).

Although developed-country TNCs are the largest players in the electricity industry, including in developing countries, most remain regional entities, with a significant proportion of their revenues generated from, and assets located within, their home regions.⁴⁸ Thus there is considerable scope for developing-country TNCs in this industry to invest abroad, and indeed several of them, particularly those from Brazil, India, Malaysia, Singapore and Thailand, have begun doing so in recent years. Some of them have seized on the opportunity of openings created by the withdrawal of some developed-country TNCs from developing-country markets (Tenenbaum and Izaguirre, 2007). Their expansion, mainly to other developing countries, is thereby strengthening South-South cooperation in electricity infrastructure development, especially in Asia.⁴⁹

In *telecommunications*, most of the largest investors in developing and transition economies are headquartered in developed economies, especially in Europe. Telefónica (Spain), France Telecom (France) and América Móvil (Mexico), in that order, had the largest investment commitments in developing countries in 1996–2006, followed by Telmex (Mexico), Vodafone (United Kingdom) and Deutsche Telekom (Germany) (annex tables A.III.6–8). In addition to infrastructure TNCs, some of the major investors in telecommunications in developing countries are banks, such as Bank of America (United States), and conglomerates from current-account-surplus developing countries, such as the Abu Dhabi Group or Dubai Holding. The geographical spread of telecommunications TNCs often reflects considerations of geographical or cultural proximity (such as the Latin American investments of América Móvil and Telefónica) (Gerpott and Jakopin, 2007), or a combination of technological considerations and first-mover advantages, as with the largest mobile operators in Africa (Curwen, 2005; box III.16).

The structure of the telecommunications industry is changing both globally and in developing countries as a result of mega mergers or as some TNCs sell off foreign assets to new players. It is notable that the 7 largest M&A deals in infrastructure industries between 1991 and 2007 all took place in telecommunications, amounting to a total of \$437 billion (annex table A.III.3).⁵⁰ The main sell-off of affiliates by TNCs took place in Latin America and the Caribbean, where United States TNCs such as BellSouth, Verizon and AT&T, sold their assets to local and regional players (ECLAC, 2008; box III.15). Mexico's América Móvil and Telmex have been the most active in this restructuring of the

Box III.16. The entry of TNCs in the mobile telephony market in Africa

In recent years, Africa has experienced a “mobile revolution”. The continent had about 190 million mobile subscribers in 2006 following an annual growth rate of 46% in subscribers between 2001 and 2006; and mobile penetration had reached 22%, in comparison to 29% in Asia, for example. In 2001, mobile phones overtook fixed telephone lines, and now outnumber fixed lines by nearly seven to one.

TNCs have contributed substantially to this rapid market growth. Among the top 10 mobile operators in Africa in terms of national subscribers, 8 of them are foreign affiliates (box table III.16.1). MTN in Nigeria, Djezzy GSM in Algeria and Mobinil in Algeria are affiliates of operators headquartered in other African countries, highlighting a strong South-South (especially intraregional) feature of FDI flows in Africa’s mobile telephony market.

Box table III.16.1. Top 10 mobile operators in Africa, ranked by number of local subscribers, 2006

Rank	Operator	Host country	Parent company (equity share)	Home country	Total subscribers	Revenues (\$ million)
1	Vodacom	South Africa	Vodafone (50%)/Telkom (50%) (local)	United Kingdom	21 800	2 661
2	MTN	South Africa	Local	South Africa	12 483	2 859
3	MTN Nigeria	Nigeria	MTN (100%)	South Africa	12 281	2 053
4	Glo Mobile	Nigeria	Local	Nigeria	11 000	..
5	Maroc Télécom	Morocco	Vivendi (53%)	France	10 707	1 627
6	Djezzy GSM	Algeria	Orascom Telecom (100%)	Egypt	10 531	1 531
7	Mobinil Egypt	Egypt	France Télécom (Orange) (71%)/Orascom Telecom (29%) (local)	France	9 267	1 114
8	Vodafone Egypt	Egypt	Vodafone (100%)	United Kingdom	8 704	1 243
9	Mobinil Algeria	Algeria	France Télécom (Orange) (71%)/Orascom Telecom (29%)	France/Egypt	7 476	..
10	Celtel Nigeria	Nigeria	Zain Group (100%) ^a	Netherlands ^b	6 400	1 381
Total of Africa					110 649	14 469

Source: UNCTAD, based on ITU 2007a and company reports.

^a Previously MTC Group.

^b Celtel is an affiliate of Zain Group (Kuwait).

Source: UNCTAD.

regional industry.⁵¹ Of developed-country TNCs, only Telefónica (Spain) followed suit with the acquisition of BellSouth’s mobile telephony operations in Latin America in 2004–2005.

In *transport infrastructure*, in addition to major transport TNCs, such as Bouygues (France), Grupo ACS (Spain) and Hopewell Holdings (Hong Kong, China), a number of leading investors in developing countries are from related industries such as electronics (e.g. Siemens, Germany) (annex tables A.III.6–8). Since transport is also a very diverse industry, it is necessary to analyse it by sub-industries (i.e. roads, airports, seaports and railroads).

In *airports*, developed-country firms dominate. Many are affiliates of larger groups, mostly from developed countries (annex tables A.III.6–8). British Airport Authority⁵² (United Kingdom) has been by far the most active in developing and transition economies, especially during the period 2001–2006. Also significant in terms of investment commitments are Fraport (Germany), Copenhagen Airport⁵³ (Denmark), and ACS Group, the largest Spanish construction TNC. Developing-country TNCs, such as Bidvest Group (South Africa), Senai Airport Terminal Services (Malaysia) and Airport Authority of Hong Kong, also increased their commitments in developing countries in 2001–2006.

In *railways*, too, developed-country TNCs had the largest share of foreign commitments in developing countries over the period 1996–2000.⁵⁴ In 2001–2006,

however, a developing-country TNC, Mass Transit Railway Corporation (Hong Kong, China) became the largest investor.⁵⁵ In Africa specifically, railway concessions have often involved partners from the South (Bullock, 2005).⁵⁶

In *road infrastructure* in developing countries, large European firms, such as OHL (Spain), SyV (Spain) and Impregilo (Italy) have dominated investments. However, a significant number of Asian and Latin American firms, such as ICA (Mexico) and Cheung Kong Infrastructure Holdings (Hong Kong, China), also made substantial investment commitments during the period 1996–2000.⁵⁷ In addition, a new batch of TNCs from the South, including Odebrecht (Brazil) and MTD Capital (Malaysia), emerged in this area during this period.

In *seaports*, TNCs from the South are world leaders, and compete with their developed-country counterparts on a global scale. As noted above, Hutchison Whampoa is the largest investor worldwide, and DP World and PSA (Singapore) are among the top four (annex table A.III.4).⁵⁸ In terms of total physical capacity (throughput) worldwide, rankings are similar (table III.15), although the capacity of PSA exceeds that of DP World. The industry structure is also highly concentrated, with the four largest operators in seaports together responsible for almost half of global throughput (table III.15).

Today, most of the world’s large port operators are TNCs specialized in this sub-industry. This is quite

Table III.15. Major port operators, ranked by their share in world container port throughput, 2006
(Millions of TEU^a and per cent)

Ranking	Operators	Home economy	Throughput (million TEU) ^a	Share in world total (%)
1	Hutchison Port Holdings	Hong Kong, China	61	13.8
2	APM Terminals ^b	Netherlands	52	11.8
3	PSA	Singapore	47	10.7
4	DP World	United Arab Emirates	42	9.4
5	Cosco	China	22	5.0
6	Eurogate	Germany	12	2.7
7	Evergreen	Taiwan Province of China	9	2.1
8	MSC	Switzerland	9	2.0
9	SSA Marine	United States	8	1.7
10	HHLA	Germany	7	1.5

Source: UNCTAD, based on Drewry, 2007.

^a Twenty-foot equivalent unit.

^b Affiliate of AP Moller-Maersk (Denmark).

different from a decade ago, when most terminals were operated by ocean carrier TNCs seeking to secure dedicated terminal facilities for their ships.⁵⁹ This shift towards greater specialization has taken place because port operators now require more specialized knowledge and skills in terminal operations in the context of extensive trade expansion and growing competition. This competition has come mainly from new individual terminal operating companies in response to the spread of port concessions worldwide. However, apart from DP World, the majority of new entrants in the industry are small individual port operators that, having matured in their own economies, are seeking new opportunities abroad (e.g. the Irish Port of Dublin is partnering with Sabang Port in Indonesia).

In *water and sewage*, a few very large European TNCs, such as Veolia (France), Agbar (Spain), Suez (France) and RWE (Germany), dominate investment commitments in developing countries (annex tables A.III.6–8). TNCs in the water industry, such as Suez, RWE and EVN (Austria), often combine water and sewage with electricity services.

The shares of the largest (top 5 and top 10) investors in individual infrastructure industries in developing and transition economies fell in 2001–2006 – with the exception of transport – although from very high initial levels of concentration in the late 1990s (table III.16). For example, in 1996–2000, the 5 largest investors in the water industry⁶⁰ accounted for almost 75% of the total foreign commitments in

developing and transition economies, but by 2001–2006, their share had declined to less than 50% of the total.⁶¹

3. South-South investors in developing countries

TNCs from the South are undertaking more foreign investment commitments in other developing regions (table III.17), and especially in LDCs (section C.2), although developed-country TNCs still remain the largest investors. In Africa, the bulk of investment commitments still originate in developed countries, except, notably, in telecommunications. Moreover, 19 of the top 50 investment commitments in infrastructure in Africa are by TNCs from the South. Regional proximity seems important: 9 are headquartered in West Asia, and most of the others (8) in other African countries, especially South Africa and Egypt (annex table A.III.6). The second largest investor in the region, MTC (Kuwait)

Table III.16. Share of the top 5 and top 10 investors in total foreign investment commitments in infrastructure industries in developing and transition economies, 1996–2006
(Per cent)

Industry	Top 5		Top 10	
	1996–2000	2001–2006	1996–2000	2001–2006
Electricity	35.4	29.9	50.7	42.9
Telecom	58.7	48.0	75.6	69.4
Transport	27.0	31.0	42.2	46.2
Water	73.7	45.5	85.6	65.4

Source: UNCTAD's calculations, based on data from the World Bank's PPI Database.

Note: See figure III.1.

Table III.17. Origin of foreign investment commitments in the infrastructure industries of Africa, Asia and Oceania and Latin America and the Caribbean, 1996–2006
(Per cent)

Host region/industry	Developed economies	Developing economies	Transition economies
Africa total	60.8	39.1	0.1
Energy	91.3	8.5	0.2
Telecom	42.0	58.0	-
Transport	82.1	17.9	-
Water	100.0	-	-
Asia and Oceania total	57.1	42.8	0.1
Energy	78.7	21.3	-
Telecom	24.1	75.7	0.2
Transport	43.5	56.1	0.4
Water	76.0	24.0	-
Latin America and the Caribbean total	83.9	15.7	0.4
Energy	92.3	7.7	-
Telecom	73.6	25.3	1.1
Transport	85.6	14.4	-
Water	97.6	2.4	-

Source: UNCTAD's estimates, based on data from the World Bank's PPI Database.

Note: See figure III.1.

– renamed Zain in 2007 – is a developing-country firm, and the fourth largest is an intraregional investor (MTN of South Africa). The list includes not only large TNCs, but also intraregional niche investors, such as Trans Century (that invests in transport in Kenya) and Econet Wireless (that invests in telecommunications in Botswana).

In Asia, South-South investment commitments – especially intraregional – are very significant, reflecting the dominant position of the region's firms in the top 50 developing-country infrastructure TNCs. These TNCs account for over 40% of the total foreign investment commitments in the region, and for 56–76% in telecommunications and transport (table III.17). China Light and Power (Hong Kong, China) is the largest investor in terms of commitments registered in 1996–2006 (annex table A.III.7). Of the top 50 investors, more than half (27 firms) were from developing countries, and half (25 firms) were from developing Asia, with TNCs from Hong Kong (China) (9 firms) and Malaysia (5 firms) being the most active.

In Latin America and the Caribbean, the role of developing-country investors has been more limited. Of the total foreign commitments, developing-country TNCs accounted for less than 20% in infrastructure industries on average. Their most significant investments were in the telecommunications industry. Of the 50 foreign firms with the largest commitments in 1996–2006, only 7 originated from developing countries (annex table A.III.8).

D. Competitive advantages, drivers and strategies of infrastructure TNCs

Although a number of today's major infrastructure TNCs have operated overseas for many decades, most have internationalized only since 1990 (section C). TNCs internationalize in order to increase their profitability and/or protect their capital value. Whether they internationalize, in what forms (e.g. through FDI or management contracts) and where (e.g. in nearby countries or further afield) depends on a number of factors. Among the most important are, first, the possession of competitive advantages, which enables them to compete with other firms, including in the host economy;⁶² second, there must be location-specific reasons why a TNC chooses to operate in a particular host economy, rather than another one (or in the home country); and finally, the relative costs of a TNC internalizing and managing an operation in a host country, as opposed to selling the knowledge of how to do this to a local firm, which determines its modality of participation in a foreign market.⁶³

With these factors in mind, this section discusses the competitive advantages possessed by infrastructure TNCs, and then examines what drives and motivates these companies to internationalize. The overall aim of the section is to understand the patterns of TNC participation in infrastructure in developing countries, including geographical and industrial dispersion and entry modalities, as well as potential future developments. The analysis below is based on an UNCTAD survey of infrastructure TNCs (box III.17), as well as literature on their internationalization.

1. Sources of competitive advantages

Sources of TNC competitiveness can be firm-specific advantages (FSAs) or non-firm-specific advantages.⁶⁴ Firm-specific advantages include technologies or brands owned or possessed by the firm, or other advantages enjoyed by the firm because of external factors, for example, as a result of privileged access to cheap capital in the home economy. There are four categories of FSAs: technology and expertise, production and service capabilities, business models and forms of governance. Each of these is explained below in the context of the results of the UNCTAD survey of infrastructure TNCs.

- Advantages based on *ownership or possession of technology and expertise* are the most commonly cited in the TNC literature. They include proprietary technology and expertise arising from sustained investment in R&D and other capabilities or resources. For infrastructure TNCs responding to the survey, only a little over a third (37%)⁶⁵ of competitive advantages fell into this category. However, there is a big difference in responses by the origin of TNCs. The majority of FSAs mentioned by developed-country TNCs (61%) fell into this category. Among developing-country TNCs, only 12% of the FSAs were related to technology and expertise. There were also differences by industry. Nearly all responses by TNCs in the water industry were FSAs of this type,⁶⁶ as were 43% of advantages mentioned by electricity companies. Most of the ownership advantages mentioned arise not from product technology or brands, but rather from various types of embedded expertise. This was the case for both developed and developing countries. Companies mentioned, among others, expertise in network design and operation, engineering skills, environmental know-how, financial techniques, and project management capabilities. This underscores the nature of infrastructure industries, where the ability to manage complex networks of activities is generally more important than possessing state-of-the-art technology per se.

Box III.17. UNCTAD survey of infrastructure TNCs

UNCTAD conducted a global questionnaire-based survey of infrastructure TNCs during April-May 2008, in which executives answered detailed questions on a range of issues, including competitive advantages possessed by respondent companies, as well as their motives, strategies, international operations and attitudes towards home- and host-country policies. A sample of 175 major infrastructure TNCs was constructed based on a number of databases, focusing on larger TNCs in each industry and those with significant levels of involvement in developing and transition economies. Other TNCs with infrastructure interests were excluded. Care was taken to ensure that the sample of companies reflected the overall population of infrastructure TNCs (section C). The response rate was 22% (38 companies), and was broadly representative of the sample and population of infrastructure TNCs. By industry, 18 were in the telecommunications industry, 12 in electricity, 6 in transport and 2 in water; transport was slightly underrepresented. All of the major home economies were represented, including Australia, France, Japan, the Netherlands, Spain, Sweden and United States among developed economies; and Brazil, China, Hong Kong (China), India, Malaysia, Mexico, the Republic of Korea, Singapore, South Africa, Turkey and the United Arab Emirates among developing economies. Several companies were SOEs, in keeping with the significant number of such TNCs in infrastructure industries. As a whole, infrastructure TNCs in the survey sample were large, with average overall sales of \$15 billion (some are much larger), and they employed an average of 39,000 people. The average number of people employed overseas was high, at nearly 9,000, reflecting considerable international involvement, including in nearby countries. With regard to international orientation, on average, responding companies were active in 4.6 host economies.

Source: UNCTAD.

- *Production and service capabilities* derive from specialization in segments of industries or from a particular focus on certain aspects, such as ensuring minimum costs or customer orientation. Unlike the previous category of FSA, such advantages do not necessarily derive from embedded industry-level expertise; rather, they depend on factors such as scale or network coverage maximization, cost-consciousness, or flexibility and fast response (all of which were mentioned by respondents).⁶⁷ A significant proportion of infrastructure TNCs – proportionally more from developing countries – indicated that they possessed production and service capabilities (23% of all advantages mentioned). Such capabilities are important for all industries, especially telecommunications, and 30% of FSAs were in this category. This is not surprising, given that many telecommunication operators do not possess fundamental technology, but rather focus on its exploitation (Ingelbrecht, 2008).
- *Business models* include FSAs associated with the development and exploitation of relationships, including with suppliers and customers. About 15% of infrastructure TNCs in the survey mentioned FSAs in this category, including reliable partnerships worldwide and strong and well-organized marketing channels. Telecommunications are well represented in this group because of the importance of the retail segment in this industry, and the use of various innovative approaches to selling services to relatively poor customers (e.g. the approach taken by Reliance Communications). A large number of TNCs also mention their financial structure and strength and large cash flows as FSAs, especially in telecommunications, which are important for fostering rapid expansion and gaining market share. In the survey, TNCs were asked to cite their primary source of international investment finance: all telecommunications firms indicated that the preponderance of investment was from internal cash flow, sometimes up to 100%. In some cases, financial strength also signifies a strong, perhaps monopoly, position in the home economy, which allows infrastructure TNCs to invest some of their profits at home and overseas. In the case of all infrastructure TNCs in the survey apart from telecommunications, a sizeable share of their investments (or a particular investment) – about 20–30% – was financed from internal resources, primarily generated from profits in the home economy.⁶⁸ An important consequence of the financial prowess of infrastructure TNCs is the acquisition of created assets, an issue taken up further in section D.2.
- *Forms of ownership and organization*, including its organizational culture or whether a TNC is State-owned, represent 10% of FSAs mentioned in the survey. TNCs mainly stressed the extent to which organizational culture made companies flexible or open to new ideas, which were seen as conducive to business, especially in transport and telecommunications.
- *Non-FSA advantages*⁶⁹ can derive from a number of sources, including home country endowments, home government policies, or some specific relationship with the host country. Some 18% of competitive advantages mentioned could be categorized as non-firm-specific, ranging from access to capital (especially in countries with trade surpluses) to good working knowledge of developing host economies (particularly where the TNC is from a neighbouring country or already has operations in similar economies). Other non-FSAs mentioned by respondent TNCs included

experience of liberalization in the home economy (providing useful lessons for entry into host economies undergoing similar experiences).

As the survey indicates, competitive advantages of companies differ by industry. Competitive advantages in the *water industry* are mostly intangible and difficult to develop and sustain. This explains why nearly all TNCs in this industry with significant international investments – such as Agbar (Spain), Suez (France), RWE (Germany) and Veolia (France) – are long-established companies (some founded in the nineteenth century), and continue to invest considerable amounts in specialist technology and network expertise (Pinsent Masons, 2007; Singh, 2008; Hall and Lobina, 2007). There are very few significant developing-country TNCs in the water industry, apart from Hyflux (Singapore) and YTL (Malaysia) (table III.11); and both are far smaller than their developed-country equivalents.

In contrast to water, *telecommunications* has largely shed its natural monopoly characteristics (section A), primarily because of rapid technological change.⁷⁰ Moreover, unbundling in this industry is along the entire value chain, and competitive assets or advantages can now be created or acquired relatively easily. However, these advantages can seldom be retained in the long term, even by incumbents.⁷¹ These developments have facilitated the rise of new players, including developing-country TNCs, as observed in section C. In the survey, telecommunication TNCs – especially those from developing countries – indicated frequently that their FSAs derived from production and service capabilities or business models, rather than ownership of proprietary technology or expertise. This wide range of competitive advantages, along with more opportunities along the value chain and a high level of liberalization in most countries, have led to more telecommunications TNCs featuring among the top 100 infrastructure TNCs than those in any other industry (section C),⁷² of which about a quarter are headquartered in developing countries. However, incumbency does matter to some degree, and most foreign participation by developing-country TNCs is in the form of South-South involvement, since their competitive strengths are largely insufficient to compete as yet in developed country markets.⁷³ The largest developing-country TNC in telecommunications, Singtel (Singapore), is still far smaller (and possesses fewer competitive advantages) than industry leaders such as Vodafone, France Telecom, Verizon Communications and Telefónica, which continue to dominate developed-country markets.

The situation in electricity and transport is somewhere between that in telecommunications and water. In *electricity*, as with the water industry, there are some benefits to incumbency, and long-term network experience remains important. However,

innovation, especially in upstream segments of the value chain such as power generation, has resulted in considerable unbundling and entry by domestic private companies and TNCs (section A above; and Woodhouse, 2006).⁷⁴ In addition, the pivotal role of power in fostering industrial development has encouraged massive investment in the industry by both State and private enterprises, resulting in some developing-country electricity firms gaining extensive production capabilities. A few well-established TNCs, such as Eskom (South Africa) and KEPCO (Republic of Korea) have also acquired proprietary technologies.⁷⁵ Nevertheless, to date, advantages and expertise gained by these companies have been insufficient for them to expand much beyond their home regions or compete head-to-head with developed-country counterparts. Thus, of over 30 electricity TNCs in the top 100, only 3 are from developing countries (section C).⁷⁶ CLP (Hong Kong, China), the largest developing-country TNC had overseas assets of \$6 billion in 2006, well short of the \$112 billion of the largest TNC, EDF (France) (section C).

As with electricity, TNCs in *transport infrastructure*, especially those in roads and ports, have grown in the context of an immense expansion in international trade.⁷⁷ As a result, primarily as a consequence of “learning-by-doing”, TNCs from both developed and developing countries have acquired considerable FSAs related to production and service capabilities. In addition, the concentration of export-orientated industrialization in a few developing countries over the past few decades has encouraged the emergence of a number of large, competitive players in transport (section C). The competitive advantages of both developed- and developing-country TNCs engaged in port activities consist of managerial and operational expertise in running terminal operations efficiently and effectively; and the largest also benefit from client loyalty fostered by global portfolios of facilities, services and customers (Olivier et al., 2007; Drewry, 2007; UNCTAD, 2007h; Valentine, 2008). Developing-country TNCs engaged in ports are making inroads into developed countries (e.g. the acquisition of P&O Ports (United Kingdom) by DP World (United Arab Emirates) in 2006). However, as with other sub-industries in transport (e.g. intraregional transport networks), most of the emerging opportunities are in other developing countries. More particularly in the case of ports, the main global shipping lanes run east-west, and connections to developed countries are already well served. Furthermore, changing global patterns of production and trade are encouraging further links to the South, especially to Africa and South America.

The significant variations in types of FSAs by industry, as a consequence of differing patterns of corporate origin and evolution in each industry, also manifest themselves at other levels, such as size

and ownership (state versus private). Particularly significant, as indicated above, is whether a TNC is from a developed or developing country. Overall, developed-country TNCs are much more likely to possess competitive advantages derived from ownership of technology and expertise. These are often built up over the long term, and are characteristic of industries such as electricity and water. In contrast, FSAs of developing-country TNCs generally relate to production and service capabilities and novel business models – key characteristics, among others, of sub-industries within telecommunications and transport, such as mobile telephony and seaports.

Competitive advantages can ultimately be eroded, though the rate of this varies by industry. In the survey, the majority of infrastructure TNCs reported undertaking R&D and innovation in order to upgrade their FSAs. Nearly all of the sample companies backed up their FSAs in management and environmental quality standards with ISO 9001 and 14001 certification,⁷⁸ while some had specific quality certification from the Occupational Health and Safety Advisory Service (OHSAS 18001 for safety) and EMAS (eco-management and audit scheme). Two of them had ISO 27001, which relates to security issues.

2. Drivers, motives and modalities of infrastructure TNCs

a. Drivers and motives

Drivers are factors that trigger a company's internationalization or further expansion, while its motives (e.g. market-seeking versus efficiency-seeking) often determine the specific outcome. The drivers most mentioned by almost 100% of infrastructure TNCs in the UNCTAD survey are closely tied to market-related factors, especially in host countries. Therefore drivers and motives are treated together in this section.

Home country drivers. Infrastructure TNCs in the UNCTAD survey most frequently mentioned that liberalization of the industry in the home country led them to further exploit their competitive advantages in foreign markets in a number of ways. First, a number of TNCs decided to internationalize because the home economy offered few growth opportunities (e.g. because the home market was "mature"), or in order to use expertise and know-how where opportunities might be available ("worldwide development with no boundaries"), or because of a desire for diversification (i.e. to reduce overdependence on the home economy). Second, a few TNCs also opted to internationalize as competition had started to cut into their home market share after government liberalization policies encouraged market entry by domestic and foreign

companies. In some cases, infrastructure TNCs improved their FSAs against the competition posed by foreign TNCs in the domestic market prior to their own internationalization; good examples are Indian TNCs in telecommunications (Nazareth, 2008).

Although mentioned by only a few companies, technological changes, especially in telecommunications and electricity, which create new possibilities for competition at home and abroad, are also widely viewed as key drivers in the internationalization of infrastructure TNCs (Ramamurti and Doh, 2004; Clifton, Comin and Diaz-Fuentes, 2007; Minges, 2008). Overall, infrastructure TNCs from many developed and developing countries, including Brazil, China, France, India, the Republic of Korea, Singapore, South Africa, Sweden, Thailand, Turkey, the United Arab Emirates and the United Kingdom, reported that their home Governments actively supported or encouraged their overseas investments.

Host country drivers. Host country market-related factors were more frequently mentioned by TNCs in the survey than home country drivers, and by virtually every company. In particular, TNCs mentioned market-pull opportunities arising from: (a) liberalization and deregulation, leading to business opportunities, including acquisitions (e.g. China's entry into the World Trade Organization (WTO) was seen as highly significant by a number of infrastructure TNCs); (b) tenders from governments for new infrastructure development (e.g. facilities in South Africa for the 2010 World Cup); (c) strategic acquisitions of created assets, in nearly all cases facilitating entry into new markets (e.g. recent acquisitions by Indian telecommunications TNCs of submarine cables and other assets from various companies); (d) following clients in the infrastructure business (e.g. ports developments linking into transportation networks being established in Latin America); (e) regional growth opportunities and the realization of economies of scale (a common motive for many infrastructure TNCs, except those in the water industry); and (f) other market-related motives, such as targeting central and local governments in offering solutions, for example for energy efficiency or water purification (including advisory services).

Motives less frequently mentioned included, labour cost reduction, the achievement of synergies (e.g. with other businesses of the company), as well as the possibility of gaining experience and knowledge, and establishing good relations with clients such as local municipalities. This last set of motives was mentioned more by electricity and water companies.

The primacy of the host country market as a motive for infrastructure TNC involvement in developing economies creates significant obstacles

for LDCs, which almost by definition have small markets, both in general and in infrastructure industries more specifically. However, some infrastructure TNC involvement in LDCs does occur, despite market limitations, for strategic reasons (discussed below) or because companies – often but not exclusively from the South – have spotted niches that others have missed (e.g. Reliance Communications (India) in Uganda or Millicom’s (Luxembourg) LDC orientation).

Country- or region-specific market factors influence the location of TNCs by industry. For example, liberalization with respect to existing infrastructure, such as water and electricity utilities, were a major driver for inward investment and other forms of involvement in Latin America (and a number of other markets) in the 1990s. And the installed base of such infrastructure facilities remains a significant pull factor, especially for companies specializing in operation and maintenance activities.

Another pull factor since the 1990s has been the demand for new infrastructure facilities, especially in electricity and transportation in Africa and Asia, to support industrial expansion and trade. Indeed, this is behind recent trends in FDI and other forms of TNC participation in developing countries (section B). The situation in telecommunications is very varied. Greater liberalization of this industry in Latin America than in Asia as a whole would explain the difference in telecommunications TNC involvement in these two regions. It also depends on the extent of an existing fixed-line base. In regions such as Africa, where fixed-line telecommunication systems are not extensive, mobile telephony is usually subject to relatively liberal regulations and few strong incumbents (in mobile telephony) exist, there have been significant levels of FDI by TNCs from both developed and developing countries (sections B and C).

Other drivers. In addition to market-related drivers, the strategic economic and political considerations of home economies and governments have assumed greater importance in the internationalization of infrastructure TNCs. A good example of such considerations is the role that infrastructure TNCs from China and India are playing in supporting their respective countries’ investments in extractive industries such as oil, gas and mining.⁷⁹ Infrastructure investments by Chinese and Indian TNCs, in Africa, for instance (figure III.7), include both “parallel” investments (i.e. those supporting the extraction and transport of raw materials) and “barter” investments (i.e. those made in return for rights to extract raw materials (Corkin, 2007; Davies et al., 2008)).⁸⁰

“Strategic” infrastructure investments of this sort are not a unique phenomenon; for example

Japanese TNCs were involved in significant investments in extractive industries and infrastructure projects during a parallel period of rapid economic growth and “resource insecurity” in the 1970s and 1980s (Ozawa, 2008). Other countries pursuing strategic investments in infrastructure include Spain in Latin America (Clifton, Comin and Diaz-Fuentes, 2007) and South Africa. South African infrastructure companies – many of them State-owned, such as Eskom (electricity) and Spoornet (railways) – have been encouraged to invest in Africa in order to foster regional trade and integration, as well as particular policies such as the trans-Africa electricity grid (South Africa, MPE, 2004; 2007; section A.3).

Strategic motives for TNC involvement in infrastructure are generally related to export interests (e.g. exports of minerals or electricity). This explains why investment by some Chinese, Indian and some other developing-country TNCs takes place in developing countries – including LDCs – whose markets are deemed too small or risky, especially by developed-country TNCs.

b. Modalities of TNC involvement

The modalities of involvement by infrastructure TNCs in developing countries are determined by three factors: their competitive advantages, the degree of risk of a particular project, and host government objectives and policies. Overall, the legal forms under which they operate in developing countries differ significantly from the FDI-centred modalities that prevail in many other industries, notably manufacturing. Looking first at competitive advantages, the expertise, production capabilities and tacit-knowledge-based characteristics of most FSAs in infrastructure industries are best utilized through modalities that allow the direct participation of TNCs in projects.⁸¹

Regarding the issue of risks, according to infrastructure TNCs in the survey, since the scale of infrastructure projects can be extremely large, and the payback long term, in many cases the potential risks necessitate modalities involving partnerships, although other techniques are also used to reduce the risk. The two most common risk-related factors identified by respondents in the survey were political and economic instability (mentioned by 35% of TNCs) and regulatory and legal issues (cited by 47%).⁸² In order to disperse risk, TNCs make use of risk mitigation insurance cover,⁸³ and are adept at securing financing from a wide variety of sources (which is why financial expertise is an important FSA, as mentioned earlier),⁸⁴ as well as entering into partnerships of various kinds (e.g. joint ventures and consortiums). Partners take many forms, including private equity funds, international organizations and national agencies, and other infrastructure firms.

This explains the importance of project management expertise.

Finally, in addition to issues of FSAs and risk, the modality of a particular project is determined by host government policies. Many governments are reluctant to relinquish full ownership of State or public assets to the private sector, including TNCs, and often seek options short of this, such as management contracts and BOTs. Reflecting competitive advantages, risks and host government preferences together, a variety of legal forms prevail for infrastructure TNCs' participation in developing countries. This is borne out by the survey. Only 25% of cases of TNC involvement in the survey (multiple responses were allowed) were pure FDI, and most of these were in telecommunications or smaller scale electricity generation investments (which entail fewer risks and government resistance). Apart from FDI, of the remaining cases 55% were concessions (25% BOO, 16% BOT and 14% other types of concession) and 12% management contracts, depending on the specific nature of a project, TNC strategies and government objectives. (The remaining 8% of cases were denoted as "other".) These results support the evidence presented on legal forms (section B).

3. Internationalization strategies of infrastructure TNCs

Three types of TNCs can be discerned from the UNCTAD survey, each with a relatively clear strategy and geographic orientation. Companies in the first and largest group are from all regions and in all the infrastructure industries,⁸⁵ and they are internationalizing mainly at a regional level.⁸⁶ They are mostly small or medium-sized companies (though relative size differs by infrastructure industry) which have expanded into geographically proximate markets with which they are familiar, and which allows them to expand in scale and benefit from synergies, but at a relatively lower risk. Within developing regions, this results in the high share of South-South investment in total investment (table III.17), especially in Africa, Asia and the LDCs. This pattern is confirmed by other studies (Aykut and Ratha, 2004; Aykut and Goldstein, 2007; Naidu and Mbazima, 2008; Pradhan, 2005). These regionalization strategies are expected to continue in the future.

A second group of companies identified by the survey comprises large, developed-country TNCs, mainly European, and strongly represented in electricity, telecommunications and water.⁸⁷ Generally these firms have affiliates around the globe, but tend to be concentrated more in some host regions, such as Latin America for Spanish companies and Africa for French companies, reflecting historical and cultural affinities. As a consequence of the

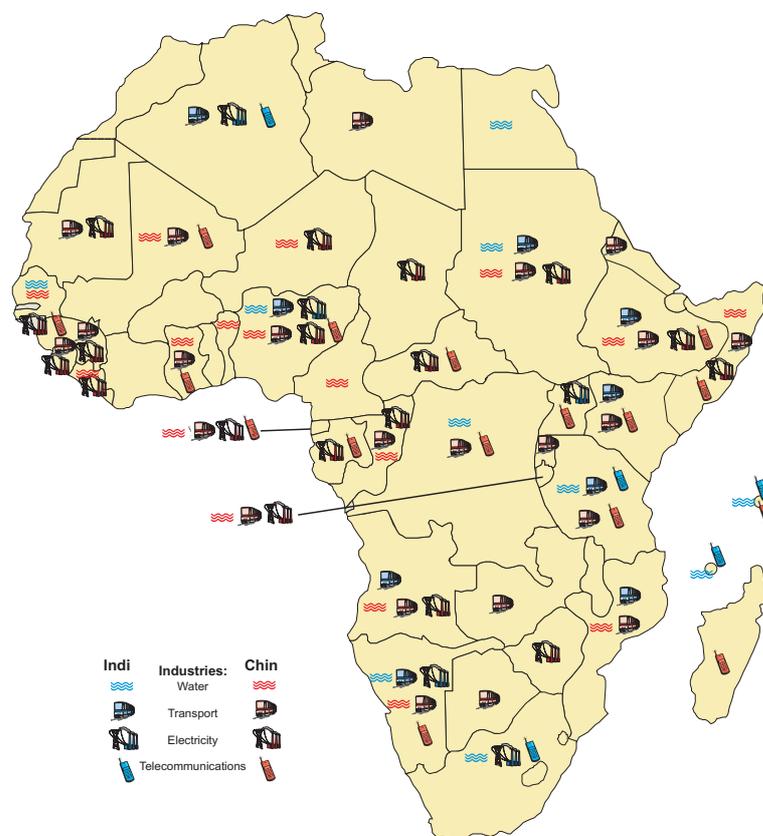
liberalization of infrastructure industries in the 1990s, they were the first to expand internationally, with the aim of benefiting from first-mover advantages, such as securing favourable terms of entry into host economies, having the best choice of local partners and establishing barriers to entry for latecomers (Ramamurti and Doh, 2004).

Latin America had the highest level of participation by this second group of TNCs during this period because it was the first region to liberalize extensively in infrastructure in the early 1990s (section B). For the same reason, and because so many investors were from developed countries, the South-South share is still relatively small (table III.17). However, this first wave of international expansion was a case of "over-reach" by a number of the major developed-country TNCs, because of their limited international experience among other factors. As a result, it subsequently led to a retrenchment from Latin America and to a relative shift to other regions, especially Asia. All companies in this group are planning to expand in the near future, both in host regions and countries where they are currently invested, as well as into new ones. Host regions and countries primarily targeted by this group for expansion are West Asia (especially the Gulf), the Russian Federation and CIS, and China and India.

The final group of infrastructure TNCs are large emerging Asian infrastructure companies from many economies, including China, India, Hong Kong (China), Malaysia, the Republic of Korea, Singapore and the United Arab Emirates.⁸⁸ They are well represented in electricity, telecommunications and transport and, though some are not as large as their developed-country counterparts, they can make formidable competitors (section D.1). Until the early 2000s, international investment by these companies focused on nearby countries, with some forays into other regions. However, unlike the first group of TNCs mentioned above, their scale and scope have allowed them to pursue global ambitions,⁸⁹ and their recent and near-term plans are the most expansionist of all three groups.

In the survey, all of the Asian infrastructure TNCs reported that they were planning expansion in Africa and South-East Europe and CIS, as well as further expansion within Asia itself; and nearly all mentioned plans to expand in Latin America and the Caribbean. A number of the TNCs in this group stated that one of their major objectives was to become a global player in their respective industry. In order to do this, they reported using a high proportion of their profits⁹⁰ to finance the acquisition of created assets in other developing countries, as well as in developed countries, in some cases to augment their competitive advantages (*WIR06*; Stenvert and Penfold, 2007).

Figure III.7. Significant Chinese and Indian investments in infrastructure in Africa, up to April 2008



Source: UNCTAD, based on research by Arno Neppen and Johanna Jansson, Centre for Chinese Studies, Stellenbosch University, South Africa.

E. Conclusions

Infrastructure is the backbone of economic activity and competitiveness, and demands for its large-scale expansion are burgeoning on a global scale. At the same time, a number of countries, especially LDCs, have been unable to secure the necessary investment to establish sufficient infrastructural facilities and services. Overall, developing countries face large financing gaps in their plans to invest in physical infrastructure; and their lack of institutional capabilities is preventing the realization of such investment. These gaps can be filled if all sources, including financing by TNCs, are mobilized.

There has been a fundamental change in the role of the State in infrastructure industries around the world, as governments have opened them up to much greater involvement by the private sector – including TNCs – in financing, investment, ownership and management. This new relationship between the State and the private sector will continue to change and deepen, at least for some infrastructure industries, as technological and other changes remove natural monopoly elements as a whole (e.g.

in most telecommunications) or in part (e.g. electricity generation), thereby opening them up to participation and competition by a number of players.

The following are some of the main characteristics and features of TNC involvement in the infrastructure industries, especially in developing and transition economies:

- Infrastructure TNCs' involvement in developing and transition economies takes a variety of legal forms or modalities, including FDI, non-FDI and mixed forms. These modalities are context specific, and vary by industry and region, and they shift over time. Since ownership advantages are not easily externally traded (e.g. in the form of licensing agreements), the modalities preferred by TNCs include management contracts, BOTs and FDI. The modalities selected also depend on other factors, including host country policies (which may only permit certain modalities) and risk-related issues (which may encourage partnerships and consortiums).

In some segments such as mobile telephony, where the market structure facilitates competition, FDI forms are usually very important. In other segments, especially in water supply, TNCs are usually permitted only to operate through non-FDI forms, such as management contracts.

- TNC involvement has taken different forms depending on the region. In Latin America and the Caribbean, for instance, equity forms were common in the 1990s, but there has been an increasing shift towards non-equity forms in the new millennium. In contrast, non-equity forms of TNC entry have been more common in Asia.
- The extent of TNC participation has evolved in cycles. After a rise in the 1990s, mostly by TNCs from developed countries, the end of the decade and the beginning of the new millennium witnessed a brief decline in infrastructure-related FDI and other forms of involvement FDI flows globally, followed by a recovery from 2002 onwards. In the latest wave, there are also differences in the extent of involvement in various infrastructure industries compared to earlier periods. For instance, the extent of new TNC involvement is relatively less pronounced in telecommunications. As a whole, the share of FDI in infrastructure in total FDI

- globally was about 10% in 2006, compared to only about 2% in 1990.
- Over the period 1990–2006, the stock of FDI in infrastructure in developing countries, as a measure of TNC involvement, increased 29-fold to \$199 billion. Throughout the period it continued to grow in most infrastructure industries, though the expansion in water has flattened out since 2000. However, despite the large increase in TNC involvement, it is still small compared to the overall investment needs.
 - Until 2000, Latin America had the highest amount of TNC involvement, both in absolute and proportional terms, but following a sharp decline there, Asia now has the highest in absolute terms. TNC involvement in Africa has been significant to date in transport and telecommunications, but less so in electricity and water. Overall, allowing for data limitations, Asia accounted for about 47% of the total stock of infrastructure FDI in developing countries in 2006, with Latin America and the Caribbean accounting for 46% and Africa for about 7%.
 - The group of LDCs has remained by and large marginalized in the process of globalization of infrastructure investment, accounting for about 2% of the stock of infrastructure-related FDI in developing countries in 2006. Given the scale of the infrastructure gap faced by these countries, an important question is the degree to which TNCs can help in financing the gap, and what this participation entails in the wider context of sources of finance. In some LDCs, firms from other developing countries are prominent investors in infrastructure, especially in telecommunications and transport.
 - The universe of the largest TNCs investing in the infrastructure industries of developing and transition economies is changing:
 - There has been a marked rise in international involvement by developing-country TNCs. In some industries, such as telecommunications, they have become major players, and in others, such as transport, they have even become world leaders.
 - The universe of infrastructure TNCs has also changed through mergers between large players. Both developed- and developing-country TNCs have enhanced their competitive advantages by purchasing and utilizing created assets through M&As. This has generally increased their size in terms of assets, employment and revenue and propelled them to higher positions in the list of leading infrastructure TNCs.
 - Many major infrastructure TNCs, from both developed and developing countries and across all industries, are State-owned enterprises.
 - Increasingly a number of new types of players are emerging, including private equity firms and sovereign wealth funds, which increases the range of options available to governments, both in terms of prospective operators and sources of finance.
 - The types of competitive or ownership advantages that infrastructure TNCs possess are primarily related to specialist expertise or capabilities, such as network design and operation, engineering skills, environmental know-how, project management capabilities, and tacit, hands-on skills. Specialized business models and financial prowess are important in some industries and segments, such as telecommunications.
 - Differences in competitive advantages by type of company are a key consideration for host country governments. For example, TNCs from developed countries retain a significant competitive edge in water and electricity, but not in transport and telecommunications. In some areas, such as ports and telecommunications, developing-country TNCs already compete head-on with global leaders. Within industries, the unique competitive advantages of TNCs are likely to vary along the value chain, from the setting up of physical infrastructure (e.g. submarine cables or wireless towers in the case of telecommunications) to specialized services for specific customers.
- Looking to the future, infrastructure TNCs as a whole, including those in the UNCTAD survey, appear to be very optimistic about the global outlook for infrastructure in general, and prospects in developing countries in particular.⁹¹ Apart from the major recipient host countries of recent years (e.g. Brazil, China, India and South Africa), many other economies are being targeted by infrastructure TNCs, including some LDCs. Given this, it is necessary to ask how, and to what extent, infrastructure TNC involvement in their economies affects developing and transition countries, both positively and negatively, and how governments should respond in order to maximize the benefits and minimize the costs arising from TNC involvement. These issues are taken up in subsequent chapters.

Notes

¹ The term “infrastructure” used throughout this report denotes “economic infrastructure”, but excludes “financial infrastructure”, which is often included under economic infrastructure. This is in order to keep the analysis cogent, and in line with current usage by organizations dealing with development issues, including the United Nations, the World Bank and the Organisation for Economic Co-operation and Development (OECD), among others.

² The term “infrastructure”, rather than “economic infrastructure”, will be used in the rest of the Report.

³ The term “physical” infrastructure is sometimes used to denote this set of industries to distinguish them from other types of infrastructure (e.g. financial).

- 4 Water is recognized as a right in a number of international treaties and forums. Most notably the United Nations Committee on Economic, Social and Cultural Rights declares it a human right as follows: “The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses” (ECOSOC, 2002: 2).
- 5 In transport, for instance, provision of services and regional linkages and interconnectivity is key to economic growth: it links different parts of the world, regions and countries and integrates them into the global economy (OECD, 2006a). Improvements in transport infrastructure not only save travel time but also influence land values and people’s choices of modes of travel and shipment (e.g. using public transportation rather than the family car).
- 6 For example, the quality and coverage of transport networks influence the costs of inputs, production and distribution, and therefore national competitiveness (Aoki and Roberts, 2006). It is estimated that logistics costs, which account for 20% of sales on world average, are 50% higher in landlocked countries than countries having access to the sea (ESCAP, 2006). Some countries in East and South-East Asia are successful examples of “instrumentalizing transport for their overall national economic development” (ESCAP, 2006: 26).
- 7 According to ESCAP (2006: 34), “Transport is crucial to tackling the region’s poverty” because “distance is a key factor depriving the rural poor of access to basic services, such as health and education and to economic opportunities”.
- 8 Vertical unbundling relates to the separation of competitive and monopoly components of an industry. Horizontal unbundling refers to, for example, the splitting of a national network into regional ones and/or permitting several producers to supply one network.
- 9 See World Bank, “Issues Brief: Infrastructure” (<http://web.worldbank.org/>).
- 10 Domestic private sector investment in Africa’s infrastructure is typically low.
- 11 For example, the telecommunications industry has been more successful than transportation in attracting private investment. Chile has attracted more private investment in infrastructure than other countries in the region.
- 12 Partly because of divergent political perceptions of the role of infrastructure services in the economy and society, and partly because of the complex set of reasons behind the reforms (*WIR04*).
- 13 Although in broad terms “reforms” in infrastructure make industries more competitive, there are various types of reform (which are mutually reinforcing): (a) public sector reform, including corporatization, so that State-owned enterprises act autonomously of the State and in accord with “market discipline”; (b) market liberalization, including the unbundling of competitive segments from uncompetitive ones, and private participation in infrastructure financing and operations (to tap into the private sector’s assets, as discussed in Chapter IV, section D); and (c) regulatory reform, for example by establishing a regulatory agency in order to make the process of regulation independent of both the State and the operators (Sharan et al., 2007; Foster et al., undated; section A.1).
- 14 Prior to the late 1970s the United States’ model of dealing with the natural monopoly attribute of infrastructure involved the regulation of privately owned enterprises. The State was seldom involved in ownership or operations of infrastructure facilities (Ure, 2007). Unbundling effectively involved breaking up private monopolies.
- 15 However, the universe of infrastructure TNCs also includes many that are State-owned (section C), which also acquire companies and assets from “privatizations”.
- 16 Infrastructure TNCs emerged in various economies, including France, Hong Kong (China), Malaysia, Singapore, South Africa, Spain, Sweden, the United Kingdom, and the United States, entering both nearby and distant markets in the 1990s.
- 17 Many of them were engineering and construction companies, such as Bechtel (United States) and Hyundai Heavy Industries (Republic of Korea). Given the scale, scope and intricacies of infrastructure, they managed large, complex projects, often as lead firms in consortiums, establishing transport, electricity generating plants or other facilities.
- 18 Examples include CLP (Hong Kong, China), KEPCO (Republic of Korea), KDDI (Japan), Odebrecht (Brazil) and Transnet (South Africa).
- 19 The remainder is provided by commercial banks (Orr, 2008; Rodriguez and Santiso, 2007).
- 20 Among the most important reasons private equity investors give for investing in infrastructure are: rising population and strong demand, even in times of sluggish economic growth; attractive risk-adjusted yields; strong, predictable, inflation-linked cash flows; close compatibility with pension funds and insurance companies that require high-quality, long-term, income-oriented investments to match their long-term liabilities; lack of government bonds; and lack of correlation to equity and bond markets (Orr, 2007).
- 21 These are usually managed by private equity firms, and created to raise funds from institutional investors in order to invest in pre-defined sectors. There are now a large number of such funds, including Barclays Private Equity, Macquarie and the Galaxy Fund.
- 22 These invest directly in infrastructure assets as part of their diversification strategy. Examples of such investors particularly active in infrastructure are Ontario Teachers’ Pension Fund and Prudential.
- 23 For example, most major banks create such vehicles. Examples of infrastructure companies creating such vehicles (e.g. to facilitate systems integration) are Balfour Beatty and Babcock & Brown.
- 24 “Infrastructure Funds: Building on strong foundations”, *Financial Times*, 13 March 2008.
- 25 For example, Renaissance Capital, already very active in the Russian Federation and other CIS countries, is increasingly involved in Africa, especially in Kenya and Nigeria. Similarly, the Macquarie Bank Group, which probably has the largest number of infrastructure funds under management (\$22 billion), is active in both developed and developing countries, such as India and South Africa (Orr and Kennedy, 2008). Some developing countries, such as India, are actively encouraging funding in infrastructure by private equity funds (Nazareth, 2008).
- 26 For instance, in facilitating a dialogue with local groups.
- 27 Or “divestitures” in the terminology of the World Bank’s Private Participation in Infrastructure (PPI) Database.
- 28 In principle, the acquisition of a private stake can be separated from a full or partial takeover of the management of the facility, but this is rare.
- 29 These percentages have been calculated on the basis of the total and infrastructure-related FDI stocks of only those countries for which data on FDI stock in infrastructure were available. This is largely a consequence of differing country coverage of FDI data for the infrastructure industry, which shows that such information should be treated with caution.
- 30 This pattern is confirmed and complemented by the list of the world’s largest infrastructure TNCs (see section C) many of which are from these countries, together with others from Germany, Hong Kong (China) and Spain.
- 31 No information is available on actual investment.
- 32 Data on FDI flows and cross-border M&As indicate that the increase lasted till 2000, but data on commitments suggest a decline already in 1999.
- 33 It has to be stressed however, that cross-border M&A and FDI data are not directly comparable, and the fluctuations in the former have been much larger than in FDI flows (*WIR2000*).
- 34 For instance, in 1998, Telecom Portugal acquired 20% of Telesp Celular Participacoes (Brazil) for \$3 billion; in 2000, Telefónica (Spain) acquired the majority of Telecomunicaciones de Sao Paulo (Brazil) for \$10 billion, while in 2007 Telefónica acquired a 50% stake in Colombia Telecomunicaciones for \$3 billion.
- 35 In 2007, Vodafone (United Kingdom) acquired a majority stake in Hutchison Essar (India) for \$13 billion, while Qtel (Qatar) acquired majority shares in Wataniya (Kuwait) for \$4 billion.
- 36 These trends in foreign investment commitments are based on the dates the agreements were reached, rather than when

- investments were actually made – however the latter data are not available.
- 37 These findings differ partly from the results of previous studies. In one previous study of 34 independent power projects (IPPs) in 13 developing and transition economies, the majority of investments were in the form of FDI (Woodhouse, 2006).
- 38 In 1993, State-owned terminals accounted for 42% of world container throughput (i.e. the quantity of cargo that can pass through a port), but by 2006 this figure was down to 19%. The share of State-owned terminals in world throughput varies by region: in Northern Europe it is 6%, in South-East Asia 42%, Eastern Europe 24% and Africa 68% (Drewry, 2007). Even within the same region, the situation differs. For example, the Port of Tanjung Pelepas in Malaysia is 30% owned by the shipping line Maersk Sealand (part of the A.P. Moller-Maersk Group), whereas the adjacent Port of Singapore remains one of the few ports still owned by its national Government, although it has been corporatized. Yet today, most of the top 100 container ports, which represent over 80% of total world container port throughput, have some form of private participation.
- 39 Usually involved in directly related activities (e.g. construction companies also running toll roads, or electricity machinery operators moving into power generation).
- 40 Suez (France), RWE (Germany) and YTL Power (Malaysia).
- 41 For example, Suez (France) and YTL Power (Malaysia) are involved in electricity and water, Hutchison Whampoa (Hong Kong, China) operates in both seaports and telecommunications (and other, non-infrastructure industries), and Bouygues is involved in both roads (through its affiliate Colas) and telecommunications.
- 42 In the case of seaports, however, developed- and developing-country TNCs are on par; for instance, AP Moller-Maersk (Denmark) and DP World (United Arab Emirates) have practically the same amount of foreign assets (annex table A.III.4).
- 43 Foreign assets of infrastructure TNCs, especially firms that operate in a number of different industries (conglomerates), can include non-infrastructure businesses.
- 44 But not in the United States, as mention in section A.3.
- 45 The emergence of private TNCs in developed countries was also made possible by the fact that privatization in these countries seldom involved inward FDI, but rather domestic investments or foreign portfolio investments (though there was also a spate of cross-border M&As).
- 46 In 2007, the number of these firms fell from 7 to 6, as Enel, in partnership with Acciona (Spain), acquired control of Endesa (Spain) (annex table A.III.6).
- 47 Recent mega deals include the acquisition of Powergen (United Kingdom) by E.ON (Germany) in 2002, Electrabel (Belgium) by Suez (France) in 2005, and Endesa (Spain) by Acciona (Spain) and Enel (Italy), and Scottish Power (United Kingdom) by Iberdrola (Spain) in 2007 (annex table A.III.6). In 2008, EDF (France) and ACS (Spain) planned to mount a joint bid for Iberdrola (Spain) and Suez intended to merge with Gaz de France. European utilities are also acquiring assets in the United States. For instance, National Grid (United Kingdom) acquired Keyspan (United States) in 2007 (annex table A.III.3), which gave the former a strong foothold in that host country.
- 48 Regional integration and market liberalization have encouraged the formation of large regional electricity TNCs, especially in Europe and the United States. The EU's attempts to unbundle power generation, transmission and distribution from each other may further reshape the structure of the industry in the region, as utilities owning different segments would be obliged to re-sell some of the segments to new players.
- 49 Examples of such investors, most of which are not in the top 100 or top 50 infrastructure TNCs, include the following: Malaysian companies such as Malakoff, MMC, YTL and Zelan; Thai companies such as Banpu, EGCO and Ratchaburi; Brazilian companies such as Alusa, Petrobras and Votorantim; Singaporean companies such as Singapore's Power International and Asia Power; Kepco from the Republic of Korea; and India's Tata and Reliance Groups.
- 50 Of which Vodafone's acquisition of Mannesmann in 2002 alone accounted for more than \$200 billion.
- 51 América Móvil started its international expansion in 2000 by establishing a joint venture in Brazil with global players Bell Canada and SBC Inc. of the United States. Two years later, it acquired its partners' Latin American assets, and BellSouth's (United States) full Brazilian business. Between 2003 and 2006, it acquired the assets of Verizon (United States) in Argentina, Puerto Rico and the Dominican Republic, France Télécom's stake in Compañía de Telecomunicaciones de El Salvador, Telecom Italia's affiliate in Peru, and a company formed by Endesa (Spain) in Chile (Smartcom). Telmex's purchase of other TNCs' assets was smaller in scale: in 2002, it bought MCI's (United States) stake in a Brazilian long-distance operator, followed by the purchase in 2003–2006 of AT&T's (United States) assets in Argentina, Chile and Ecuador (ECLAC, 2008).
- 52 This company was acquired by Ferrovial Group (Spain) in 2006 (Deloitte & Touche, 2006).
- 53 Copenhagen Airport is an affiliate of Macquarie Airports (Australia).
- 54 Kansas City Southern Industries (United States) was the largest investor in railways in developing countries.
- 55 Bouygues (a major French construction TNC), Bombardier (a major Canadian manufacturer of aircraft and rail transportation equipment and systems) and CAF (Spain).
- 56 Examples are Comazar (South Africa), New Limpopo Bridge Project Investments (a joint venture between Mauritian and South African finance institutions), Railways of India Technical and Engineering Services (India).
- 57 Others include NWS Holdings (Hong Kong, China), Citra Lamtorogung Persada (Indonesia), Road King Infrastructure (Hong Kong, China), Hopewell Holdings (Hong Kong, China), Tribasa (Mexico), and Sideco Americana (Argentina).
- 58 AP Moller-Maersk Group (Denmark) is in second place, and, until its acquisition in 2006 by DP World, P&O Ports (United Kingdom) was fifth. Another significant player in developing countries, Modern Terminals (Hong Kong, China) has emerged more recently and its investment commitments in 2001–2006 exceeded those of PSA (Singapore).
- 59 For example, Sealand, Maersk, APL, P&O Containers and Mitsui O.S.K. Lines.
- 60 Agbar, Suez, Veolia, RWE and Southern Cross, in that order.
- 61 There was a similar, but less marked decline in the share of the top 10 investors (from 86% to 65%).
- 62 Local competitors have the advantage of familiarity with the host economy, everything else being equal.
- 63 In summary form, these factors are the essence of the eclectic or OLI (ownership-location-internalization) paradigm (Dunning and Lundan, 2008). In order to explain the existence of TNCs and their foreign involvement, it is essential to examine three issues. First, the ownership advantages (O) (e.g. technology, managerial expertise, or a recognized brand) a company possesses in order for it to be able to compete with other firms, especially in overseas markets (Hymer, 1976; Kindleberger, 1969; Dunning, 1979; Caves, 1982; Wernerfelt, 1995; Buckley, 1998; Dunning and Lundan, 2008). Secondly, there have to be some location advantages (L) to operating in the foreign host economy as opposed to at home (e.g. larger markets, acquisition opportunities, or lower costs of production). Finally, the modality of entry into a host economy depends on the internationalization decision (I) of the company – whether it is more cost-effective for a firm to utilize its competitive advantages through direct ownership and control of a foreign facility (FDI) or some other means (e.g. a management contract) (Buckley and Casson, 1976; Hennart, 1982; Dunning, 1995; Dunning and Lundan, 2008).
- 64 Early theory on competitive advantages tended to focus on a narrow set of advantages, such as the possession of proprietary technology, brands or other assets, hence “ownership advantages”. However, research has shown that firms can draw on a wider set of assets or advantages, both firm-specific and non-firm-specific, such as access to cheap capital. The typology of FSAs used in this section draws on a framework established in *WIR06* (chapter IV).
- 65 Respondents were asked to mention up to three competitive advantages they possessed, so the denominator for this and

- equivalent figures below is the number of TNCs responding multiplied by 3.
- 66 All the water companies in the survey were from developed countries.
- 67 Unlike other industries, in manufacturing for example, it is harder to distinguish between FSAs deriving from “ownership of technology and expertise” and “production and service capabilities”. The main difference is that the former are advantages embedded in the organization and employees, and are based on long-term experience and tested knowledge. The latter type of FSAs are more akin to solutions that work, but which need to be tested further before they are acknowledged to work or become a part of regular routines.
- 68 Since many projects in electricity, transport and water are large-scale, the remaining investment generally comes from partners in a consortium or bank loans.
- 69 These nevertheless have eventually to be transformed into “ownership” advantages (footnote 67).
- 70 As discussed in “Nomads at last: a special report on mobile telecoms”, *Economist*, 12 April 2008, as well as UNCTAD 2007g; Guislain and Qiang, 2006; and Clifton, Comin and Diaz-Fuentes, 2007.
- 71 For example, mobile virtual network operators (MVNOs) – where a company such as Virgin Mobile (United Kingdom) repackages a telecommunications service actually being run and operated by another company under its own brand – were recently pioneered in Europe, but are already being imitated by companies in Asia and elsewhere (Ernst & Young, 2008c).
- 72 There are also 20 telecommunications TNCs in the top 50 developing-country infrastructure TNCs.
- 73 The established position of incumbents also affects new players from developed countries, who therefore – like developing-country TNCs – find it easier to enter markets in the South. This is one of the reasons that companies such as Sithe Global (United States) in electricity and Millicom (Luxembourg) in telecommunications are focusing on investments in developing economies.
- 74 This topic is discussed in various articles published in Ernst and Young’s online journal, *Utilities Unbundled*, at: www.ey.com.
- 75 Some of them may have a competitive edge over incumbent TNCs because the formation of their FSAs has occurred relatively recently, during a high-growth, export-orientated development phase in their home economies, although these advantages must be critically juxtaposed against the well-honed, long-term experience of developed-country companies.
- 76 However, there are 12 electricity companies (two combined with other industries) in the top 50.
- 77 In the top 100 there are only 5 railroad companies, and none feature among the developing-country top 50.
- 78 The ISO 9000 and 14000 series are quality standards in management/business processes and environmental management respectively, set by the International Organization for Standardization and widely used by businesses.
- 79 Of course, not all investments by Chinese and Indian TNCs are intended to support their respective Governments’ strategic goals.
- 80 Apart from Chinese TNC involvement in infrastructure to support the home country’s extractive industry investments, there may also be other, longer term strategic interests at play in Africa. For example, China has started to establish a series of industrial zones, commencing with one in Mauritius.
- 81 In theory, internalization of markets occurs fully with FDI, partly with BOTs and not at all with management contracts.
- 82 Including controls, such as foreign exchange controls.
- 83 TNCs in the survey generally reported using risk mitigation insurance cover. The most commonly used are “breach of contract cover” and “partial credit guarantees”, but “political risk cover” and other types of insurance are also used. However, the use of risk mitigation cover and debt financing is less common in telecommunications and more frequent in electricity, transport and water, because of both higher short-term profitability and lower costs in telecommunications.
- 84 Commercial bank loans were the most commonly used by companies responding to the survey, though significant amounts were also raised from governments, international financing organizations (e.g. the International Bank for Reconstruction and Development (IBRD)) and private equity funds.
- 85 Apart from water, but this may be an artefact, because only a small number of water companies participated in the survey.
- 86 Here, region is viewed with respect to the location of company, rather than in a predefined way. For example, a Swedish company in the survey is investing in South-East Europe and CIS countries, while a Turkish company has investments around the Mediterranean.
- 87 Again a lack of representation in the survey may be an artefact, since proportionally larger companies were targeted. For example, many European port companies involved in developing countries – such as Mersey Docks (United Kingdom) – are relatively small.
- 88 A very small number of African and Latin American infrastructure TNCs have similar profiles, but generally these companies focus on their local region.
- 89 In some cases, their home governments see these companies as national champions and encourage their global strategies.
- 90 And in some cases, privileged access to cheap funds in their home countries.
- 91 Over 75% of the infrastructure TNCs in the UNCTAD survey have expanded their involvement in developing countries over the past five years, and virtually all said they would continue their expansion over the next five years.

CHAPTER IV

IMPACT OF TNC PARTICIPATION ON HOST DEVELOPING COUNTRIES

Given the participation of TNCs in the infrastructure industries of a growing number of developing countries, and the significance of infrastructure for sustainable development, the implications of TNC involvement are of considerable importance for host countries. Their involvement raises some crucial questions. How does TNC involvement affect the size of investment and performance of infrastructure industries and the provision of infrastructure services, including to the more vulnerable segments of society? In what ways are performance gains derived from TNC involvement better or worse than those engendered by domestic enterprises, and are there any negative impacts to consider? What are the wider effects of TNC participation in infrastructure on the host economy and society? This chapter examines the impact of TNC participation on, and its implications for, host developing countries.

Conceptually, the potential for positive and negative impacts arises mainly from the resources and capabilities that TNCs possess – often reflecting their firm-specific advantages (section III.D) – which can be transferred to their host-country operations, with potential implications for domestic industries and the economy. Among the main advantages are access to financial capital, both internally generated and externally mobilized, and knowledge and expertise (often tacit). The latter include production technology, engineering expertise, management and marketing skills and organizational know-how. Such know-how, in the case of infrastructure industries, also implies the capability of running

networks and managing complex projects. Other factors, such as the impact of TNC entry on market structure, competition and efficiency, can also result in performance gains or losses for a host-country's domestic industries, with implications for the economy as a whole.

Whether the potential for favourable impacts is realized, and the extent to which TNC participation in infrastructure might have negative consequences for host countries, depends in turn on a number of factors, including firm-, industry-, and country-specific conditions. For example, at the firm level, TNCs' strategies with respect to internationalization, in particular their mode of participation in a host country, affect the degree and type of technological or other assets that can be transferred to host-country entities. Industry-specific factors include the capital intensity, technological complexity, market structure and social significance of different infrastructure industries. Country-specific factors comprise, among others, domestic industrial and human-resource capabilities, and the availability of necessary inputs complementary to those provided by TNCs. And, most importantly, they also include government policies with respect to TNC participation, effectiveness of policy implementation, the quality of institutions and governance in host countries, and regulatory and negotiating capabilities with respect to private participation in general, and TNC participation in particular in infrastructure industries (chapter V).

A major challenge for the analysis is how to isolate TNC-specific impacts.



Current or past domestic public or private provision of the relevant services is taken into account as a counterfactual, where possible and relevant, in the analysis. Section A of the chapter examines the impact of TNC participation on financial flows for, and investment in, infrastructure industries. Section B considers first the impact of TNC involvement on the performance of infrastructure industries through the transfer of technology and organizational and managerial expertise, and through its effect on competition and efficiency in service delivery. It then goes on to examine the overall impact on the provision of infrastructure services and its implications for access by the poorer sections of the community. Finally, section C considers some broader development implications of TNC involvement in the infrastructure industries of host countries. Section D concludes.

A. TNCs' role in mobilizing financial resources and the impact on investment in infrastructure industries

Expanding and upgrading infrastructure in keeping with developing countries' growing requirements calls for substantial investment in infrastructure industries, which are typically capital-intensive due to the physical facilities and networks that they involve (section III.A.1). Many projects are very large and are characterized by economies of scale. They require huge capital outlays, while the stream of returns on capital is spread over many years. Thus the risks to investors are typically high. Mobilizing the necessary financial resources from domestic or international capital markets is difficult for public or private enterprises in many developing countries. This has led a number of countries to open up to FDI and/or encourage other modes of TNC involvement, such as build-own-operate (BOO), build-own-transfer (BOT) or rehabilitate-own-transfer (ROT) concession arrangements (section III.B). Indeed, TNCs may have a number of competitive advantages that enable them to contribute to the mobilization of financial resources for boosting investment in infrastructure industries, while also being directly involved in undertaking the investments and production activities for the provision of infrastructure services.

Financial strength and large cash flows are competitive advantages that foster rapid expansion of many TNCs operating in infrastructure (section III.D). In addition, large and well-established firms are able to raise funds from home-country and international markets as well as from host developing-country markets, where the latter exist (section III.A.3). This

ability to mobilize and harness external financial resources for investment is particularly evident in concessions such as BOTs, in which a high proportion of the costs are covered by debt.¹ However, the extent to which TNCs can contribute to financial resources for investment in infrastructure also depends on host-country conditions and objectives, the specific infrastructure needs of a country and the gaps in domestic (State and private) resources and capabilities.

In the early 1990s, as more and more developing countries began to open up their infrastructure industries to private national and foreign companies, it was believed that TNCs could play a key role in securing financial resources to reduce the persistent gap between infrastructure needs and investments by the State, which was the main provider of the services. At the time, many of the countries concerned, especially in Latin America and Africa, were heavily indebted and turned to the private sector, including TNCs. Since then, the financial situation has improved for some economies, but the investment gap in infrastructure still remains very large in the developing world as a whole (section III.A.2). Thus the ability of TNCs to mobilize financial resources for investment remains an important consideration for many countries. Indeed, TNC participation in infrastructure in developing countries has resulted in the inflow of substantial financial resources. One indicator, allowing for data limitations, is the stock of infrastructure FDI in developing countries, which surged 29-fold between 1990 and 2006: from \$6.8 billion to \$199.4 billion (table III.4). Another measure, the foreign investment commitments in private participation in infrastructure (PPI)² projects (which include FDI, but also other investments that are an element of concessions), also indicates that TNCs have mobilized significant resources for investment in developing countries. During the period 1996–2006 such commitments amounted to about \$246 billion (table III.7). The impact on infrastructure investment in developing countries arising from this mobilization of financial resources by TNCs is discussed below, including variations by region, industry and country.

Overall impact of TNC involvement on infrastructure investment in developing countries. Not all financial resources mobilized by TNCs constitute investment or an addition to productive assets for a host industry or country. One reason is that a proportion of FDI by TNCs is used to purchase privatized enterprises, which represents a transfer of ownership, but not new capital stock.³ But at the same time other forms of TNC participation also include investment.⁴ This is especially true of concessions, which involve large amounts of investment to build new or improve existing infrastructure.⁵ During the period 1996–2006, according to data on the breakdown

of foreign investment commitments (referred to in the discussion below as TNC commitments), 52% of TNC participation, *by value*, in the infrastructure industries of developing countries was in the form of FDI, while the remaining 48% was in the form of concessions.⁶ This nearly equal ratio of concessions to FDI implies a possibly greater overall impact on investment in infrastructure industries than that suggested by data on the stock of FDI (even allowing for some financial resources being used for purposes other than investment). Because some relevant data are not available, it is not possible to give a precise figure for the impact of TNCs, but it is certainly appreciable and likely to be higher than that suggested by FDI data alone.

The value of new TNC commitments in infrastructure projects in developing countries were lower in 2001–2006 than in 1996–2000 but this was largely a reflection of a more general downturn in infrastructure investments in developing countries and globally. TNC infrastructure investment commitments in Latin America and the Caribbean fell from \$109.4 billion to \$21.7 billion between 1996–2000 and 2001–2006 (table III.7). On the other hand, TNC commitments increased in Africa between the two periods, and fell only slightly in Asia (table III.7).⁷

The fall in TNC infrastructure investment commitments between the two periods was concentrated in a few large countries in Latin America⁸ and Asia, in particular Argentina, Brazil, Colombia, India, Indonesia and Peru.⁹ But, according to the PPI database, in most developing countries those commitments rose between 1996–2000 and 2001–2006. Some of the larger countries in which they rose sharply were Bangladesh, Chile, Egypt, Nigeria, Jordan, Pakistan and the United Republic of Tanzania.¹⁰

A number of factors influence the level of TNC investment, including the budgetary situation of prospective host countries. For example, trade surpluses from rising commodity prices and sales of goods and services have improved the budgetary situation in a number of countries, especially in Africa, Latin America and the Caribbean and West Asia. This allows them more options for infrastructure investment, including a greater reliance on domestic enterprises.¹¹ However, since a number of developing countries, especially least developed countries (LDCs), have insufficient institutional and enterprise capabilities to build and operate infrastructure facilities effectively, they are unable to readily convert an influx of funds into investments in this sector. Countries in this position are exploring a number of approaches to address this institutional gap, which poses a constraint to infrastructure development. Some of these approaches entail significant participation by TNCs, an example of which is the Angola-China partnership in infrastructure investment (box IV.1).

In addition to their direct impact on investment, the entry and operations of TNCs can indirectly influence investment levels in host country infrastructure industries through their effects on investments of domestic firms – whether SOEs or private enterprises (*WIR99*). These effects can vary: TNC involvement may “crowd in” other investors (e.g. successful operations by the TNC may encourage investment by domestic enterprises through their “demonstration effect”) (examined further in section B.1); or an increase in the competitive advantages of domestic enterprises through diffusion of technology and other know-how from TNC operations may enable them to invest in new areas (section B.1); or, taxes paid by TNCs could potentially be used for further infrastructure investments by the State (section C). On the other hand, a fall in investment levels might occur

Box IV.1 The Angola-China partnership in infrastructure investment

A strategic partnership was established between the Governments of Angola and China to finance and undertake infrastructure investments in 2004. Rich in oil and gas, but few other natural or man-made resources and in need of massive and speedy rehabilitation of its infrastructure after decades of civil war, Angola concluded an agreement with China, whereby, in return for providing China with a secure supply of oil, Angola would receive large oil-backed loans for rehabilitating and expanding its infrastructure. An important element of the agreement is that the bulk of the work would be undertaken by Chinese TNCs, but after a process of competitive bidding by at least three Chinese companies.^a

A number of other African countries, notably the Democratic Republic of the Congo, are considering similar strategic partnerships with China. Countries such as India are also showing interest in similar collaboration in Africa (section III.D). It is too early to assess the effectiveness of the Angola-China arrangement, especially compared to other approaches. But given the pressing infrastructure needs of a number of countries in Africa, their lack of domestic public and private capabilities in these industries, and the opportunity to use (future) trade surpluses to pay for (current) infrastructure investment, it is understandable that their governments are tempted by this approach.

Source: UNCTAD, based on Corkin, 2008; Pradhan, 2008; Chan, 2007; and Corkin and Burke 2006.

^a A number of Chinese companies, such as China Road and Bridge Corporation (CRBC), Jiangsu International and ZTE Corporation, are already working on infrastructure projects throughout Angola. A few have partnerships with Angolan firms and TNCs from other countries (such as Galf Engineering, a German firm specializing in road building).

from the “crowding-out” of investors, for example because of competition, when domestic enterprises are still at an early stage of development or due to anti-competitive behaviour by TNCs (section B.2).

A consequence of investment in infrastructure by foreign companies in the 1990s was a decline in public investment in the sector across much of Latin America and parts of Africa. In expectation of a large-scale increase in private sector investment, many governments in Latin America – faced with persistent budgetary gaps – cut back drastically on public expenditure in infrastructure in the early 1990s (Calderón et al., 2003, Calderón and Servén, 2004; Servén 2007, Kirkpatrick et al., 2006). Between 1980–1985 and 1996–2001, total expenditure on infrastructure investment in seven major Latin American economies taken together declined from a weighted average of 3.7% of GDP to 2.2%, even though private investment (primarily by TNCs) in the industries actually rose from 0.6% to 1.4% of GDP (Calderón and Servén, 2004), albeit with considerable differences between countries.¹² An important lesson from the Latin American experience is that TNC participation should not be considered sufficient to meet a country’s investment needs in infrastructure; rather, it should be viewed as an important supplement and complement to domestic investment. Developing countries should therefore strengthen and improve the capabilities of their State-owned enterprises (where these continue to play a role), while at the same time encouraging their domestic private sector to develop the necessary expertise and financial capabilities to participate effectively in infrastructure industries (chapter V).

Variations in the impact of TNC involvement on investment, by industry, region and country. As mentioned earlier, investments by TNCs in infrastructure projects in developing countries amounted to \$246 billion during the period 1996–2006, or an average of 28.5% of total investment commitments (figure III.1). This share indicates an appreciable contribution by TNCs to infrastructure investment in developing countries, as a whole. Differences exist in the degree of TNCs’ impact on the level of investments by industry, region and country, judging from the variations in the shares of TNCs in total private sector infrastructure investment commitments (or PPI investment commitments).

By infrastructure industry, TNCs’ shares in PPI investment commitments during the period 1996–2006, were highest in telecommunications (35.2%) and electricity (30.0%), and lowest in water (25.2%) and transport (19.3%) (figure III.1). Apart from this, according to the World Bank’s PPI database, other notable variations included: (i) a significant drop in the share of TNCs in energy investments in South Asia between 1996–2000 and 2001–2006, primarily

reflecting difficulties faced by India in realizing its strategy towards attracting infrastructure TNCs;¹³ (ii) a decline in TNC participation in the telecommunications industry in East Asia and South-East Asia and Latin America and the Caribbean during the period 2001–2006, reflecting the growing strength of domestic companies in these regions (section III.C);¹⁴ (iii) very large swings in TNC investment commitments in transport in nearly all regions between 1996–2000 and 2001–2006, possibly reflecting developments in a number of the sub-industries involved; and (iv) increases in TNCs’ share in overall private investment commitments in water in some regions and subregions between 1996–2000 and 2001–2006, reflecting the efforts of countries to improve access to safe, clean water for their populations.

Regionally, the share of TNCs in total PPI commitments ranged from 19.8% in Asia in 1996–2006 (with the lowest share in South Asia and highest in West Asia) to 35.5% in Africa and 33.3% in Latin America and the Caribbean.¹⁵ The variation in the share of TNCs in PPI investment commitments during the period 1996–2006 was even greater by country, with 75% of economies (out of 105 for which data are available) indicating a share above the overall average of 28.5% (table IV.1). The overall average share is low because a number of countries with large total investment commitments have below-average figures for the share of TNCs in these commitments, including Brazil, China, India, Malaysia, Mexico and South Africa.¹⁶

In a large number of countries the share of TNCs in total PPI investment commitments is significant: between 28% and 50%; and in a number of them the share is even higher, in the 50%–75% range (table IV.1). Furthermore, for nearly one fifth of countries (20) TNCs’ share in total private sector investment commitments is 75% or more. This group includes 13 LDCs, among them Burundi, Chad, Guinea-Bissau, Haiti, Maldives, Samoa and Sudan.¹⁷ Their high share of TNC participation implies that for many LDCs TNCs are more or less *the* private infrastructure sector.

* * *

TNC participation has mobilized significant financing for the expansion and improvement of infrastructure industries in developing countries, and the consequent impact on investment varies by industry, region and – especially – country. The impact on the level of investment is appreciable, with a 29-fold increase in FDI stock between 1990 and 2006, and considerable investment linked to concession agreements. The importance of TNC participation varies among countries; for example, of the countries receiving the highest amount of foreign investment commitments during 1996–2006, China and South

Table IV.1. TNCs' share of private sector investment commitments in developing economies, all infrastructure industries, 1996–2006

Percentage ranges				
Up to 25%	Between 25% and 50%		Between 50% and 75%	75% and over
Number of countries				
15	61		9	20
Angola	Below 28.5%		Afghanistan	Burundi
Barbados	Argentina	Lao People's Democratic	Cameroon	Chad
Cape Verde	Benin	Rep. of	Congo, Republic	Comoros
China	Botswana	Mauritius	Guatemala	Djibouti
India	Brazil	Mozambique	Jamaica	Dominica
Malaysia	Cambodia	Philippines	Liberia	El Salvador
Mauritania	Colombia	Viet Nam	Madagascar	Gambia
Nepal	Costa Rica		Panama	Grenada
Papua New Guinea	The average TNC share of private sector		Zimbabwe	Guinea
South Africa	investment commitments is 28.5%			Guinea-Bissau
Sri Lanka	Above 28.5%			Guyana
Thailand	Algeria	Iran, Islamic Rep.	Paraguay	Haiti
Trinidad and Tobago	Bangladesh	Iraq	Peru	Maldives
Venezuela, Bolivarian Rep.	Benin	Jordan	Rwanda	Nicaragua
Yemen, Republic	Bolivia	Kenya	Senegal	Samoa
	Burkina Faso	Lebanon	Seychelles	Sao Tome and Principe
	Chile	Lesotho	Syrian Arab Republic	Sierra Leone
	Congo	Malawi	Swaziland	Saint Lucia
	Côte d'Ivoire	Mali	Tanzania, United Republic	St. Vincent and the
	Cuba	Mexico	Togo	Grenadines
	Dominican Republic	Mongolia	Tunisia	Sudan
	Ecuador	Morocco	Turkey	
	Egypt, Arab Republic	Myanmar	Uganda	
	Equatorial Guinea	Niger	Swaziland	
	Gabon	Nigeria	Uruguay	
	Ghana	Oman	Zambia	
	Honduras	Pakistan		
	Indonesia	Palestinian territory		

Source: UNCTAD secretariat calculations, based on the World Bank's PPI Database.

Notes: The PPI database comprises infrastructure projects in developing countries with private sector investment – whether by TNCs or the domestic private sector. The total commitments in the PPI database include investments by TNCs and the domestic private and public sectors. Projects which are 100% public sector funded are excluded.

Africa had low TNC shares in total PPI commitments, but others, such as Egypt and Pakistan, had high shares. Significantly, of the developing countries for which the TNCs' share in PPI commitments exceeded 75%, over half (13 out of 20) were LDCs. Although LDCs do not receive much investment from TNCs, such investment nevertheless constitutes a very significant proportion of private investment in their infrastructure industries.

B. Impact on industry performance and the provision of infrastructure services

TNCs affect the performance of those industries and the provision of those services in which they participate, not only through their impact on investment, and thereby the capital stock for production (section A), but also through other channels. This section examines the impact of TNC participation on host country infrastructure industries through its technological effects (section B.1) and its effects on competition and efficiency of service provision (section B.2). It then considers the overall

impact of TNC participation on the provision of services in the various industries in terms of total supply, price and quality, and access (section B.3). A key question is whether, and to what extent, TNCs help improve the provision of infrastructure services relative to other options available. In attempting to answer this, the analysis considers a number of counterfactuals and their implications.

In developing and transition economies, TNC participation (and private sector participation in general) over the past two decades has often taken place in the context of the market-oriented reform of infrastructure industries. Such reform necessitates the introduction of market elements on both the demand and supply sides of transactions in infrastructure services. On the demand side, it requires changing expectations regarding payment for services such as electricity and water, which are often subsidized, regardless of buyers' incomes, under pre-reform public sector provision. On the supply side, it involves incorporating economic incentives in decision-making regarding policies relating to production, and establishing an effective pricing and collecting mechanism. In addition to the corporatization of State-run public utilities, the entry of TNCs is one option for achieving this end. Many developing countries, especially those with budgetary constraints and limited domestic private

enterprise capabilities in these industries, have chosen this option. Thus, in considering the impact of TNC participation on host country industries and services provision, it is important to bear in mind that the changes observed occur under conditions that differ from the pre-reform conditions in which the earlier State-run public utilities operated. In addition, the specific impact of TNC participation on efficiency¹⁸ and services provision varies by industry, depending on the technological and institutional characteristics of the industry.

1. Technology transfer and diffusion

Limited domestic technological and engineering capabilities, as well as managerial and other expertise, prevent many developing countries from undertaking infrastructure projects and providing related services. Thus in infrastructure, as in other industries, technology transfer is among the most important potential contributions that TNC participation can make to host developing countries.

TNCs in infrastructure bring both hard technology (e.g. specialist equipment for water purification) and soft technology (e.g. organizational and managerial practices or business models) to their operations in host countries. However, infrastructure industries are generally not of a high-tech nature. Therefore, hard technology is not the principal ownership-specific advantage of TNCs in this sector, except in specific niches (such as the knowledge to harness nuclear or geothermal power). More frequently, the competitive advantages of infrastructure TNCs hinge on specialist expertise or capabilities, such as the ability to organize and operate networks, engineering skills, environmental know-how, project management capabilities, financial prowess and managerial expertise (section III.D).

The extent of positive effects arising from technology transfer depends on the degree to which TNCs' expertise is superior to that of domestic firms that could have been involved in a similar way. In fact, in the initial phases of TNC participation in the 1980s and 1990s, private domestic alternatives were lacking in many of the host developing countries, and a number of improvements that occurred in host-country infrastructure industries can be attributed largely to the competitive advantages of TNCs in establishing, managing and operating their infrastructure entities.

As regards hard technology and equipment, in telecommunications, for instance, market entry by international operators from both developing and developed countries has contributed to the rapid diffusion of digital mobile telephone technology across the developing world (Rouvinen, 2006; Ure,

2008; box III.16). This technology has significantly lowered the threshold of access to and usage of information and communication technologies (ICT) for developing countries (UNCTAD, 2007). Similarly, international terminal operators such as Hutchison Port Holdings (Hong Kong, China) and APM Terminals (the Netherlands) (table III.15) have helped improve the efficiency of cargo handling by introducing new equipment and processes in container ports around the developing world, along with the expertise required for their efficient use.¹⁹

TNCs can also help improve productivity and efficiency by transferring soft technology to host country operations. A number of studies show that TNCs that took over State-owned service utilities made changes to processes that reduced costs and delivery times and, in some cases, improved quality standards (World Bank, 2002; Platz and Shroeder, 2007). Changes introduced included re-engineering of operational processes, improving procurement and subcontracting practices, and enhancing client records and collection methods.

Overall, studies show that the introduction of hard and soft technologies by foreign affiliates has helped enhance labour productivity in services provision in a number of cases. In Latin America, for instance, between 1994 and 2000 labour productivity increased by about 6% annually among privatized electricity distributors, most of which involved TNC participation, partly because of reorganization of operations (Estache and Rossi, 2002). (However, improved technology and enhanced productivity may also lead to retrenchments in the labour force, as discussed in section C.) Another study on Latin America found that labour productivity increased significantly for privatized fixed telephone services, electricity and water supply, as TNCs improved the systems in place (Andres et al., 2005). In India, labour productivity in port terminal operations rose dramatically after the participation of TNCs, which led to the introduction of newer technology and human resource management practices (Nazareth, 2008). In mobile telephony in some African countries, productivity measured by subscribers per employee has risen significantly after TNC entry, and it tends to be higher than in developed countries (Minges, 2007).²⁰

Looking beyond pure productivity and efficiency considerations, the introduction of technology by foreign affiliates has also helped improve the reliability and quality of service provision in a number of cases. Poor quality of services and inadequate maintenance of networks were often the most serious problems in earlier public provision of infrastructure services in developing and transition economies, even in some relatively high-income economies. Case study evidence on the results of

TNC-involved privatization and concessions in infrastructure industries show improvements in the reliability and quality of service provision as a result of investment in new hardware, systems and training (World Bank, 2001; Shirley, 2002; Jerome, 2004; UNCTAD, 2007g; Nazareth, 2008).

The industry-wide impact of technology transfer by TNCs also depends on their transmission of technology to other firms in the industry. To the extent that technologies and knowledge are firm-specific, the potential for wider dissemination may be more limited in the case of wholly-owned foreign affiliates, as compared with other modalities of TNC participation, such as joint ventures or non-equity participation.²¹ In China's electricity generation industry, for instance, TNC participation in large joint-venture projects has involved systematic and comprehensive project management cooperation between foreign investors and their Chinese counterparts, enabling the latter to enhance their expertise and efficiency (Wang, 2008). The capabilities and experience-based knowledge of TNCs in managing large-scale projects in China have enabled their local partners to acquire knowledge of, and adapt to, international standards and processes, including feasibility studies, project planning, migrant relocation, environmental protection, transparent bidding procedure and efficient project management.²²

In addition to the above-mentioned cooperative arrangements, there are other, less visible, channels for knowledge transfer from foreign affiliates to domestic firms in infrastructure, including spillovers of various kinds that may be particularly important in infrastructure industries in which firm-specific advantages are often in soft technology. Mobility of personnel from foreign affiliates to domestic enterprises is one example of a spillover; the demonstration effect is another. Regarding the latter, in some cases, even when the scope of TNC participation in an infrastructure industry has been limited, it has provided examples of high-quality service provision and exposed local competitors as well as regulators to international "best practices" in service provision, network maintenance and quality control. The influence of the demonstration effect is evident in a number of infrastructure industries in India, including telecommunications and transportation. For instance, in India's port industry, the high performance of TNCs has set a standard for the country's emerging domestic private operators in seaports, such as Reliance, Gammon and Adani, to strive for a similar international "best practice". Reliance Communications and Tata Communications have emerged as international players, partly as a result of the strong demonstration effect of telecommunications TNCs in the domestic market (Nazareth, 2008). Importantly, for spillovers such as

the demonstration effect to occur, existing capable domestic enterprises are essential.²³

In developing countries, in recent years, an increasing number of domestic private firms, often minority partners in TNC-led projects, have acquired the knowledge necessary to operate in infrastructure industries. Even without the direct participation of TNCs, domestic firms can build technological capabilities and improve services provision based on their own efforts, provided they have clear objectives and can invest in the necessary expertise.²⁴ For instance, the case of domestic private power producers in Mauritius demonstrates the potential technological capability and viability of local private enterprises (box IV.2).²⁵ An alternative is to enlist the support of international engineering and design companies such as Atkins (United Kingdom), BCEOM (France), Mott McDonald and Parsons Brinkoff (both United States), which have increasingly become important suppliers of skills and know-how in infrastructure industries. For example, all the above-mentioned engineering and design companies have established subsidiaries in India, that serve both domestic and international clients (Nazareth, 2008).

2. Effects on competition and efficiency

Where the potential for competition exists, TNC entry into infrastructure industries through greenfield investments can increase competition, and thus, efficiency. Generally speaking, the higher the contestability of a market for the services provided by an industry or industry segment, the more likely it is that TNC participation could contribute to enhanced efficiency via increased competition. Due to the specific features of infrastructure industries, however, the contestability of the industries is often seriously constrained (section III.A.1), and the effects on competition vary considerably by industry and host country.

In *mobile telephony*, technological progress – coupled with institutional changes and related market entry opportunities – has eroded the former natural-monopoly structure of the telecommunications industry. In many countries, a more or less competitive market structure has been established in the process of telecommunications reforms, including in LDCs such as Cambodia and the Lao People's Democratic Republic, very often as a result of greenfield TNC entry. Table IV.2 provides some examples of the estimated market share ranges of mobile operators – most of which are TNCs – in selected developing countries. TNC entry in the absence of sufficient numbers of domestic competitors has helped enhance competition, contributing to improved economic

Box IV.2. The potential for independent domestic power producers: the case of Mauritius

In the reform of electricity industries in many African countries, local private participation has been limited, often hampered by the technology- and capital-intensive nature of large-scale projects (ECA and UNEP, 2007). However, the Mauritian example shows that this need not be an insuperable obstacle. This country provides a model example of the potential role that domestic independent power producers can play. Indeed, as much as 40% of electricity generation in the country is undertaken by domestic, privately owned and operated bagasse-based cogeneration plants.^a Initially, domestic firms were only capable of undertaking projects based on conventional technologies with an investment of about \$4 million and an installed capacity in the range of 10–15 megawatts. Based on steady technological progress, domestic firms, in technology partnerships with foreign investors, have been able to construct a \$100 million high-tech, high-pressure cogeneration power plant with an installed capacity of 70 megawatts.

Source: UNCTAD, based on ECA and UNEP, 2007.

^a Cogeneration refers to the generation of electricity and thermal energy in a single, integrated system.

performance. This is reflected, for instance, in higher efficiency and lower prices. In Uganda, for example, competition between Uganda Telecom (State-owned, but partially privatized), Celtel (the Netherlands) and MTN (South Africa), has been intense (Econ One Research, 2002; Farlam, 2005). This had led to price reductions and a rapid increase in mobile penetration: from two subscribers per 1,000 inhabitants in 1998 to 31 per 1,000 in 2003. In 2006 the Government lifted a moratorium on new licences, and competition is intensified.²⁶ Consumers may benefit more, e.g. because of the entry of Reliance Communications (India) which has considerable experience in serving low-income customers in India.

On the other hand, experience in parts of the developing world demonstrates that the entry of TNCs into a country's telecommunications industry may be associated with significant market power. Two companies, Telefonica (Spain) and Telmex (Mexico) (with its sister firm America Mobile), have established strong positions in some key markets in Latin America (Mariscal and Rivera, 2005).²⁷ In Indonesia, the strong market position of ST Telemedia (a subsidiary of Temasek Holdings, Singapore) led to an antitrust suit against the company in 2007, leading it to sell its stake in the Jakarta-based PT Indosat.²⁸ Market dominance by TNCs can occur especially in small-sized developing countries, due to the small size of their telecommunications markets.²⁹ Thus, even in telecommunications, host country governments cannot assume that competition will occur automatically as a consequence of TNC entry; they need to play a proactive role in introducing and safeguarding competition by developing appropriate policies and regulations (chapter V).

Some studies show that privatization in telecommunications, including that involving TNC entry, can contribute significantly to enhancing the industrial performance of telecommunications, as measured by output growth, network expansion and productivity improvements (Ramamurti, 1996; Petrazzini and Clark, 1996; Ros, 1999; Li and Xu, 2002). A number of studies have examined

the relationship between privatization, regulation and competition. They have demonstrated the complementarities between privatization and competition, in that competition increases the gains from privatization and vice versa (Newbery, 1997; Ros, 1999; Wallsten, 2000a). In particular, the modalities of privatization and TNC entry related to different degrees of competition can influence the extent of performance improvements (Li and Xu, 2002).³⁰

In the *electricity industry*, the extent to which competition can be injected into services provision varies, depending on the segment of the value chain – generation, transmission or distribution (table III.2).³¹ In Asian countries such as China, Indonesia and the Philippines, TNC participation has been steered to investment in electricity generation through greenfield investments. The establishment of foreign-invested power plants has enhanced competition and helped improve efficiency to meet the rapidly growing demand for electricity (Bacon, 1999; Nikomborirak and Mannachotphong, 2007). In contrast, in Latin American countries such as Argentina, Bolivia and Peru, TNCs have participated in all three segments of the electricity industry in the privatization process, which was initiated with the specific objective of reducing system losses in electricity distribution (Bacon and Besant-Jones, 2001; Besant-Jones, 2007). In these countries, initial performance improvements were significant (table IV.3), but they did not always translate into price reductions and wider access to services (section B.3).

In other industries as well, governments need to be diligent in maintaining competition to the extent possible. For example, in Chile, a competitive electricity generation market was established during the privatizations of the 1980s. However, the Chilean Government did not place sufficient safeguards on the anti-competitive potential of a cross-ownership of assets in different segments of the electricity industry. After privatization, a foreign affiliate (Enersis) gained control of the three segments of one of the country's two major electricity systems³² (Lalor and Carcia,

Table IV.2. Estimated market share ranges of mobile telecommunications operators with TNC participation in selected countries, end 2007

Region	Country	Market share				Number of competitors
		50% and over	25% – 50%	10% – 25%	Less than 10%	
Africa	Dem. Rep. of the Congo	–	Vodacom	Millicom	–	4
	Ghana	MTN	Celtel	CCT	–	4
	Tanzania, United Rep. of	–	Millicom	Ghana Telecom	Hutchison	4
Asia	Cambodia	Millicom	–	Vodacom	Zantel	5
			–	Celtel	–	TTCL Mobile
	Lao People's Dem. Rep.	Lao Telecom	–	Camshin	Appliphone	4
	Sri Lanka	–	Dialog	Shinawatra	–	4
LAC	El Salvador	–	Millicom	Millicom	Hutchison	4
	Bolivia	–	Entel	Mobitel	–	3
	Colombia	América Móvil	–	Millicom	Intelfon	5

Source: UNCTAD, based on Millicom, Annual Report for the period ending 31 December 2007.

1996). This led to concerns over anti-competitive behaviour due to vertical integration, and consequent intervention by the Prosecutor's Office and the Antitrust Commission as early as 1992 (OECD, 2004). It also prompted a number of antitrust trials (Basanes et al., 1999), and eventually a reform of the law with two amendments, in 2004 and 2005 (Arellano, 2008).

In *water supply*, which is generally still a natural monopoly, the entry of TNCs runs the risk of State monopolies being turned into private foreign-owned ones (Kirkpatrick et al., 2006). The room for enhancement of allocative efficiency as a result of a higher degree of competition is therefore limited. In the context of market-oriented reforms, however, TNC entry may still help improve the efficiency of services provision by replacing inefficient operations with ones that have stronger organizational and managerial capabilities and can respond to incentives (section B.1).³³

While the entry of TNCs may increase competition and thus efficiency in some markets for infrastructure services, it may also preempt the entry of domestic players or crowd out existing ones. For example, in fast growing industries such as *mobile telephony*, where TNCs are major players in many developing countries (such as in Africa and Latin America), domestic players may not be able to emerge. This is partly because they would not be able to match the price and services that foreign affiliates offer. Similarly, in power sector reforms in many African countries, current trends indicate that the State is handing over large segments of

the electricity industry to foreign operators. This may be necessary in the short run because of insufficient indigenous technology and expertise to ensure essential services, but for the long term governments and the private sector need to work towards improving relevant domestic capabilities (ECA and UNEP, 2007).

In many LDCs, the capabilities of domestic private enterprises are often too low for them to be able to enter segments of the electricity industry in the near future, but it is

possible to work towards local private participation, for example in the development of independent power producers (IPPs). Indeed, vertical unbundling (section III.A.1) provides possibilities for governments to introduce competition in electricity generation and to allow the entry of IPPs. However, there are no IPPs at all in some LDCs, including Botswana, Burkina Faso, Eritrea, Ethiopia, Lesotho, Malawi, Namibia and Niger, largely because of a lack of local capabilities (ECA and UNEP, 2007).

In some developing countries where domestic capabilities exist, local private participants can enhance their competitiveness and efficiency by collaborating with TNCs in a variety of ways. For example partial privatization, with minority ownership participation by TNCs, has been implemented by many developing countries, with favourable results for competition. For instance, Maroc Telecom (Morocco) became a competitive enterprise and, indeed, a TNC in its own right³⁴ through such a process.³⁵ In China, infrastructure investments with TNC participation are usually joint ventures between foreign TNCs and State-owned enterprises,

Table IV.3. Indicators of performance improvements in electricity by distributors in Latin America: changes in selected indicators from the year of privatization to 1998
(Per cent)

Company	Host country	Year privatized	Parent company (home country)	Annual sales	Energy losses	Customers/employee	Bad debts (% sales)
Chilectra	Chile	1987	ENERSIS, a subsidiary of ENDESA (Spain)	26	-70	37	-88
Edesur	Argentina	1992	ENDESA (Spain)	79	-68	180	-35
Edenor	Argentina	1992	EDF (France)	82	-63	215	..
Luz Del Sur	Peru	1987	Peruvian Opportunity Company (United Kingdom/the Netherlands)	19	-50	135	-65

Source: UNCTAD, based on Besant-Jones (2007) and company websites.

with improvements in efficiency in the relevant firms (Wang, 2008). In India, the reform of the electricity sector triggered the emergence of domestic private electricity companies such as Tata Power, Reliance Power and Torrent Power, most of which entered the sector by establishing joint ventures with TNCs in the domestic industry during the 1990s (Nazareth, 2008). In other cases, various private-public partnership (PPP) arrangements have allowed governments in developing countries to retain their ownership of assets, while contracting TNCs or domestic private players to improve performance in service provision (chapter V).

As an alternative to TNC involvement, some developing countries have been able to improve the performance of public utilities through corporatization reforms,³⁶ without direct TNC participation. In telecommunications, some State monopolies have been transformed into companies listed in domestic and international stock markets through public offerings: corporatized firms such as China Mobile and China Telecom have been able to enhance their performance and provide sound services to the public (Ure, 2008). In water and electricity, significant performance improvements have also been achieved without the involvement of TNCs, as in the case of Ugandan National Water and Sewerage Corporation (UWSC), which has a performance contract with the Government (Muhairwe, 2007).³⁷ Furthermore, a number of SOEs have become competitive global players: in Singapore, for example, Singtel and PSA International³⁸ are leading TNCs in their respective industries (*WIR06*).

However, in some instances, corporatization reforms have failed (World Bank, 2005),³⁹ which underlines the need for caution when undertaking counterfactual analyses of TNC impacts relative to the alternatives available. It is important to ensure that such analysis are conducted on a realistic basis: many successful cases are reliant on specific national or local conditions, which may not be easily replicable. For instance, Singapore has been successful in nurturing State-owned infrastructure TNCs, but this was based on nearly two centuries of developing trade-orientated infrastructure assets and associated expertise. Furthermore, since the 1960s, the Singapore Government has had a sustained vision of the island State's infrastructure strategy along with the funds to realize it (Mirza, 1986; Williamson, 2004). Similarly, City Power (South Africa) has been successfully transformed into an efficient State-owned electricity enterprise, but this is more feasible in a large city such as Johannesburg, where power demand is growing at over 20% a year and the necessary human and other resources are available, than in an LDC (section III.A.3).

Finally, while TNC participation in an economy's infrastructure industries can enhance

competition in some markets and help introduce competitive elements into others that are akin to natural monopolies, it also exposes the country to certain risks. A major problem is that of frequent renegotiation of contracts in projects involving TNC participation (box IV.3). There has been a high incidence of such renegotiations, particularly in electricity and water. Renegotiation can be a useful instrument to tackle issues arising from the inherently complex nature of infrastructure contracts, and it is not an unusual occurrence (Harris, 2003). However, government decision-makers need to take into account the fact that excessive renegotiations, and the withdrawal of TNCs, that sometimes follows failure to reach agreement, may have implications for the industries concerned (chapter V).

3. Impact on provision of services and implications for universal access

For host country users of infrastructure services – households as well as enterprises – the final outcome of TNC involvement in those services is reflected in its impact on the quantity, quality and price of the services. To the extent that TNC participation enhances the supply capacity of infrastructure services through investment, and strengthens their technological and/or organizational and managerial capabilities, it expands the coverage of infrastructure networks and the total volume of services delivered. The increase may include expansion of existing services as well as introduction of new services, and, as noted earlier, it can also result in improved quality of services. More importantly, TNC participation can influence the prices of infrastructure services, the direction and extent of which depend on a number of factors, including the impact on supply as well as market structure, the degree of competition, contractual obligations, and the regulations prevailing in each infrastructure industry.

In addition to the impact on the overall conditions of supply of services, as indicated by changes in quantity, quality and price, the access dimension of infrastructure services provision needs to be considered. Ensuring universal access to such services, especially drinking water and electricity, remains one of the greatest development challenges for national and local governments, as well as for the international community (WHO and UNICEF, 2004; Platz and Schröder, 2007). Such access is considered essential for assuring and maintaining a basic or minimum acceptable standard of living for human beings and, moreover, has significant externalities.⁴⁰ Increased telecommunications and transport services also have substantial externalities and various indirect socioeconomic effects. The challenge of universal

Box IV.3. Risks, renegotiations and TNC withdrawals: implications for performance

Many economic, social and political factors underscore the risky nature of infrastructure industries, particularly those with significant natural-monopoly features, from both corporate and host country perspectives (section III.A). Some of the risks may be aggravated when investors based in foreign countries undertake investments in low-income countries. Systematic evidence comparing the failure rates of infrastructure projects undertaken by domestic and foreign players respectively is lacking, but there has been a high incidence of contract renegotiation in projects with the participation of TNCs, especially in Latin America.

When used opportunistically or strategically by an investor or a host country to secure additional benefits, the demand for renegotiation undermines the integrity of the contract, reduces welfare and threatens desired structural reform programmes in infrastructure (Guasch, 2004). It may also lead to investor-State disputes, with firms seeking financial remuneration in international tribunals (chapter V). A high incidence of renegotiations that exceeds expected and reasonable levels is particularly costly. Renegotiations also affect the performance of infrastructure industries, as the obligations of the parties involved in major projects and the conditions of service provision may change, which may influence the continuation and affordability of services.

Risks have also led to withdrawals by TNCs from developing countries, and hence influenced the performance of the relevant industries. For example, some TNCs with a presence in the Latin American electricity industry have announced their intention to retreat, and some of them have gradually divested their businesses in the region.^a The withdrawal of TNCs has not been limited to Latin America; they have also divested in other developing countries such as India (section III.C; Nazareth, 2008). This highlights the non-commercial risks related to TNC participation in infrastructure industries, especially – but not exclusively – related to economic crises in the developing world, such as the Argentinean financial crisis. The withdrawals of TNCs have also been partly due to home and host country policy changes, for example following political opposition to electricity privatization after the California power crisis and the Enron scandal in the United States (Hall, 2007).

Source: UNCTAD.

^a For example, PPL (United States) and Sithe Global Power (an affiliate of the Blackstone Group (United States), a private-equity firm), withdrew from their investments in Brazil's electricity industry, and AES (United States) threatened to do the same (Besant-Jones, 2007). Companies such as EDF (France) have gradually divested from Latin America. However, the holdings of the largest TNCs in the industry have remained fairly stable in recent years, partly because it has been difficult for them to find buyers (Hall, 2007).

access is the most acute in low-income countries (section III.A.2).

For users and consumers, access to infrastructure services depends on their availability and affordability, both of which can be influenced by the participation of TNCs in infrastructure industries.⁴¹ The *availability* of services is determined by the total supply of infrastructure services as measured by the size or extent of networks and the connections for serving potential users. It is also influenced by the location of service facilities in relation to consumers: those living in remote areas are less likely to be connected. By influencing the level of investment (section IV.A) and the productivity and efficiency of services provision, TNC participation can affect both the extent and the geographic scope of infrastructure networks. The *affordability* of services is jointly determined by the price of services and the disposable income of consumers in an economy. The impact of TNC participation on access to services can therefore differ among segments of a society, depending mainly on the level of their income as well as the location of their habitation. Thus improvements in industry performance do not necessarily translate into increased availability and affordability of services for all members of a society, especially the poor and those living in rural, remote and economically deprived areas.

At the heart of the issue of universal access lies the pricing of services. In considering the implications of the impact of TNC participation for universal access, the key question is the extent to which improvements in efficiency, if any, due to such participation translate into lower prices that can help increase access for lower income groups. As most infrastructure industries are regulated, both market forces and government policies influence prices. Because of political and social considerations, governments in developing countries have had a long tradition of holding prices below the costs of production; under public ownership, the gaps were either made up by transfers from public finances, or by lack of spending on maintenance of assets, causing them to deteriorate (Harris, 2003).⁴² The price impact of TNC involvement thus depends not only on the impact on supply, but also on the extent to which effective market competition or regulation of prices allow gains to be passed on to customers. It also depends on the level of prices (relative to the level of costs) that prevailed under the previous market and regulatory regimes.

Drawing upon available evidence, the discussion below focuses on the overall impact of TNC participation in infrastructure industries on services provision in terms of supply and coverage (or availability), quality and price, as well as on access to

services for the poor. The divergent effects of TNC participation are explained largely by differences in the host country and industry contexts. In particular, there is significant variation by industry.

a. Electricity

Evidence from a number of developing countries suggests that increased investment due to privatization – often with TNCs involved – has led to greater supply capacity and network connections in electricity. For example, in Chile, capacity measured in megawatts increased 2.5 times and the length of transmission lines doubled between 1982 and 2002 (Kessides, 2004).⁴³ Unstable supply and inadequate maintenance of the distribution network are often the most serious problems in the provision of electricity in many developing countries.⁴⁴ Following privatization, frequently involving TNCs in the 1990s, there were steady improvements in the reliability and quality of service provision in the electricity industry in many developing countries (Gassner, Popov and Pushak, 2008b; Jerome, 2004). In Chile, for example, the time for emergency repair service fell from five hours in 1988 to two hours in 1994, and power outages caused by transmission failures as well as power losses fell steadily (Kessides, 2004).

Evidence of the impact of TNC participation on prices, and thereby on access to electricity, is mixed, partly because prices reflect political and social, as well as economic, considerations. Prices of electricity provided by State enterprises do not necessarily reflect costs and are often subsidized. To attract private investors, some host country governments increased or allowed increases in tariffs, as in Brazil and Nigeria (Santos et al., 2008; Ezeobi, 2008), at the same time as they implemented other reforms, which included allowing private or foreign participation in order to sustain or increase investments and/or recover costs.

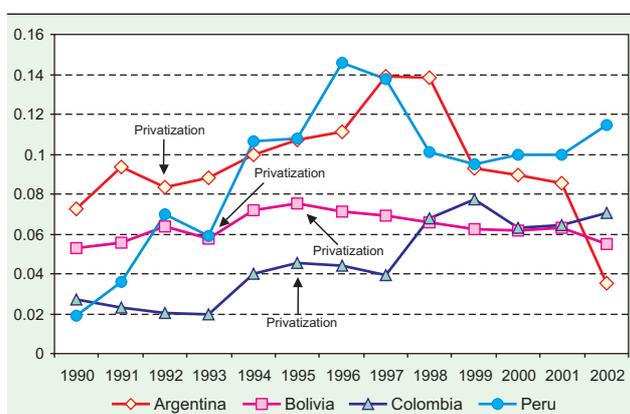
However, it is not always politically feasible to do this. For instance in India, when State electricity boards signed contracts with eight independent power producers (IPPs) (all with TNC participation) to purchase the output of the latter at agreed prices during industrial reforms in the early 1990s, the Central Government had to issue guarantees that it would meet any shortfalls in payments. Such shortfalls could occur, for instance, if the State electricity boards or local State governments were unable to raise electricity prices charged to consumers, resulting in insufficient revenue to pay the IPPs the agreed amounts (Nazareth, 2008).⁴⁵ Underscoring this point, a recent study comparing over 250 electricity utilities in private and public ownership in 53 developing and transition economies, found no systematic

change in prices as a result of privatization/TNC entry (Gassner, Popov and Pushak, 2008b). The study argues that political difficulties in raising prices was a factor explaining this finding.

In the longer term, efficiency gains that reduce the unit costs of production may help drive down the price of electricity, but not necessarily below subsidized levels. In Chile, for instance, prices fell by 25% between 1988 and 1998 (Estache, Lobo and Leipziger, 2000). However, price changes in a number of other Latin American countries that adopted a similar model of sector reform as Chile did not show a systematic trend (figure IV.1), which is consistent with the findings of some studies, such as Gassner, Popov and Pushak, 2008b mentioned above. In Argentina, for example, TNCs entered the country's electricity industry through privatization programmes during the 1990s. The initial impact was beneficial overall: supply capacity rose, and the price of electricity (denominated in pesos) fell. However, at the end of the 1990s, prices began to rise as a result of the indexation mechanism which had been negotiated in United States dollars and indexed according to inflation rates. By 2004, the country was again facing power shortages as the demand for electricity increased, but supply became erratic following the electricity price freeze (in nominal pesos) in 2002 (WIR04).

Overall, TNC involvement in the industry has improved the supply conditions of electricity by increasing network connections, reducing the cost of production and improving quality of delivery. However, the direction of price changes varies, depending on a number of factors, including political, social and contractual ones, as well as the degree of productivity and efficiency gains. In a number of cases, efficiency gains in electricity translated into higher profits for firms or lower government spending

Figure IV.1. Electricity prices for household users, selected Latin American countries, 1990–2002
(\$/kWh)



Source: UNCTAD, based on data from the Latin American Energy Organization.

on subsidies, rather than a fall in prices (Gassner, Popov and Pushak, 2008b).

b. Telecommunications

Improvements in supply and coverage of services due to increased investment and enhanced efficiency in developing countries by TNCs have been particularly significant in the telecommunications industry. For example, in Latin America, three countries that privatized in 1990–1991 with different degrees of TNC involvement – Argentina, Mexico and Bolivarian Republic of Venezuela – achieved much faster expansion of telecommunication lines during the period 1989–1994 than countries with State-owned monopolies, at that time Brazil, Colombia, Ecuador, Peru and Uruguay (Kessides, 2004). This was despite the fact that the former group granted 6 to 10 years of monopoly rights to private operators. Chile, which privatized the State operator, as well as introducing competition by issuing additional telecommunications licences to a number of companies, achieved even faster expansion during the same period. Rapid line expansion occurred in Brazil after it opened up the telecommunications industry to foreign investors in the second half of the 1990s. The number of fixed lines in the country rose from 15 million in 1995 to 50 million in 2003, and mobile telephony surged from 1.4 million subscribers in 1995 to 50 million in 2003. This made the country the fifth largest telephone market in the world (UNCTAD, 2005). Privatization (including to foreign investors) and competition were found to act better together than either factor alone in expanding capacity in telecommunications, according to studies covering a large number of developing countries (Wallsten, 2000a; Li and Xu, 2002).

Expanded telecommunications connections following privatization and TNC participation have generally been accompanied by improved quality of services. In Brazil, for example, standard measures of quality in the industry, such as the network digitalization index, the average waiting time for a dial tone, and the number of repair orders placed per 100 public telephones, improved significantly after privatization to foreign investors in the second half of the 1990s (UNCTAD, 2005). In Argentina, the quality of telecommunications services improved markedly after TNC entry (Estache, 2002).⁴⁶ In several other developing and transition economies (e.g. Chile, Côte d'Ivoire, Ghana, Malaysia, Mexico, the Philippines and Romania), competition from TNCs, in addition to privatization, proved instrumental in improving the quality of services, as well as stimulating supply and innovation and lowering prices (UNCTAD, 2005).

FDI in telecommunications, especially in mobile telephony, has contributed to expanded availability and the enhanced affordability of

services in many developing regions and countries (Fink, Mattoo and Rathindran, 2002; *WIR04*). In the 1990s, inward FDI played an important role in broadening the availability of telecommunications services in Latin American countries (ECLAC, 2000; Mortimore, 2003). Similarly, in recent years, driven by the entry of TNCs, Africa has experienced a “mobile revolution” (box III.16), with availability of mobile services expanding rapidly. In many low-income African countries, such as Côte d'Ivoire, Equatorial Guinea, Ghana and Uganda, cost-effective wireless technologies have reduced subscription prices, sometimes to lower levels than those of fixed lines (ITU, 2007a; Waverman, Meschi and Fuss, 2005), thus enhancing affordability. In addition, new business models introduced by TNCs have enabled the expansion of mobile services into low-income segments. This expansion has been facilitated, in particular, by affordable prepaid subscriptions (sometimes with users sharing a subscription) that have accounted for the bulk of Africa's (as well as South Asia's) mobile telephony market in 2007 (de Silva et al., 2008).

In Africa, the entry of TNCs has also helped some remote areas to gain access to telecommunications, where, previously, national providers had not regarded them as serviceable and profitable (Gillwald, 2003). The case of Uganda shows that government policies can influence the contribution of TNCs to universal access, including in rural areas, at least in the case of mobile telecommunications services (box IV.4; chapter V). Furthermore, TNCs have created mobile telecommunications markets at the subregional level by removing traditional roaming charges (ITU, 2007a). Since the launch of One Network in East Africa by Celtel (registered in the Netherlands) in September 2006, six countries – Congo, the Democratic Republic of the Congo, Gabon, Kenya, Uganda and the United Republic of Tanzania – are covered by the world's first borderless mobile network (UNCTAD, 2007l).

During the past decade, mobile telephony has emerged as a principal gateway for increased ICT access and usage in low-income countries (UNCTAD, 2007l). Table IV.4 lists developing countries that have made the most improvements, as measured by the UNCTAD ICT Diffusion Index, between 1997 and 2005. Most of the top performers have significant FDI and TNC involvement in their telecommunications industries.

While access to mobile telephony has improved considerably, this is not the case for all telecommunications services. For example, Internet connections, and particularly broadband, can significantly increase access to information, but prices remain high for consumers in many developing countries, and access is limited (ITU,

Box IV.4. The impact of TNC entry on telecommunications coverage in Uganda: how government policies can influence the outcome of TNC participation

Until recently, two TNCs, Celtel and MTN, and one partly privatized domestic enterprise, Uganda Telecom, were the only operators in Uganda's mobile telephony market. The licence contracts for the two "national operators"^a – MTN and Uganda Telecom – required the companies to provide full coverage in the entire country and meet roll-out targets in both rural and urban areas. This was in addition to other requirements, such as complying with price caps. Failure to meet coverage targets could entail penalties of up to 10% of companies' gross revenues (Econ One Research, 2002; Farlam, 2005). Initially, the two operators underestimated the importance of the rural market. With the expiry of their duopoly in 2006, following the end of a Government-imposed moratorium on new licences, the operators have been competing in expanding services to rural areas by intensifying their network installation efforts (UNCTAD, 2008f). For instance, the number of subscribers with Uganda Telecom has been grown rapidly in recent years, reaching 1 million in January 2008,^b as the company has also tried to offer its extended network services at affordable prices.

Source: UNCTAD.

^a Celtel is licensed to operate only in the southwest of the country.

^b Uganda Telecom at: www.utl.co.ug.

Table IV.4. Top 10 countries by change in UNCTAD ICT Diffusion Index,^a 1997–2005

Economy	Rank			TNC involvement
	1997	2005	Change	
Jamaica	92	59	33	Incumbent fixed-line operator (82% owned by Cable and Wireless (United Kingdom). Mobile operators owned by Digicel (Ireland), America Movil (Mexico) and incumbent.
Guyana	98	73	25	Incumbent 80% owned by Atlantic Tele-Network (United States). Mobile operators owned by incumbent and Digicel (Ireland).
Jordan	106	84	22	Incumbent 51% owned by France Telecom. Mobile operators owned 97% by Zain (Kuwait), Batelco (Bahrain) and incumbent.
Paraguay	103	82	21	Four mobile operators owned respectively by Millicom (Luxembourg) (100%), America Movil (Mexico) (100%), KDDI (Japan) (70%), and Telecom Argentina (68%).
Morocco	147	126	21	Incumbent 53% owned by Vivendi (France). Mobile operators owned 64% by Telefonica (Spain) and Portugal Telecom and incumbent.
Barbados	41	21	20	Incumbent 81% owned by Cable and Wireless (United Kingdom).
China	112	92	20	Leading operators have American depository shares (ADS) listed on the New York Stock Exchange. China Mobile is 3.3% owned by Vodacom (United Kingdom). China Netcom is 7% owned by Telefonica (Spain).
Maldives	96	79	17	Incumbent 45% owned by Cable and Wireless (United Kingdom). Mobile operators 100% owned by Wataniya (Kuwait) and incumbent.

Source: UNCTAD.

^a The ICT Diffusion Index is designed to evaluate ICT development using indicators of ICT diffusion across countries (UNCTAD, 2006c). It measures the average achievements in a country in terms of ICT connectivity and access.

2007b; UNCTAD, 2007g). Furthermore, ensuring that sufficient services are provided in rural, remote and economically deprived areas remains a challenge. In parts of Africa, for example, the rapid growth of pre-paid mobile phone services has reached some rural areas, but still remains more of an urban phenomenon (Shanmugavelan and Warnock, 2004; McCormick, 2005).⁴⁷

c. Transport

The participation of TNCs has helped extend transport networks, and build or improve transport utilities in some developing countries. It has also introduced new transport and related value-added services to household and commercial users. For example, international infrastructure companies in the transport industry have introduced new services in the area of logistics and helped meet evolving transport demand in China (Wang, 2008).

In the ports industry, the participation of international operators has contributed significantly to the development of seaports and terminals and to the growth of capacity and throughput in some developing countries. In China, for example, container terminals with foreign participation accounted for 64% of all berths and 72% of the total traffic capacity in 2007.⁴⁸ There were similar developments in India,⁴⁹ Malaysia⁵⁰ and the Dominican Republic.⁵¹ International terminal operators have also considerably improved the quality of services in major ports in many other developing countries, including Djibouti, Indonesia, Pakistan, Peru, Senegal and Viet Nam over the past decade (UNCTAD, 2007i; Valentine, 2008).

In roads, highways and railways, TNCs have helped expand transport networks in all developing regions (ESCAP, 2007; IADB, 2006; ICA, 2006). In India, for example, the Government launched the National Highway Development Programme (NHDP) in 1999 to build national expressway connectivity in the country. By the end of 2007, 15 foreign companies from 8 countries were involved. In some countries, connecting remote areas to transport networks has improved. For instance, TNCs have been participating in the rapid development of transport infrastructure in the western regions of China, connecting some remote and economically backward areas in provinces such as Guangxi, Shanxi and Sichuan to the country's expressway network.⁵²

TNCs are also involved in the development of transport corridors for facilitating trade and transportation links aimed at improving regional integration,⁵³ especially in Africa. For example, South Africa, Mozambique and other countries in Southern Africa have promoted the establishment of the Maputo Corridor with substantial public and private (including foreign) investments. This is designed to stimulate sustainable growth and development in the area.⁵⁴ An important element of this initiative was the 15-year concession in 2003 of the Port of Maputo to the Maputo Port Development Company (MPDC), a joint venture between a consortium headed by Mersey Docks (United Kingdom) and the Government of Mozambique.⁵⁵ It has contributed to significant improvements of the port facility as well as its road and rail links.⁵⁶ Considered an achievement for both Mozambique and the New Partnership for Africa's Development (NEPAD) as a whole, MPDC was the first PPP project involving a port authority in Africa.

d. Water and sanitation

TNC participation (as well as private participation generally) is much lower in water and sanitation than in other infrastructure industries in developing and transition economies (section III.B). Moreover, TNC investments in water, mainly in the form of concessions, are concentrated in a relatively small group of countries (box III.7). Their experience throws light on some aspects of the impact of TNC participation on services provision and its implications for universal access.

Given the limited involvement of TNCs in this industry, their impact in terms of increases in quantity supplied, measured in terms of connections, has been modest. However, there is evidence that well-designed schemes for TNC participation in water services have led to significant service expansion in the years following privatization in Latin America, Africa and Asia (Harris, 2003). For example, in Morocco, the coverage provided by private concession operators (all TNCs) has improved: between 1997 and 2002 the number of people served under the first concession increased from 440,000 to 590,000, with a tariff only slightly higher than that of public sector operators (Pérard, 2008). In addition, a number of case studies demonstrate that the quality of water supply improved after the entry of TNCs (World Bank, 2001; Shirley, 2002; Jerome, 2004).

Water tariffs traditionally have been kept low by governments (through subsidies and other policies).⁵⁷ In such circumstances, private sector participation (including that of TNCs) can be expected to result in price increases; indeed, this has been observed in some cases (Pérard, 2007; ECA and UNEP, 2007).⁵⁸ However, overall there was no systematic change in

water prices observed as a result of private sector/TNC participation in a recent analysis of 977 public and private water utilities in 48 developing and transition economies (Gassner, Popov and Pushak, 2008b). In the case of Aguas Argentinas (which was 40% foreign-owned), the water concession holder for Buenos Aires price was the basis of the dispute which led to the Government of Argentina rescinding the concessionaire's contract in 2006. This occurred after a period of arbitration at the International Centre for Settlement of Investment Disputes (ICSID) that began in 2001, with the operator pushing for a tariff rise of 60% and the Government offering 16% (Casarin et al., 2007; Solanes and Jouravlev, 2007; Food and Water Watch, 2007).⁵⁹

The issue of access assumes particular importance in the case of water and sanitation. Providing universal access to water services is one of the core development challenges, and the role and impact of private participation on access to water has been controversial (box IV.5). In order for private companies/TNCs to recover their costs, price increases may occur, which particularly affects access for the poor (Estache, Foster and Wodon, 2003; Robbins, 2003; Hale, 2006).

As a result of the need for cost recovery to make investments profitable, water networks are often expanded to wealthy areas and improve the standards of living only of those who can afford it (UNDP, 2006). For example, in the case of the Aguas Argentinas concession mentioned above, although, overall, the operator met most targets set in the contract, there were considerable differences in service between districts of the city served (Solanes and Jouravlev, 2007). In particular, a detailed statistical analysis by districts within the city indicated that between 1993 and 2003 contract compliance was significantly greater in areas where the cost of service expansion was low and the incomes of users were highest; in contrast, service to the poorer districts was worse.⁶⁰ (Casarin et al., 2007). In Manila, the Philippines, where the public water supply utility MWSS was privatized in 1997, a case study found that the private companies had not meet their commitments and that there was reduced access to drinking water (Hale, 2006). In Cochabamba, Bolivia, a 40-year water concession was granted to a private company with foreign interests in 1999. Shortly afterwards, the concessionaire increased prices significantly, leading to demonstrations and conflicts, and finally to the cancellation of the concession (Lobina, 2000; UNDP, 2006).

The impact of TNC participation on users' access to water has frequently been disappointing. The technological and regulatory characteristics of the water industry tend to limit scope for competition, and thereby for maximizing efficiency improvement. Thus

Box IV.5. Universal access to water and the debate on public versus private provision

Providing universal access to water services is one of the core development challenges facing humanity in the twenty-first century. It is estimated that over one billion people lack access to clean water, and about half a billion people lack access to sanitation. The human costs of these deficits are enormous. Clean water and sanitation are important not only for survival, but also for the realization of human potential. Child mortality, maternal health and gender equality are some aspects of development directly affected by lack of water and sanitation. It is estimated that 5,000 children die every day as a consequence of illnesses related to the absence of water and sanitation. The inclusion in the Millennium Development Goals of the objective to reduce by half the proportion of people without sustainable access to safe drinking water by 2015 captures to some extent the sense of urgency and the increasing awareness of the severity of the problem.

In this context, the relative advantages of public and private actors in expanding access to water and sanitation and providing quality services have generated heated debate. Some fear that private participation will exacerbate the “commoditization” of water and prevent the treatment of water as a public good. Others point to the failure of State companies to enhance access, and their inability to increase performance efficiency. However, this polarity in the debate has diverted attention from one of the most fundamental human development problems: how can public policy create a framework in which governments and the private sector – domestic and foreign – can meet the needs of a poor and vulnerable underserved segment of the population?

Source: UNCTAD, based on information provided by UNDP (www.undp.org).

the contribution of TNCs (and private enterprises in general) to reducing prices and providing affordable services has been relatively limited. In many cases, the reform of the water industry has led to tariff increases, and, apart from the issue of affordability, in some other instances there have been no recorded improvements in terms of availability or quality of water supply. In some cases, efficiency gains also sometimes translate into profits for companies or lower subsidies payouts for governments, rather than price reduction (Gassner, Popov and Pushak, 2008b).

Due to the nature of water as a basic human need, final responsibility for universal access lies with the State, and appropriate policies are crucial for ensuring that the poor are not excluded from the service (Prasad, 2007; Ugaz, 2003). This includes, among others, policies with respect to the extent and type of TNC participation.

* * *

To sum up, TNCs have helped to improve the performance of infrastructure industries in developing countries by bringing in and transferring hard and soft technology, and increasing competition and efficiency in the market. The extent of this contribution varies by industry, and depends on the contestability of industries, the mode of entry of TNCs and the characteristics of host countries, especially the regulatory environment and domestic capabilities. Domestic enterprises with greater capabilities are more likely to benefit from technology diffusion and to be able to compete effectively with TNCs. TNC participation can also have a negative impact on domestic enterprises, for instance by pre-empting the entry of new local players or “crowding out” existing ones. Their participation may also entail various risks.

The participation of TNCs has generally increased the supply of infrastructure services in host countries and improved service quality, but their impact on prices has varied. This has given rise to concerns about pricing services beyond the reach of the poor. In any case, the final outcome depends not only on changes in supply capacity and efficiency as a result of TNC participation, but also on industry characteristics, host country regulations and the behaviour of foreign affiliates. In particular, there is considerable variation by industry. In telecommunications and transport industries, TNCs’ contribution to affordability of and access to services has been significant. In electricity, while TNC participation has increased supply capacity and network connections in a number of countries, the impact on prices has been mixed. In water, where the scope for competition and related efficiency benefits is limited, TNC participation alongside reform of the industry has led to increased tariff levels in many cases. For those services which are considered essential, if the efficiency improvements achieved by TNCs cannot allow them to maintain prices at low levels in order to cover their costs, and if the government does not provide subsidies to users, the result could be reduced access for the poor.

C. Broader development impacts and issues

Apart from its impact on investment in infrastructure industries and services, the participation of infrastructure TNCs can have a variety of broader or second-order effects that influence host economies and their development. However, the evidence on such broader impacts is limited, for a number of reasons. First, TNC involvement in many developing countries’

infrastructure industries is still relatively new and evidence is sparse, especially given the variety of country experiences and data shortcomings. Secondly, most research has understandably focused on their impact on the effective provision of infrastructure services, and there has been less focus on broader issues, including the further impact of those effects on the economy as a whole. Finally, and perhaps most importantly, many of the broader effects are industry-specific and it is not always clear that there is a TNC-specific aspect. For example, large-scale infrastructural developments such as hydroelectric dams will have both positive and negative impacts on the socio-economic and natural environment, but on the whole this will occur no matter what kind of company is involved – whether local or foreign.⁶¹ Notwithstanding these limitations, this section attempts to draw attention to some of the impacts of TNC participation in infrastructure industries in a number of key economic and political areas in host countries.

1. Wider economic impacts

Apart from the impact of TNCs' on resource mobilization for and investment in infrastructure, industry performance and conditions of service provision (discussed in sections A and B above), other important economic impacts on a host country relate to the public sector budget, employment and human capital (*WIR99*).⁶²

Fiscal impact on the public sector budget. For many countries, a favourable budgetary impact was one of the main anticipated outcomes from infrastructure reform and TNC involvement. Governments, especially in Africa and Latin America and the Caribbean, implemented privatization measures, including sales of enterprises and concessions to TNCs, in response to serious fiscal deficits, especially for the operation and maintenance of infrastructure facilities and services (section A). The gains were expected to derive from three elements of the process: (i) income from the sale, lease or rental of assets; (ii) reductions in public sector operational and capital expenditures by passing part of them on to private operators; and (iii) a decrease in subsidies and a net increase in tax and non-tax revenue (Estache and Goicoechea, 2005). In assessing the fiscal impact of private participation, it is important to distinguish between the short and the medium- and long-term effects.

Private participation allows governments to raise funds and to eliminate or reduce the need for subsidies in the short term. Receipts from one-time privatizations, as well as concessions, can be very substantial, which can help alleviate fiscal pressure, at least in the short term.⁶³ In Latin American countries,

the privatization of infrastructure enterprises (largely to TNCs) played an important role in sustaining their macroeconomic stabilization plans, and much of their privatization experience is seen as a response to fiscal pressures (Basualdo and Azpiazu, 2002; Besant-Jones, 2006). Some studies have shown that SOEs can be sold at a discount in developing countries, but generally the involvement of TNCs in competitive bidding has tended to raise prices of privatizations and also concessions (Birdsall and Nellis, 2003; Auriol and Picard, 2006). For instance, in Brazil, the Federal Government received \$48 billion from the privatization of SOEs, of which \$35 billion came from asset sales and concession awards in the telecommunications and electricity industries (Castelar Pinheiro et al., 2001).

India has also raised large revenues, especially in mobile telephony, from sales of concessions to private companies. However, the Indian experience also illustrates the dangers of single-minded attention to revenue maximization.⁶⁴ For example, rather than stress technological and performance parameters in choosing operators, focus was almost entirely on the level of licence fees they committed to pay. As India's experience shows, this strong emphasis on short-term revenue extraction from infrastructure TNCs created a natural tendency towards "over-bidding" and high tariffs, which caused the sector to come to an effective standstill during the 1990s and the consequent default of most mobile phone operators.⁶⁵ It eventually led to a change in the regulatory regime and consolidation in the industry. This delayed the Indian Government's mid- to long-term tax yield from what is normally a highly profitable industry (Nazareth, 2008).

The longer term fiscal effects of opening up infrastructure industries to increased private/TNC involvement are harder to assess, as this is generally part of a wider set of market-oriented reforms, such as trade liberalization, fiscal reform and macroeconomic stabilization packages. As privatized firms become more efficient in their infrastructure operations, governments are able to eliminate subsidies (as costs fall) and also start collecting taxes from them, both of which improve the public sector budget. This has not occurred to the degree that many governments had anticipated (Solanes and Jouraviev, 2007), but there are significant differences by industry and region.

For example, in Latin America, the historical profit rate (average returns on concessions) is 8.2% in telecommunications, which is the most profitable industry for private/TNC concessionaires (with little volatility in profitability between projects). Water is the least profitable at 4.3% (with the greatest volatility), and electricity (7.2%) and transport (5.2%) fall in between. Thus water is of more concern for governments, in tax and budgetary terms, than the other three industries. However, calculations on a

sample of concessions suggest that the profitability – and hence the positive fiscal impacts – of all industries increases over the lifetime of the concessions, in large part because significant early investments are recouped over the entire period (Sirtaine et al., 2005). In developing regions and countries where the principles of “user pays” and “full cost recovery” have been broadly applied, especially in most of East and South-East Asia, infrastructure investments tend to be profitable and contribute to the public purse at an earlier stage (Dollar, 2008; Wang, 2008; Gómez-Ibáñez, 2007).

The use of private/TNC infrastructure service providers, while reducing public budget outlays in the short term, can expose the economy to greater fiscal risks and uncertainty in the longer term, and sometimes entails higher costs than traditional public financing. (Hemming, 2006; Polackova, 1999). For example, when governments provide guarantees of service demand or exchange rate levels they are exposed to potentially very significant contingent liabilities. In Colombia, for instance, potential cumulative payment obligations over the life of PPI contracts has been estimated to represent as much as 4% of one year’s GDP (World Bank 2004b). Such guarantees, often based on overly optimistic projections, may shift the risk from the private investors to the government. When guarantee payments are called upon, typically at times of recession, their fiscal impact can be significant. For instance, in Colombia, payment obligations amounting to \$1.5 billion were triggered in 2003 for two electricity-generating facilities, and these are projected to rise to \$3 billion by 2014, when the contract expires (World Bank, 2004c).⁶⁶

Employment and human capital. The employment effects of restructuring State-run assets, whether by public or private enterprises, are likely to be significant, because many such assets are characterized by overstaffing (Gomez-Ibanez, 2007). Available evidence suggests that during the restructuring of infrastructure in Latin America in the 1990s, the initial labour lay-offs in many of the infrastructure facilities that were taken over were in excess of 30% of the workforce. In electricity and water, a large-scale assessment of staff reductions in 71 countries as a result of private sector/TNC participation, found a 24% decline in average employment in electricity and 22% in water (Gassner, Popov and Pushak, 2008b). This level of job losses has considerable implications for adverse impacts on the affected workers and their families, as well as on the wider economy because of reduced consumption (and multiplier effects)⁶⁷ (McKenzie and Mookherjee, 2002). In some regions, for example in South-East Europe and the CIS, the lay-offs were lower but political fallout was an issue (Gassner, Popov and Pushak, 2008a).

The actual scale of medium- and long-term impacts on employment and the economy will depend on the speed of lay-offs and productivity gains, compensation and retraining packages and other related effects (such as revenue gains/losses).⁶⁸ It will also depend on whether and how many workers are rehired in infrastructure services (e.g. because of rising demand or subcontractors) or other sectors, for example because of economic growth.⁶⁹ In some Latin American infrastructure projects, for instance, many of the jobs lost were recouped, and up to 80–90% of workers were rehired in the infrastructure industries within three years (Gomez-Ibanez, 2007). Both the job losses and rehiring may be greater and faster in privatizations involving TNCs, partly because they are more likely to push for rapid efficiency gains, and partly because they tend to have more efficient technology or organizations. For example, DP World in India has improved the efficiency of its ports operations rapidly over the past few years by trimming the workforce; but there have been employment gains as well, as a result of rapid growth not only of this TNC’s operations but also that of other international terminal operators (Nazareth, 2008).

When TNC participation in developing-country infrastructure involves establishing new facilities and services, this normally generates net employment gains. In certain countries, especially in LDCs, it is usually not possible to rapidly establish infrastructure, such as mobile telecommunications, without significant TNC involvement.⁷⁰ And although there may be some job losses in existing, especially fixed-line, enterprises, overall there is a significant positive employment effect (Ure, 2008). Similarly, the Maputo infrastructure corridor established in 1996 in Southern Africa – involving TNCs in essential aspects of transportation, water and other infrastructure industries – has resulted in sizeable employment creation (Horne, 2008). However, it is possible that infrastructure TNCs, even when establishing new facilities, might not generate many additional jobs, perhaps because of their use of foreign suppliers and contractors.⁷¹

Another impact of the use of foreign contractors on employment in a host country arises from their importing workers from the home country, as do infrastructure construction TNCs from China and India, for example (Pradhan, 2008). There may be reasons for this practice (e.g. shortages of relevant skills in the host country, or because fixed-term contracts mean that it is unattractive to train local workers), but they have repercussions in terms of employment creation and, potentially, adverse reactions by governments and populations. In the case of Chinese contractors, although many or most employees in their projects might be local, a large proportion of them – sometimes as much as 50%

– may be Chinese (Levitt, 2007; Chan, 2007). By 2007, the number of Chinese employees working for Chinese infrastructure companies in Africa ran into the hundreds of thousands, resulting in tensions with the local workforce and some governments (Sautman and Hairong, 2008).

2. Bargaining power and regulatory concerns

Concerns over the balance of bargaining power. TNCs in infrastructure are often large relative to the size of developing-economy enterprises and can wield considerable power, potentially of a monopolistic nature. As a result, particularly early in the opening up of an industry, infrastructure TNCs may enjoy considerable bargaining power, especially in the absence of a significant domestic private sector (section IV.A; Matsukawa and Habeck, 2007). At a later stage, as local enterprises develop, size and other advantages may disappear, but in the short term⁷² host countries are in a relatively weak position. Even if a government would like to alter the behaviour of a TNC participant in its infrastructure industries, it may not be able or willing to do so: it may not be feasible to let infrastructure operations fail (even temporarily), or government's may not wish to return operations to State ownership (Ramamurti, 1997 and 2001. This "reverse obsolescing bargain"⁷³ means that, at least for a while, TNCs can exercise significant power in their dealings with governments. A good example of such a situation is the large-scale renegotiation of concessions that occurred in Latin America and some other parts of the developing world in the late 1990s and early 2000s (box IV.3).

Impacts on regulatory regimes. Host country governments have created new regulatory frameworks for the infrastructure sector over the past two decades. This has been for two main reasons: (i) in response to the evolution of technological and other characteristics of the industries themselves, and (ii) to ensure effective oversight over the operations of enterprises – both SOEs and the private sector – in the provision of infrastructure services in the public interest (sections III.A; Parker et al., 2005). TNC involvement in infrastructure provision adds an extra layer of complexity to the regulatory regime and to the burden of the regulatory authorities. There are enormous intricacies inherent in regulating domestic private enterprises, requiring knowledge of, for example alternative regulatory systems, models of costing and pricing and the diverging interests of stakeholders, including firms, users, politicians and administrators. In addition, TNC participation requires regulatory agencies to familiarize themselves and deal with a number of different stakeholders, such as foreign companies, international donor and

creditor agencies and international banks. This puts additional pressure on institutions that in many developing countries are no more than a few years old, and are usually constrained by limited funding. Even regulatory bodies which have been in existence for a while, including in developed countries, face a number of problems when dealing with TNCs and other large companies. The most important problems relate to information asymmetries,⁷⁴ regulatory capture and regulatory opportunism, as highlighted in the literature on economic regulation (Kirkpatrick et al., 2006; Boehm, 2007).

In developing countries, especially poorer ones or those suffering from severe budgetary and debt problems, resource constraints and weak institutions can aggravate these problems, especially because TNCs are large entities (compared to local enterprises in most developing countries) with ultimate decision-makers based in other countries. Moreover, these TNCs can call on a dedicated team of lawyers and other experts for advice, which may be beyond the budgetary possibilities of host governments. In consequence, foreign firms often have greater bargaining power and expertise than their counterparts on the government side, and locally they are more able to attract and retain skilled employees due to their capacity to pay higher wages and salaries (WUP, 2003).

Information asymmetries between TNCs and developing countries' regulators can be an important obstacle to efficient regulation (Massarutto, 2007). In many cases, regulatory agencies have no choice but to rely on information provided by TNCs (Boehm, 2007; Maldonado and Herrera, 2007; Fischer and Galetovic, 2001; Rozas, 1999). A survey of utility regulatory practices in developing countries and transition economies showed that the difficulty most often cited by regulators concerned information asymmetries (Kirkpatrick et al., 2006).⁷⁵

Regulatory regimes can also succumb to "regulatory capture" by vested interests: from bureaucrats and firms to major firms in the industry regulated, including TNCs. The concentration of regulatory powers in the hands of bureaucrats and politicians may lead to an abuse of their position to foster their own goals instead of serving the public interest. On the other hand, the concentration of regulatory benefits and the diffusion of regulatory costs enhance the power of lobbying groups over regulators and can also lead to regulatory capture by private firms, including through bribery and corruption (Kirkpatrick et al., 2006; Boehm, 2007). Apart from the direct costs of regulatory capture, for example the impact on infrastructure access if companies are able to retain higher prices than might otherwise be the case, governments need to avoid such situations because of other consequences. One of the most important of these is the danger of lower

investment in an infrastructure industry by other TNCs and local enterprises, precisely because of the privileges received by incumbent firms (Banerjee et al., 2006).

D. Conclusions

Financial constraints faced by governments were a major reason why an increasing number of developing countries opened up to FDI and TNC involvement in infrastructure industries in the 1990s. Today, they continue to seek TNC participation for mobilizing financial resources and raising investment levels in infrastructure industries. Other reasons are related to the potential impacts of such participation, including technology transfer, and greater competition and efficiency, which could improve industry performance and service provision.

TNC participation has indeed mobilized significant financing for the development of infrastructure industries in developing countries. Allowing for data limitations, the stock of infrastructure FDI in developing countries rose 29-fold: from \$6.8 billion in 1990 to \$199.4 billion in 2006. Foreign investment commitments in infrastructure in these countries (which include concession agreements, as well as FDI) were about \$246 billion in the period 1996–2006. However, despite these significant levels, more is required: the financing gap in the sector remains vast (section III.A.2) and considerably more investment is needed, irrespective of the source.

From the host country perspective, not all of this FDI constitutes investment in infrastructure. In particular, privatization sales of existing assets do not necessarily add to capital formation. But at the same time other forms of TNC participation also involve investment. This is especially true of concessions, which involve large amounts of investment to build new or improve existing infrastructure. Inasmuch as concessions were about equal in value to FDI in all investment commitments during the period 1996–2006, the contribution of TNCs to infrastructure investment in developing countries is likely to be larger than is suggested by FDI stock.

The relative impact on investment levels in host country infrastructure has varied by industry: TNCs' shares of investment commitments were highest in telecommunications and electricity and lowest in water and transport. The importance of TNC participation also varies greatly among countries. For example, in some of the largest recipient countries, such as China and South Africa, TNCs' shares in private sector investment commitments have been low, but they have been high in others, such as Egypt and Pakistan. Furthermore, of the developing countries in which TNCs' shares of private sector infrastructure

investment commitments exceeded 75%, over half (13 out of 20) are LDCs. Even though LDCs do not receive much investment from TNCs (as mentioned in section III.B), whatever they receive is a very significant proportion of the total private investment in their infrastructure industries. For some of these countries TNCs are more or less *the* private sector.

Investment in infrastructure by foreign companies in the 1990s was connected with an unanticipated decline in public investment in the sector across much of Latin America and parts of Africa. In expectation of a large-scale increase in private sector investment, many countries cut back on public expenditure in infrastructure, but the increase in investment by TNCs (and the domestic private sector) did not fully compensate for this decline. An important lesson from this experience is that TNC participation should not be considered as sufficient to provide for a country's investment needs in infrastructure industries; rather, it should be viewed as an important supplement and complement to domestic investments.

Depending on their ownership advantages, TNCs have brought both hard and soft technology (particularly the latter) to their operations in infrastructure industries in host countries, thereby contributing to increased productivity in these industries. The extent of this direct technological effect of TNC participation depends on the extent to which TNCs' technology and expertise are superior to those of domestic firms – public or private. The industry-wide technological impact of their participation also depends on the diffusion of technology, if any, to domestic firms through various channels, such as joint-venture cooperation, personnel mobility and demonstration effects. The degree to which this transfer occurs is influenced, among others, by TNCs' technological advantages and modes of entry, and by domestic capabilities in infrastructure industries.

Although the contestability of infrastructure industries is often constrained, TNC entry has increased competition, and thereby efficiency in infrastructure industries such as mobile telephony and electricity generation, where the potential for competition exists. However, in some cases TNC entry may be associated with significant market power and crowding out effects. In industries that are still natural monopolies, such as water supply, the entry of TNCs through privatization or concessions often results in State monopolies being turned into foreign private ones, so that efficiency gains from competition are limited. Foreign participation also entails various risks, including a high incidence of concession renegotiations or sometimes TNC withdrawals, which may affect industry performance.

The participation of TNCs has generally increased the supply of infrastructure services in host countries and improved service quality, but its impact

on prices has varied, giving rise to concerns of services being priced out of reach of the poor. The final result depends not only on changes in supply capacity and efficiency as a result of TNC participation, but also on industry characteristics, host country regulations and the behaviour of foreign affiliates. Government policy and price regulations can significantly influence the degree and duration of price changes, and thus the effects on affordability and access for different segments of society, especially the most vulnerable, including the poor and those living in rural, remote and economically deprived areas.

In particular, there is significant variation by industry in terms of the effects of TNC participation on affordability and access to services. On the one hand, in some segments of the telecommunications and transport industries, frequent technological progress and regulatory reforms, innovative business models and competitive pressures have caused prices to fall. In these instances, TNCs' have contributed to affordability of and access to services. In other essential infrastructure services, in the absence of government subsidies to users, additions to supply capacity, along with efficiency improvements, may be insufficient to maintain low prices, while recovering costs. This has sometimes been the case in electricity and, more commonly, in water. In such cases the participation of TNCs has not contributed to improved access for the poor.

TNC participation is not the only way for a developing country to improve industry performance and provision of services, nor is it necessarily a substitute for domestic enterprises – public or private. Some developing countries have achieved improvements in performance through domestic efforts, without or with limited TNC involvement. However, these successes are found mainly in relatively high-income or larger developing economies. For many LDCs, mobilizing sufficient domestic resources and building productive capacities in infrastructure industries remains a challenging task, and they are in urgent need of the types of assets, including capital and technology, that TNCs can offer.

Apart from their direct impact on infrastructure performance and provision of services, the participation of TNCs has further impacts, both positive and negative, on host economies and their development. Some of the areas where their involvement has had an impact include the public sector budget, employment and human capital, and the regulatory regimes under which companies operate. Regulatory oversight over companies in particular is essential in infrastructure industries to safeguard the public interest. However, some developing countries' regulatory agencies – especially those with budgetary problems – face difficulties when dealing with better-resourced TNCs and other large companies. For instance, some of them lack access to information

on costs, rates of return and corporate investment strategies, all of which would allow regulators to be more effective.

While the ultimate impact of TNCs is influenced by the behaviour of each firm, one of the most important determinants is the quality of the institutional and regulatory framework of the host country. Government capabilities are as important for formulating and implementing rules governing privately operated infrastructure as they are for undertaking the difficult task of running SOEs and for providing services to the poor (chapter V).

Notes

- ¹ According to a study by Sader, who examined typical BOT-type projects (Sader, 2000).
- ² Total investment commitments in the World Bank's *Private Participation in Infrastructure* (PPI) database comprise those made by TNCs and the domestic private sector in developing and transition economies. If the State or State-owned enterprises have a share in these private sector projects, these investments are also included in the total. However, investments in infrastructure made solely by the State are *not* included (for further details see box III.13).
- ³ According to the PPI database, during the period 1996–2006, about 60% of FDI in infrastructure, by value, resulted from privatizations (i.e. the acquisition of existing capital assets). However, a proportion of privatizations is likely to have led to new investments, inasmuch as some of the existing capital stock needed to be upgraded. For example, according to a review of the telecommunications sector in the 24 countries covered in the Africa Infrastructure Diagnostic (AICD) project, in all investment projects with the participation of the private sector (mostly TNCs), some \$3.3 billion were paid for privatization and license fees, while another \$20 billion was committed to new investments (Minges, 2007).
- ⁴ The investment component varies by type of TNC involvement. FDI and most concession typically have significant amounts of associated investments; while management contracts do not.
- ⁵ Because of the nature of concessions such as build-own-operate (BOT), build-operate-own (BOO), and rehabilitate-operate-own (ROO), i.e. to rehabilitate or build infrastructure and run related services, much of the financial flows mobilized by TNCs participating through such arrangements represents investment in these industries. BOO and BOT schemes were generally used for greenfield projects in infrastructure in Latin America (Strong et al., 2004). In addition to FDI and concessions, a small share of investment commitments consists of pure non-equity forms (e.g. management contracts).
- ⁶ This is in contrast to the breakdown in figure III.6, which is by number of projects. The biggest difference arises in terms of management contracts and licenses - whereas these account for 6% of the total number of PPI project in 1996–2006, by value they fall to a negligible 0.2% because very few financial resources are associated with this type of agreement.
- ⁷ The greatest decline in total infrastructure investment commitments was in Latin America, from a level of \$346 billion in 1996–2000 to \$85 billion in 2001–2006, according to the PPI database. Table III.7 shows that in Africa, the TNC share as well as foreign investment commitments increased (to \$25.5 billion in 2001–2006), but in Asia, only the share increased, while the commitments fell a little (to \$31.4 billion). There has been a recovery in investment in infrastructure industries in the last couple of years (section III.B).
- ⁸ Among the largest recipient countries in the PPI database, only Argentina, Brazil, Colombia and Peru saw falls in TNCs' shares of investment commitments between the two periods. Of these,

the largest falls were in Argentina and Colombia, from about 37% in each case in 1996–2000 to 16% and 13% respectively, partly because of disputes between the respective Governments and TNCs amid the financial and economic crises of the late 1990s and early 2000s (Solanes and Jouraviev, 2007). In some of these countries, the domestic private sector took up some of the slack.

⁹ Most developing-country governments remain interested in greater TNC participation in their economies. For example, in India, the scale of investment needs is so great (section III.A.2) that the Government is encouraging further TNC investment, including by foreign private equity firms in joint ventures with domestic and foreign partners (Nazareth, 2008).

¹⁰ For example, in Pakistan and Bangladesh the shares of TNCs in total private sector commitments reached 73.9% and 85.4%, respectively, in 2001–2006.

¹¹ For example, in 2007, Brazil announced the Programa de Aceleracao de Crescimento, which included a plan to boost infrastructure spending to about 5% of GDP, largely funded by the State and relying on State-owned enterprises (SOEs), but with room for the private sector, including TNCs (Jonathon Wheatley, “Brazil must lift barriers to new infrastructure”, *Financial Times*, 28 February 2007; “Brazil” (special report), *Financial Times*, 8 July 2008; *Business Monitor International*, “Brazil Infrastructure Report Q2 2008, 30 April 2008).

¹² For example, in Bolivia, Chile and Colombia, an increase in private investment, including FDI, more than compensated for the decrease in public investment. In contrast, in Brazil, there was a steep decline in total investment in infrastructure, from 5.2% of GDP to 2.4% in the early 2000s (Calderón and Servén, 2004), and according to the World Bank, it was as low as 1% of GDP by 2005 (Jonathan Wheatley, “Brazil must lift barriers to new infrastructure”, *Financial Times*, 28 February 2007).

¹³ India’s financial crisis of 1991 spurred it to liberalize its economy and to invite foreign TNC participation in infrastructure. While the country’s other service industries and manufacturing were opened only gradually to TNC participation, 100% foreign ownership was permitted in power generation as early as 1991, and similar favourable treatment was offered in segments of other infrastructure industries. Following liberalization, initially there was a large increase in approvals of FDI and other types of TNC participation, but in most industries inflows soon declined. This was largely because of institutional hurdles, including long delays in obtaining the approvals necessary to begin operations, problems related to licensing and pricing policies and regulatory uncertainty. In electricity, and transport, significant levels of early entry by TNCs in the 1990s have since been reversed, and in telecommunications, TNCs have returned in significant numbers only in the last few years (Nazareth, 2008).

¹⁴ TNCs’ shares in overall private sector investment in telecommunications remained stable or increased in other countries.

¹⁵ Data are drawn from the World Bank’s PPI database.

¹⁶ All of these countries have a high amount of TNC investment commitments, but considerable investments are made by the domestic public and private sectors.

¹⁷ All nine African countries in this group are LDCs.

¹⁸ The aspects of economic efficiency discussed include allocative efficiency, dynamic efficiency and X-efficiency. *Allocative efficiency* generally refers to limited resources being allocated in accordance with the interest of consumers. In the short run, as emphasized in neoclassical economics, competition is necessary to ensure that allocative efficiency is achieved and consumer welfare is maximized. *Dynamic efficiency* refers to technological improvement that leads to an increase in the efficiency and welfare of the economy (Nelson and Winter, 1982). *X-efficiency* refers to the effectiveness with which a given set of inputs is used to produce outputs. When firms are in a protected market, incentives to achieve minimum cost may be blunted, and a considerable amount of slack may exist in the organization. The term “X-inefficiency” (first introduced by Leibenstein, 1966) is used to describe this kind of internal disorganization. If

competitive pressures can be intensified, X-inefficiency will tend to disappear.

¹⁹ For example, in China, global operators, as well as other smaller TNCs, have introduced state-of-the-art equipment and management expertise to the country’s port operations, thereby helping to improve productivity in the industry. For example, at Chiwan Container Terminal in Shenzhen, which is operated by a joint venture established by Modern Terminals and Kerry Holdings (both of Hong Kong, China), cranes capable of lifting six 20-foot equivalent units (TEUs) or three 40-foot equivalent units (FEUs) are in operation, contributing to higher productivity (UNCTAD, 2007i). In the Dominican Republic, to improve efficiency, the Harbour Authority granted concessions to foreign operators for two ports. The DP World Caucedo port near Santo Domingo, which commenced operations in 2003, uses advanced equipment, as well as an integrated port management system, and is moving towards a turnaround time of two days (UNCTAD, forthcoming b). In India, global operators such as PSA International and DP World have helped upgrade the efficiency of cargo handling at major ports. Terminals managed by them now operate at international standards of efficiency, and their average turnaround times are two to three days, in comparison with eight days at comparable government-run terminals.

²⁰ For example, Vodacom’s five mobile networks in Africa had an average of 2,425 subscribers per employee in 2003, whereas the OECD average was 1,527 (OECD, 2005). One of the reasons for this is the high number of pre-paid subscribers in Africa which tends to create a lot of downstream employment allowing operator staff to focus on core activities.

²¹ However, where valuable proprietary technology is involved, TNCs may be reluctant to engage in joint ventures or non-equity cooperation arrangements.

²² Information obtained from interviews with local electricity companies in China (Wang, 2008).

²³ Of course, the domestic private sector – and SOEs – will usually need to acquire the necessary technology and expertise.

²⁴ In addition, domestic companies can buy technologies and expertise through trade arrangements with foreign companies. For example, the facilities operated by City Power (South Africa) (box III.8) are technology- and capital-intensive, requiring it to source widely for equipment. It buys transformers from various countries, such as China, Croatia, India and the United States. It has also invested heavily in the expertise and skills of its employees, sending many of them overseas for training, frequently to programmes run by electricity TNCs. The company has hired a number of new managers from the outside, some from the private sector, including TNCs (UNCTAD, based on information provided by City Power).

²⁵ In the course of electricity-industry reforms in Africa, domestic private participation has been often hampered by the technology- and capital-intensive nature of large-scale projects (ECA and UNEP, 2007).

²⁶ “Telecom trends in Uganda getting interesting”, *Bellanet*, 24 August 2007.

²⁷ As Telefonica consolidated its position after the acquisition of BellSouth in many countries in the region, Telmex developed an aggressive acquisition strategy in fixed-line telephony as well as in the mobile telephony sector (Mariscal and Rivera, 2005).

²⁸ ST Telemedia’s decision in June 2008 to sell its stake in Indosat follows a legal dispute that began in November 2007, when Indonesia’s antitrust authority accused Temasek of violating a monopoly law by holding indirect stakes in Indosat and PT Telkomsel (www.zawya.com).

²⁹ For example, in Jamaica, Digicel (Ireland) had 1.9 million customers by 2008, equivalent to 82% of the country’s mobile market and 72% of the total population (source: UNCTAD case studies).

³⁰ Privatization through share issue is associated with better performance, while granting a newly privatized operator a period of exclusive market access reduces the gains from privatization but does not entirely negate the gains (Li and Xu, 2002).

- ³¹ As noted in section III.A.1, the generation segment has competitive characteristics, and can be structured as a competitive business; the transmission segment is considered a natural monopoly, and most countries have only a single entity owning and operating the transmission network; the distribution segment has the characteristics of a natural monopoly, but it is possible to structure wholesale distribution as a competitive business. Therefore, vertical unbundling (i.e. unpackaging vertically integrated utilities into separate companies) is a central element of reform of the electricity industry, in addition to private participation.
- ³² Because of its geographical characteristics, Chile has two main power systems: the Sistema Interconectado del Norte Grande (SING), which is predominately thermal, and the Sistema Interconectado Central (SIC), which is about 75% hydro and 25% thermal.
- ³³ After the implementation of market-oriented reforms, private participation – which often entailed TNC involvement – in many cases helped improve efficiency because private providers, as commercial entities, had the incentive to increase revenue by collecting fees, and to cut wasteful cost by reducing managerial slack. A number of case studies show higher collections, decreasing costs and accordingly reduced losses after the entry of TNCs (e.g. World Bank, 2002; Platz and Schroeder, 2007).
- ³⁴ The incumbent State-owned telecom, Maroc Telecom, was partially privatized in 2001 when 35% of its equity was sold to Vivendi (France) for \$2.1 billion. It was subsequently listed on the Casablanca and Paris stock exchanges in 2004 when 14.9% of government holdings were floated for \$1 billion. In 2005, Vivendi acquired an additional 16% of government shares for \$1.4 billion (raising the foreign share to a majority stake) Maroc Telecom has since developed into a TNC: it purchased 54% of Mauritel, the incumbent telecommunications operator of Mauritania, in 2001 and in late 2006 it bought 51% of ONATEL, the incumbent operator in Burkina Faso. This was followed by the purchase of 51% of Gabon Telecom for \$80 million in February 2007.
- ³⁵ Other examples are Telmex and América Móvil, both owned by Grup Carso, although in their cases, domestic private companies also played a major role in addition to TNCs. During the privatization of Teléfonos de México (Telmex) in the early 1990s, TNCs participated through part ownership, but later relinquished the bulk of their ownership to Grupo Carso. Afterwards, as mentioned above and in section III.C, Telmex grew significantly to become one of the largest telecoms operators from and in the developing world (Clifton et al., 2007).
- ³⁶ Corporatization refers to non-corporate entities (including State-run public utilities) taking up the organization and governance structures of corporations and operating in a commercial way.
- ³⁷ While the results of similar performance contracts in other countries were disappointing (e.g. World Bank, 1995), the reform of UWSC has been very successful. For instance, collection efficiency increased from 60% in 1998 to 95% in 2006, and the number of staff per 1,000 connections fell from 36 to 7 during the same period.
- ³⁸ Originating from the Port of Singapore Authority, PSA International is now a global port operator. It operates 26 port projects in 15 countries across Asia and Europe, with a global capacity of 111 million 20-foot equivalent units (TEUs).
- ³⁹ Governments sometimes found it difficult to impose financial discipline on public enterprises and to give them financial autonomy, and they continued to assign multiple policy objectives to managers of these companies (Harris, 2003).
- ⁴⁰ For instance, better sanitation and cleaner water can enhance the health and welfare outcomes of a country; providing electricity in a developing country can contribute to “social development through education and public health, satisfying more effectively basic human needs of food and shelter”. Various social services can benefit from expanded networks of water and electricity supply. For instance, schools can benefit as a result of night-time studying possibilities, and hospitals can benefit with improved health care provision (OECD, 2006a).
- ⁴¹ Availability and affordability of infrastructure services are related. For instance, the price of services and the (average) disposable income of inhabitants of a given location will jointly determine the affordability of services to those inhabitants. Of course, the two factors also influence the anticipated profitability for service providers, and therefore affect corporate decisions on whether to extend networks to that location. This can affect the coverage of networks and the availability of services.
- ⁴² In the early 1990s, the gaps were greatest for electricity and water, where, on average, revenues covered as little as 60% and 30% of costs respectively (Harris, 2003).
- ⁴³ ENDESA (Spain) as well as other TNCs participated in the process of privatization in Chile during the 1980s and 1990s. In 2000 and 2001, several additional international firms became involved in the Chilean electricity industry through M&As (Bureau of Economic Geology, “Results of electricity sector restructuring in Chile”, www.beg.utexas.edu).
- ⁴⁴ In the Philippines, for instance, under the State electricity company, electricity supply was interrupted for seven hours a day in many areas of the country, and in 1990, the area around the country’s capital lost about \$2.4 billion in economic output due to frequent power cuts (World Bank, 1995).
- ⁴⁵ In the event, the projects that are operational have not had to resort to these guarantees.
- ⁴⁶ In Argentina, under public provision the waiting time for a telephone connection was eight years; it took on average 23 days for phones to be repaired (Estache, 2002).
- ⁴⁷ Figures on urban growth sometimes conceal the frequent lack of progress in rural telecommunications development (Shanmugavelan and Warnock, 2004). The rural population, which comprises the majority of Africans, has yet to benefit adequately from the deployment of new telecoms technologies (McCormick, 2005).
- ⁴⁸ The country has 13 ports with a throughput of over one million TEUs; six of them are among the world’s top 20 container terminals (UNCTAD, 2007i). HPH operates 12 terminals in 10 ports at: Gaolan, Huizhou, Jiangmen, Jiuzhou, Nanhai, Ningbo, Shanghai, Shantou, Shenzhen and Xiamen; PSA International is involved in terminal operations at the ports of Dalian, Dongguan, Fuzhou, Guangzhou and Tianjin; DP World operates at the ports of Qingdao, Shanghai, Tianjin and Yantai; APM Terminals operates at the ports of Dalian, Qingdao and Shanghai. Source: China Communications and Transportation Association and company websites.
- ⁴⁹ TNCs are involved in the operation of some of India’s 12 major ports. For instance, PSA International is involved in the operation of the ports of Chennai, Hazira, Kolkata and Tuticorin; and DP World in those at Cochin and Visakhapatnam.
- ⁵⁰ Westport (Malaysia) had completed nine berths capable of serving vessels in the range of 8,000 to 9,000 TEUs by 2005 and handled 6.2 million TEUs in 2006 (UNCTAD, 2006b and 2007i).
- ⁵¹ The country is realizing its potential as a regional trans-shipment base with the development by DP World of the Santo Domingo container terminal (with a capacity of one million TEUs) and a related free zone (UNCTAD, forthcoming b).
- ⁵² For example, MTD (Malaysia) has invested in and operates a highway linking Yangshuo and Luzhai in Guangxi Province (Li Rui, “The first foreign-invested BOP highway project in Guangxi starts”, *Xinhua Net*, 23 June 2008 (http://news.xinhuanet.com/newscenter/2008-06/22/content_8417569.htm)).
- ⁵³ There is a potential two-way relationship between broader regional economic integration and integration in the area of transportation, and regional approaches are also particularly appropriate for transport facilitation along main transport corridors (TDR07).
- ⁵⁴ The Maputo Corridor provides the shortest transit route to the sea for all the northern provinces of South Africa and the neighbouring regions, and ends at the deepwater ports of Maputo and Matola in Mozambique.
- ⁵⁵ The consortium, which owns 51% of MPDC, consists of Mersey Docks (United Kingdom), Skanska AB (Swedish construction company), Liscont-Operadores de Contentores SA (Portuguese

- terminal operator) and local partner Mozambique Gestores SARL. The Government of Mozambique and the national ports and railways authority, CFM, hold the other 49% of MPDC shares. The chief executive of the joint venture was seconded from Mersey Docks.
- ⁵⁶ Throughput is expected to increase from 4 million tonnes in 2003 to 13 million tonnes by 2018 (“Mersey Docks led consortium to control Maputo Port”, at: www.portiamanagement.com).
- ⁵⁷ As an extreme example, in 2006 Indian consumers of water paid, on average, only 10% of the actual cost of its production and delivery (Nazareth, 2008).
- ⁵⁸ One study, focusing on Eastern Europe and Central Asia, found that price increases in these regions have been driven more by foreign involvement (Gassner, Popov and Pushak, 2008a). Sometimes price decreases have also been observed. Overall, the regulatory regime is probably more important than ownership in determining price (e.g. where a government continues to subsidize user tariffs). In addition, studies on the relative cost efficiency of public sector operators of water utilities have shown that there is a far greater variation in their operations than that of TNC/private sector operators. This means that the direction of price change after private sector/TNC participation depends very much on the level of efficiency of the previous operator (Massarutto, 2007).
- ⁵⁹ One of the reasons for this price dispute was that the contract tariffs were stipulated in dollars, but this became unfeasible from the country’s perspective when the Argentinean crisis of 2001–2002 led to the Government abandoning its policy of holding the Argentine peso at parity with the United States dollar.
- ⁶⁰ Of course, the situation was very complicated, as pointed out by Casarin et al. (2007), who suggest that the dynamic behind underpayment in poorer districts partly explains the operator’s behaviour.
- ⁶¹ Of course, TNC-specific aspects can be discerned in particular cases. For example, TNCs have started to introduce clean technology to power stations in China, which is also being taken up by local firms (Wang, 2008). However, there is insufficient evidence to warrant a separate discussion of the environmental impact.
- ⁶² The impact of TNC participation on infrastructure industries also, and importantly, affects the competitiveness of local businesses and industries across the host-economy development generally, but analytically it is not particularly meaningful to examine the relationship between TNC participation in infrastructure and a country’s competitiveness (or development under conditions of openness to international competition). Apart from a wide variety of confounding factors, the main relevant causal factors between infrastructure and the economy as a whole relate to the quality and performance of infrastructure industries per se – not their ownership. And even in this respect, the direct connection is not so clear, recalling the remark by Robert Solow in 1987, “You can see the computer age everywhere, but in the productivity statistics” (cited in “The broadband myth”, *Economist* 23 May, 2008).
- ⁶³ In the longer term, the fiscal effect of the change in ownership is harder to gauge. Ultimately, this depends on the initial price, on the use of the net revenues obtained from the sale, on the post-sale stream of tax revenues, and how well privatized enterprises perform post-sale.
- ⁶⁴ The obverse of this is the private sector/TNC’s inflated expectations of the values of licences, concessions or market potential. This too has led to overbidding in developed and developing countries, especially in sectors such as telecommunications and electricity – leading to reduced viability and profitability. This provides fiscal benefits to host Governments in the short run, but potential for problems in the long run because of a higher risk of bankruptcy or defaults (Harris, 2003).
- ⁶⁵ By 1998, 8 of the 22 mobile phone operators, and all but one of the wireless operators, had defaulted on their licence fees, and the cellular market had not taken off as expected. While a post-1995 economic slump was partly responsible, far more important was the nature of the policy framework within the sector. The ability of the Indian Department of Telecommunications to operate both as regulator and service provider enabled it to write the rules of the game completely in its own favour. In particular, it made mobile telephony subscribers – not fixed-line users – pay for the calls they received from its fixed-line system, further adding to the higher cost of mobile calls. This regime of “receiver pays” contravened international standards, and posed a de facto tax on cellular services (Nazareth, 2008).
- ⁶⁶ In Mexico, the bailout of a failed Mexican toll-road programme in 1997 cost the Government between \$7 and \$12 billion (1%–1.7% of Mexico’s GDP) (Guasch et al., 2005).
- ⁶⁷ However, multiplier effects on the economy due to lay-offs (and hence reduced consumption) are generally small, since infrastructure employment is seldom more than 2% of the total workforce (Foster et al. undated; McKenzie and Mookherjee, 2002). The Study by Gassner, Popov and Pushak, 2008b confirms average staff reductions of this order of magnitude as a share of the total workforce in 71 developing and transition economies.
- ⁶⁸ For example, in the case of Argentinean railways, the workforce was reduced to 19,700 employees from an initial total of 92,500. The State spent \$360 million to compensate dismissed employees, thus diverting funds from other uses by the State (Kopicki and Thompson, 1995).
- ⁶⁹ Some rehiring could result, for example from infrastructure improvements, which shows how important it is to look at the overall cost-benefit equation. This is certainly the case for TNC involvement in China and India (Wang, 2008; Nazareth, 2008).
- ⁷⁰ For instance, companies such as Millicom International (Luxembourg) and Celtel (part of Zain Group (Kuwait, but registered in the Netherlands)) specialize in business models that bring millions of new customers into the industry as a result of innovative technology or organization. Millicom, for example, specializes in pre-paid subscriber systems, which it tailors – among others – to LDC markets such as Cambodia, the Democratic Republic of the Congo, the Lao People’s Democratic Republic and the United Republic of Tanzania.
- ⁷¹ It is common for TNCs to use foreign construction companies because of existing relationships and the desire to minimize costs. Some of the leading construction/engineering companies acting as subcontractors or suppliers to infrastructure TNCs are from countries such as Brazil, China, India and Turkey. For example, ETC (United Arab Emirates), and Huawei (China) have a global partnership, whereby the latter supplies equipment to the former in each market it enters (Pradhan, 2008). This means that fewer jobs are likely to be created in a host country and, where they are created, few are available to nationals.
- ⁷² In the longer term, the balance of power in infrastructure industries shifts as new players enter the market, thereby eroding the monopolistic power and privileges accrued by TNCs (and other firms) as a result of entering early into newly liberalized markets.
- ⁷³ More commonly, in the context of TNC-government relations, the term “obsolescing bargain” means that high sunk costs by TNCs in industries such as mining and infrastructure can give the host country government the upper hand in renegotiating contracts (*WIR07*).
- ⁷⁴ This term refers to differences in the levels of information on costs, revenues, rates of return, investment scenarios and plans available to different participants in a market or stakeholders – in this case, TNCs (and large domestic private firms) as opposed to regulatory agencies.
- ⁷⁵ Of the 41 respondents, 33 mentioned information asymmetry as a serious problem, and 22 also mentioned enterprises providing misleading information. (The questions were specifically addressed to regulators using price-cap and rate-of-return tariff structures.)

CHAPTER V

POLICY CHALLENGES AND OPTIONS

A. A complex challenge

The significant investment needed for infrastructure development in developing countries (chapter III) necessitates greater involvement of the private sector, in many instances that of TNCs. It is therefore important for host countries and their governments to determine when it is appropriate to bring TNCs into the development and management of infrastructure projects and how to attract TNC participation that leads to the expected development outcomes. Throughout the world – in developed as well as developing countries – policymakers are faced with the challenge of developing adequate, efficient and equitable infrastructure industries and services. This involves a number of complex issues.

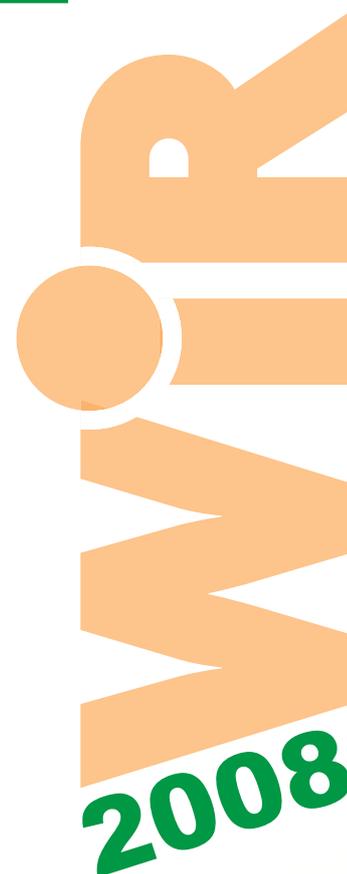
First, the perspectives of many different stakeholders have to be considered when deciding on whether and how to involve TNCs. At least four different stakeholders can be distinguished: the government (at different levels), the various companies and financiers involved, the users of the infrastructure services and the society at large (Scott, 2007). To avoid the risk of failure, the varying objectives of these groups need to be adequately taken into account.

Secondly, there are no one-size-fits-all solutions. Policy priorities and options differ considerably between countries at different levels of economic development and with different characteristics. For example, for landlocked countries it may be important to give special attention to cross-

border infrastructure that can improve their access to global transport networks; and the infrastructure solutions for countries with small economies may differ considerably from those with large national markets. As a result, the right mix of public and private (including TNC) investment will continue to vary greatly by project, industry and country.

Thirdly, designing and implementing appropriate policies to harness the potential role of TNCs in infrastructure require adequate skills and capabilities. Many infrastructure investments are socially sensitive and technically challenging, and need to be regulated by means of long-term contracts within an appropriate legal framework. Governments have to prioritize among competing demands for different projects (keeping in mind the dual needs to maintain existing physical infrastructure and develop new projects), establish clear and realistic objectives for the projects chosen, and integrate them into broader development strategies. This means that the ministries and implementing agencies concerned have to possess the necessary institutional capacity and skills to guide, negotiate and regulate the projects. As many infrastructure projects are handled at the subnational level, development of capabilities is warranted not only at the central level, but also at provincial and municipal government levels. Thus, for leveraging TNCs for infrastructure development, adequate human and institutional resources are needed.

Added to these challenges is the rise in global demand for investment in existing



and new infrastructure. Since many developing countries are seeking foreign investment to develop their physical infrastructure, competition for such investment is becoming more intense. Moreover, growing demand in the developed world and in large emerging economies is leading potential investors to expect higher returns for a given level of risk. At the same time, failures and investment disputes associated with infrastructure projects, notably in Latin America, have contributed to a more cautious attitude among some governments as well as overseas investors. Even very large TNCs today think twice before committing managerial and financial resources to projects in developing countries that they perceive as presenting a relatively high level of risk. And with fewer potential investors, governments may face a greater risk that bidding processes for specific projects will be less competitive.

Tackling the complex and multifaceted challenges requires concerted action by all parties concerned. The ultimate responsibility for creating an environment that is conducive to long-term infrastructure investments and for prioritizing and taking the necessary decisions with regard to the potential role of the different stakeholders in different projects rests with national and subnational governments in each country. In some cases, cooperation among several countries in a region may be necessary to maximize the benefits from infrastructure investments. For many developing countries, especially LDCs, national efforts have to be complemented by active support from the international community.

This chapter reviews current developments with regard to national and international policymaking in the area of infrastructure investment, focusing, in particular, on areas of relevance to TNC participation. Thus the analysis only briefly covers issues related to sectoral reform and broader regulatory matters. The chapter is structured as follows. Section B provides an overview of recent trends in host-country policies aimed at attracting TNCs and enhancing the potential benefits from their participation. It reviews the extent to which countries allow and promote TNC participation in different infrastructure industries and analyses the various contractual arrangements and policy options that countries use in order to derive benefits from the presence of TNCs. Section C considers the role of international investment agreements (IIAs) and examines potential implications of the rising incidence of investor-State disputes related to infrastructure. Section D highlights the role of home countries and international institutions in facilitating foreign infrastructure investment in developing countries, wherever this is desirable, and section E concludes.

B. Host country policies to attract and benefit from TNC participation

A growing number of countries have opened up their infrastructure industries and are actively seeking to involve TNCs through FDI and other forms of participation. TNCs can bring benefits to a host country if the circumstances are right, but their involvement may also present risks that governments need to consider (chapter IV). This section looks at national measures to attract TNCs in infrastructure and to maximize the benefits they can bring. It begins by emphasizing the importance of a country's overall institutional and regulatory framework. It then considers the extent to which countries permit TNC activity in infrastructure and the role of investment promotion agencies (IPAs) in this context. The subsequent sections discuss the policy implications of different forms of TNC participation and various approaches to enhancing the social development gains from their involvement.

1. Building the institutional and regulatory framework

With or without TNC participation, countries need to develop strong legal and regulatory systems to ensure efficient as well as equitable pricing, investment and delivery of infrastructure. Moreover, the quality of the overall institutional environment is a major determinant of a country's ability to attract and benefit from foreign investment (chapter IV). The creation of participatory, transparent and accountable governance systems that promote and enforce the rule of law is critical in this context. Before committing funds to a project, companies consider whether laws and contracts are likely to be properly enforced, and whether their rights and responsibilities are well defined and likely to be respected (section III.D). Clear, transparent and well-enforced rules of conduct, grounded in law, are important for reducing the risk of political or popular backlashes against projects. In this context, governments also need to understand the implications and costs of compensating a company if the contract is unilaterally terminated.

If an adequate regulatory framework is not in place, there is an increased risk that countries will lose out by opening up. Moreover, once a country liberalizes, it is often hard to reverse the process. This makes the *sequencing of reform* important. A case can be made for gradual reforms that enable a country to develop the institutional capabilities first before designing and actually implementing the reforms

(see, for example, *WIR04*). Competitive restructuring, the introduction of regulations and the establishment of an independent regulatory agency should precede steps towards liberalization. Such a sequence helps clarify the rules of the game for investors, and governments become better prepared for engaging in a specific project. In reality, however, opening up to foreign investment has often preceded comprehensive sectoral reforms, with less positive results (Fay and Morrison, 2007; Wint, 2005; Wells and Ahmed, 2007; Kessides, 2005). Unless credible regulatory bodies can be established, most developing countries are likely to be better off keeping their utilities in the public domain, in particular the profitable ones (Bull, Jerve and Sigvaldsen, 2006). In fact, governments require greater skills and capabilities to privatize and to govern privately operated infrastructure than to run State-owned enterprises (SOEs) (Wells and Ahmed, 2007).¹

The legal and regulatory framework for issuing licenses or concessions should define the rights and obligations of utilities, clarify pricing mechanisms and establish procedures for dispute resolution. It may also include conditions for ensuring that efficiency gains are shared with consumers. To the extent possible, the institutional framework should seek to minimize the possibility for conflicts of interest between participants (i.e. competing firms, remaining monopolies and consumers) in the provision of physical infrastructure and related services. Although the specific features of infrastructure industries necessitate a greater reliance on regulation of the sector (chapter III), competition policy also plays an important role. Even when the benefits outweigh the costs of unbundling (chapters III and IV), opening up needs to be complemented by competition laws and authorities sufficiently equipped to enforce these laws (Kessides, 2004: 69; Newbery, 2006). Without a competitive restructuring of infrastructure industries, privatized companies may more easily acquire a dominant position. Competition authorities should have the mandate to review regulatory decisions, assess their impact on competition and take action against firms that use the regulatory process for anticompetitive purposes.

Another important element of reform is the establishment of independent and accountable regulatory agencies to implement laws and regulation in infrastructure industries. An autonomous regulatory agency that is separate from the executive branch of the government is more likely to help maximize benefits from reforms, balancing the interests of consumers and service providers and providing foreign investors with a degree of assurance that they are protected from political intervention (Fay and Morrison, 2007; Sader, 2000).² A strong regulatory agency can be a useful counterweight to political opportunism as well as to opportunistic investors. Investors may try to

shift risks to consumers or taxpayers by demanding renegotiation of key elements of governing contracts. They may threaten withdrawal from a project, calculating that the government, concerned with the disruption of service, will give in to their demands. The incidence of contract renegotiations has been found to be much higher in countries with weak or no regulatory agencies (Guasch, Laffont and Straub, 2003).

There are few clear yardsticks or rules of thumbs that policymakers can use when designing and implementing sectoral infrastructure reforms and opening up to TNC involvement (Estache and Fay, 2007; Woodhouse, 2006). However, some general principles have been developed that may help governments in this area, including by the Organisation for Economic Co-operation and Development (OECD) (box V.1). Other policy guidelines include those developed by the United Nations Commission on International Trade Law (UNCITRAL) (UNCITRAL, 2004); the United Nations Economic Commission for Europe (ECE, 2008) (box V.2); and the United Nations Industrial Development Organization (UNIDO, 1996).

TNC involvement represents just one of several options policymakers can consider to develop their infrastructure. Governments need to weigh the potential benefits and risks involved (chapter IV) by studying all options – from privatization to traditional government provision. If a decision is made to involve TNCs, it is important to develop an overall policy for such participation and to set clear goals, values and principles (ECE, 2008: 19). This includes making sure that the views of existing constituents are reflected in the decision-making process and in project execution.

As noted above, inviting TNCs to deliver infrastructure services tends to place more rather than less responsibility on public officials. Governments that decide to engage TNCs in infrastructure industries therefore need to develop the expertise and capabilities required for the public sector to administer often highly complex projects. This is equally important at the regional and municipal levels of government, which are responsible for a growing number of infrastructure projects but generally have limited resources and institutional capabilities.

Eventually, however, the only way to gain the necessary experience is through learning by doing (i.e. by engaging in an actual project). In this context, it may be advisable to start on a small scale rather than adopting a major programme across industries. It may also be useful initially to concentrate on less contentious segments of an industry. In the case of water, for example, network operations and billing are the most politically contentious aspects, as these activities involve direct interaction with

Box V.1. The OECD Principles for Private Sector Participation in Infrastructure

The OECD *Principles for Private Sector Participation in Infrastructure* were designed to help governments that wish to involve private investors, including foreign companies, in the development of their infrastructure industries. They were developed in consultation with a broad group of public and private sector experts as well as some from civil society. The Principles do not advocate private participation; rather, they suggest that governments should be guided by an objective assessment of what best serves the public interest – that is, supports the common well-being. In this context, a number of factors should be considered, including current conditions, what households and companies can afford, coverage, efficiency, long-term maintenance of assets as well as social and environmental sustainability. The Principles can be applied by governments in both developed and developing countries and address five main sets of challenges:

1. Deciding on the utility and nature of potential private sector involvement;
2. Providing a sound institutional and regulatory environment for infrastructure investment;
3. Ensuring public and institutional support for the project and choice of financing;
4. Making cooperation between the public and private sectors work;
5. Communicating governments' expectations about responsible business conduct to their private partners.

The Principles are intended to serve as a first step in the authorities' consideration of private sector participation. They can also be used as a template for country self-assessment at national and local government levels, aid public authorities to report on progress, provide guidance for private enterprises and serve as a tool for structuring regional and other intergovernmental cooperation and public-private sector dialogues.

As a follow-up, a specific application of the Principles was launched for the drinking water and sanitation sector. The practical guidance to optimize private sector participation in this area involves three interlinked dimensions: adapting the Principles to the sector, building an information base of country experiences, and engaging discussions at the regional level. To this end, a round table was organized jointly by the New Partnership for Africa's Development (NEPAD) and the OECD – as part of the NEPAD-OECD Africa Investment Initiative – in Lusaka in November 2007, and in March 2008 the OECD and the Asian Development Bank held a joint expert meeting.

The resulting guidelines (to be launched at the Istanbul World Water Forum in 2009) are intended to help governments and other stakeholders to properly assess the implications of involving private actors in the financing, development and management of water and sanitation infrastructure. This should enable them to better manage such involvement, including through an appropriate allocation of roles, risks and responsibilities and the establishment of the necessary framework conditions. The focus is mainly on developing and transition economies. The private sector operating in this area comprises a range of players, such as international investors, local and regional actors, small-scale water operators, construction companies, joint ventures between public and private companies as well as public companies operating abroad as private participants in competitive bidding.

Building on the application of the Principles in the water and sanitation sector, the OECD plans to develop a similar framework for energy to support the institution's efforts in addressing the impacts on climate change.

Source: UNCTAD, based on information provided by the OECD (see OECD, 2007b and www.oecd.org/daf/investment/ppp).

final consumers. In contrast, bulk water provision (including mobilization of new water resources and building reservoirs and water treatment works) does not directly involve the customers.³

However, if countries wish to involve TNCs in infrastructure activities that are complex to manage, as in water, it may be appropriate to start with low-level contracts. For example, technical assistance or management, operations and maintenance contracts do not attract capital inflows, but neither do they have the potential for controversy or entail the same level of costs and contractual risk. On completion of such a contract, the government can choose to revert to municipal operation, award a follow-up contract on similar terms (through an open tender or by negotiation with the original contract holder), or develop a concession contract. Another option may be to corporatize the public operators in the sector

and recruit managers with private sector experience to run the operations (Estache and Fay, 2007: 27–28). Whatever the nature of TNC involvement, low-income countries are likely to benefit from partnerships with various development partners that can contribute both financial resources and expertise.

2. Openness to TNC involvement varies by industry and country

Since the Second World War, the opening up of infrastructure industries to foreign investment has been much slower than in other industries. It was only in the early 1990s that developing and transition economies began in earnest to dismantle legal barriers to private – and often foreign – investment in infrastructure. Today, many countries have some foreign involvement (chapter III). As

Box V.2. The ECE Guidebook on public-private partnerships

A common misconception about public-private partnerships (PPPs) is that they require less public sector involvement; in reality they demand more. PPPs require a strong public sector that is able to adopt a new role and perform new skills. Weak institutions can hamper the implementation of PPP programmes. Moreover, poorly constructed, non-transparent projects can lead to failure and considerable frustration. This in turn can generate a backlash and political opposition towards the whole concept of partnerships between the public and private sector in infrastructure development.

The United Nations Economic Commission for Europe (ECE) has prepared a *Guidebook on Promoting Good Governance in PPPs* (ECE, 2008). Its purpose is to assist Governments in realizing the benefits from PPPs through a strengthening of their governance frameworks. The Guidebook sets out seven principles of good governance and the ways each principle can be achieved with respect to:

- A coherent PPP policy to provide clear direction and leadership;
- Strong enabling institutions within the Government, with skills in identifying, initiating, delivering and monitoring projects;
- A legal and regulatory framework that offers clarity, simplicity and predictability in legal processes;
- Fair risk-sharing between public and private sectors;
- Transparency, openness and fairness in selecting private partners;
- Putting people first by making the projects accountable to them for performance and delivery; and
- Sustainable development, ensuring the outcomes have the maximum developmental impact and respect for the environment.

With these principles as a basis, the ECE is currently elaborating a toolkit entitled *How to do PPPs*, consisting of training the trainer modules for a PPP capacity-building programme designed to improve PPP governance.

Source: UNCTAD, based on information provided by ECE.

with private sector participation more generally, the trend towards opening up to TNC participation has been more widespread among developed countries and the relatively advanced developing and transition economies. Although the nature of liberalization has varied significantly, all groups of countries are now more open to TNC activities in infrastructure than they were two decades ago. However, national investment policies with respect to infrastructure development are generally still more restrictive than those relating to manufacturing and other service industries (UNCTAD, 2006d: 19; Golub, 2003).

There are significant differences across infrastructure industries as regards the degree of openness, for various reasons. Some factors relate to the nature of each industry, notably the scope for unbundling and competition (chapter III). Reaping benefits from TNC involvement is easier in infrastructure industries that are relatively easy to expose to competition (such as mobile telephony) than in those characterized by a natural monopoly (such as water distribution). Other factors are related to the characteristics of the host country environment, including the level of development and the quality of administrative capabilities.

There have also been exogenous factors at play. During the 1980s and 1990s, a number of developing countries opened up to TNC investment in response to structural adjustment policies of the International Monetary Fund or as part of loan conditionalities of the World Bank.⁴ In the 1990s, privatization became a

key element of loan conditionalities in the electricity sector, and privatization and/or cost recovery policies were recurrent conditionalities in the water sector (Bayliss, 2001; Grusky, 2001). Such conditionalities sometimes seem to have led governments to privatize in a hurry in order to be able to access aid funds. In some cases this meant shortening the privatization processes, for example by failing to establish sound regulatory bodies. Privatization and liberalization are still included as conditions in World Bank and IMF loans, but less frequently,⁵ and these institutions, which still exert considerable influence, have not given much attention to alternative policy prescriptions. Moreover, there are few donors that completely disregard private involvement in the infrastructure sector (Bull, Jerve and Sigvaldsen, 2006: 26).

a. In electricity, openness is the greatest in the generation segment

A 2006 study found that 17 of 50 developing and transition economies had a total ban on foreign investment in electricity (UNCTAD, 2006d). The Asian region was generally more restrictive than Latin America and the Caribbean.⁶ A large number of low-income countries were seen to have full State ownership of power utilities: 32 out of 47 countries of sub-Saharan Africa, compared to only 8 countries that had concession contracts and 7 that had management or lease contracts with private partners (Gokgur, 2004).⁷ In some countries, State-owned enterprises (SOEs)

coexist with private (including foreign) operators that may be allowed to enter the market by way of greenfield projects (Wang, 2008; Nazareth, 2008). Private independent power providers (IPPs) (many of them foreign) often operate alongside SOEs (World Bank, 2004a). As expected, openness to foreign involvement is greater in electricity generation than in distribution, and very low in transmission (Estache and Goicoechea, 2005; see also section V.B.3).

b. Almost all countries allow TNCs to invest in telecommunications

The extent to which foreign companies are allowed to participate in *telecommunications* similarly differs by segment and country. More countries allow foreign investment in mobile telephony than in fixed line telephony, partly because it has been easier to introduce competition in the former (ITU, 2007b), and because technological capabilities are not sufficiently developed by domestic firms. The first privatization of an incumbent telecommunications provider took place in the United Kingdom in 1981 with the sale of Cable and Wireless.⁸ Among developing countries, the Government of Chile was the first to privatize when, in 1988, it divested its shares in CTC and ENTEL. In most developing countries, incumbent telecommunications operators have rarely been fully privatized. Instead, part of the operators have been sold through private sales, public offerings or a combination of the two, with the government retaining some ownership. By the end of 2006, about half of all developing countries had sold all or part of their incumbent operators, often to TNCs. Of the 78 developing countries that partly or fully privatized their telecom operators, 82% sold significant stakes to a strategic foreign investor, while the remaining 18% divested shares through initial public offerings (Minges, 2008).

In general, there is greater openness to TNC involvement in this industry in developed countries than in developing and transition economies (OECD, 2003; UNCTAD, 2006d). The number of countries without TNC involvement is shrinking.⁹ Today, it is estimated that only 10 developing countries lack any

form of TNC involvement in telecommunications,¹⁰ and only a few countries have outright prohibition of foreign investment. In Ethiopia, *Proclamation No. 281/2002* identifies government-owned Ethiopian Telecommunications Corporation as the sole telecommunications service provider.¹¹ In Costa Rica, telecommunications has also been regarded as a natural monopoly.¹² However, following the ratification of the Central American Free Trade Agreement in October 2007, a Government bill was adopted in May 2008 that will allow private companies to offer wireless services.¹³

In other countries, there are caps on foreign investment (table V.1). India, for example, has imposed a ceiling on the level of foreign ownership in telecommunications, which was raised from 49% to 74% in 2005 with the aim of attracting more foreign investment.¹⁴ In Bolivia, by contrast, the country's President announced in May 2008 that the Government would take immediate control of ENTEL, in which Telecom Italia then held a 50% stake.¹⁵

c. Water remains highly restricted

The *water* industry remains relatively closed to foreign investment. As the costs of production are low relative to the transportation costs, unbundling is not especially attractive (chapter III). Unsurprisingly, more than 90% of all water utilities are run by public entities, either at the national or local level (World Bank, 2007c; Hall and Lobina, 2006: 3).¹⁶ Most contracts with TNC participation are concessions or operation and management contracts (chapter III).¹⁷ During the period 1985–2008, in developing countries, TNCs have been involved in the provision of water to at least 184 million people.¹⁸ Apart from Chile, however, they are not known to provide any significant water services in rural areas (Hall, Lobina and de la Motte, 2004: 3; Owen, 2008). Their absence in rural areas reflects the income gap between rural and urban households and difficulties in achieving the economies of scale needed to reduce costs.

The private sector provided water to more than 30% of the population in only 6 of the 70 developing

Table V.1. Foreign ownership restrictions in telecommunications, selected developing countries, latest year

Country	Restrictions
China	49% limit, and up to 50% for value-added services.
India	74%, with the remaining 26% owned by Indian citizens or companies.
Indonesia	35%
Malaysia	30%, and permit >50%, but has to be reduced after 3 years.
Mexico	Concessions granted only to Mexican nationals. Foreign investment can be no greater than 49% except for cellular telephony services where permission is required from the Commission of Foreign Investment for a higher level of foreign participation.
Philippines	40%
Singapore	49% on facilities-based operators.
Thailand	49%

Source: UNCTAD, based on the ICT Regulation Toolkit, Table 3.6, available at: <http://icttoolkit.infodev.org/en/PracticeNote.aspx?id=2551>.

countries listed in table V.2; in most of the economies, the corresponding share was below 5%. At the same time, about 60% of the countries have seen some TNC involvement during the past two decades. Current trends in TNC involvement differ considerably. For example, in the Central African Republic, Chad and Guinea, TNCs are no longer present. Their exit has been due to war and political instability, the end of the contractual period, and a general wish to withdraw interests from the region (Owen, 2008). In other economies, such as Argentina, Bolivia, Brazil, Malaysia, the Philippines, Thailand and Viet Nam, the trend is towards emphasizing local private sector rather than foreign participation (table V.2). By contrast, China, India and a number of West Asian economies are increasingly interested in encouraging TNC participation in water projects (Owen, 2008).

d. Road transport the most open, rail transport the least

There is limited information on the openness to TNC involvement in *transport infrastructure*. A recent study of developing and transition economies found that the average level of restrictions on foreign investment within transportation – including infrastructure and related services – was lowest in *road transport* and the highest in *rail transport* (UNCTAD, 2006d).

e. Rising concerns related to the strategic nature of infrastructure

In recent years, policymakers in both developed and developing countries have cautioned against foreign investment in “strategic” infrastructure. While there is no common agreement as to what is

to be regarded as “strategic”, this tendency has been associated with national security or public interest concerns (chapter I), and seems to be particularly pronounced in the case of cross-border M&As where the acquiring company is State-owned (*WIR06*).

A recent review of the FDI policies of 11 countries found that most of them impose some sort of limitations or review requirements on foreign investment related to energy infrastructure (United States, GAO, 2008: 19; see also box I.2).¹⁹ In the United States, the Foreign Investment and National Security Act of 2007 explicitly requires the Committee on Foreign Investment in the United States to investigate any transactions involving an acquiring company that is controlled by a foreign government or that concern critical infrastructure (Ibid.: 32–33). China includes power generation, power distribution and telecommunications among industries deemed critical to the national economy, and the Russian Federation includes natural monopolies and telecommunications in its definition of “strategic sectors”.²⁰ Several countries, especially in Latin America and the Caribbean, have also adopted or are considering policies aimed at re-nationalizing infrastructure (box V.3).

* * *

To conclude, many countries are today open to TNC involvement in infrastructure. However, there are significant variations by industry, and recent years have also witnessed growing concerns with respect to foreign control of certain infrastructure segments. The highest degree of openness has been observed in mobile telephony, while water services remain the least open to TNC participation. Openness is generally higher in industries that are easier to unbundle and expose to competition, and in more developed economies. Large-scale projects and those requiring

Box V.3. Recent re-nationalizations in infrastructure

The Government of *Argentina*, in 2006 rescinded its contract with Aguas Argentinas, which was responsible for providing water services to the greater Buenos Aires metropolitan area. This provoked a dispute with Suez Lyonnaise des Eaux and Veolia Environnement (both French), both of which held shares in the company. Earlier, in mid-2004, Argentina had re-nationalized the San Martin railroad, previously in the hands of Argentine company Metropolitano.^a The *Bolivarian Republic of Venezuela* in 2007 nationalized the electricity company, Electricidad de Caracas, as well as the main telecoms company, CANTV, and its mobile unit, Movilnet. In the *Dominican Republic*, in 2003 the Government decided to re-purchase the shares of the private company Union Fenosa in the privatized electricity distribution companies EdeNorte and EdeSur (*WIR04*). In *Bolivia*, President Morales on 1 May 2008 announced that the country’s largest phone company, ENTEL, would be bought from its current owner, Telecom Italia (EIU, *Business Latin America*, 12 May 2008). In the *Russian Federation*, a dispute is pending concerning the re-nationalization of Moscow’s Domodedovo airport.^b A number of re-nationalizations of infrastructure have also been announced in developed countries, including in Estonia and Slovakia (chapter II).

Source: UNCTAD.

^a See www.thefreelibrary.com/argentina:+government+rescinds+contract+with+aguas+argentinas,...-a0144164403.

^b On 20 March 2008, the 10th arbitration appeals court upheld a lower court ruling in January 2008 to return a large amount of the airport’s property to federal ownership, including parts of the terminal. The Government has argued that the airport was illegally privatized in 1997 (see: www.themoscowtimes.com/article/1010/42/361633.htm).

Table V.2. Private sector and TNC involvement in water projects, selected developing economies, December 2007

Economy	Private sector participation (PSP)		TNC involvement	
	PSP during past 20 years	Share of population served by PSP projects	TNC involvement during past 20 years	Comment
LDCs				
Bangladesh	No	0%	No	
Burkina Faso	Yes	5%	Yes	Limited to operation & management (O&M) projects
Cambodia	Yes	>1%	No	Small local companies gaining concessions
Central African Rep.	Yes	0%	Yes	Civil war led to the SAUR company ending its SODECA concession
Chad	Yes	0%	Yes	Renationalization (2004) as Veolia ended O&M contract
Congo, Dem. Rep. of	No	0%	No	Cascal declined to enter into a management contract in 2004
Guinea	Yes	0%	Yes	SEEG lease contract expired in 2001
Guinea-Bissau	No	0%	No	Suez has provided technical assistance since 1991
Lesotho	No	0%	No	External support for PSP may evolve into a management contract
Malawi	No	0%	No	
Mali	Yes	1%	Yes	Bouygues has a concession for the main towns
Mozambique	Yes	4%	Yes	Bouygues is involved in a management contract
Nepal	No	0%	No	
Niger	Yes	14%	Yes	Veolia has a broadly based O&M contract
Senegal	Yes	32%	Yes	10 year O&M contract was renewed for another 5 years in 2006
Sudan	Yes	0%	Yes	Status of Cascal's water PSP contract awarded in 2007 is uncertain
Tanzania, United Rep. of	Yes	0%	Yes	Cascal O&M contract revoked in 2005
Uganda	Yes	2%	No	Emphasis is on medium-sized local companies
Zambia	Yes	0%	Yes	A short-term contract completed
Other developing economies				
Algeria	Yes	29%	Yes	Desalination and water management contracts underway
Argentina	Yes	11%	Yes	Most major TNC contracts have ended
Bahrain	No	0%	No	PSP under consideration for some years
Belize	Yes	0%	Yes	Cascal has an O&M contract
Bolivia	Yes	0%	Yes	Government policy against private/TNC participation
Brazil	Yes	27%	Yes	Many TNCs have sold project stakes, strong local PSP
Cameroon	Yes	25%	Yes	ONEP won bid on privatization of SNEC in 2007
Chile	Yes	81%	Yes	TNCs have divested some of their holdings
China	Yes	10%	Yes	Market is welcoming to TNCs, albeit competitive
Côte d'Ivoire	Yes	29%	Yes	Bouygues operates a concession
Cuba	Yes	5%	Yes	Agbar is expanding its activities
Dominican Rep.	Yes	15%	Yes	One large O&M contract
Egypt	No	0%	No	PSP laws passed in 2000, no contracts signed
Ecuador	Yes	19%	Yes	Two TNC concessions
Gabon	Yes	44%	Yes	Veolia concession listed on local stock exchange
Ghana	Yes	27%	Yes	Vitens and Rand Water operate a PSP contract
India	Yes	1%	Yes	Supportive environment emerging
Indonesia	Yes	5%	Yes	Major concessions by TNCs, regional players emerging
Iran, Islamic Rep. of	No	0%	No	
Iraq	No	0%	No	
Jordan	Yes	45%	Yes	One water BOT for Amman & Northern Jordan, plans for further contracts.
Kazakhstan	Yes	2%	Yes	Some small O&M contracts
Kenya	No	0%	No	Veolia has a support contract
Korea, Rep. of	No	0%	No	Wastewater PSP with TNCs
Kuwait	No	0%	No	Wastewater PSP since 2001, no water PSP
Lebanon	No	0%	No	Beirut PSP plans postponed in 2002
Malaysia	Yes	64%	Yes	Trend towards concessions run by local companies
Morocco	Yes	22%	Yes	Veolia and Suez operate a series of concessions
Namibia	No	0%	No	Veolia has a wastewater contract, no water contracts
Nigeria	No	0%	No	Little progress on PSP
Oman	Yes	31%	Yes	One desalination and one water contract awarded to TNCs in recent years.
Pakistan	No	0%	No	
Panama	Yes	9%	Yes	One contract (Cascal)
Paraguay	No	0%	No	No formal PSP
Peru	Yes	3%	Yes	Small TNC projects
Philippines	Yes	13%	Yes	Major projects being handed over to local investors
Qatar	Yes	0%	No	Desalination by a local consortium
Saudi Arabia	Yes	15%	No	A series of management projects under development
Singapore	Yes	10%	No	Current emphasis on local players
South Africa	Yes	2%	Yes	Pressure on TNCs to provide free water in contracts
Sri Lanka	Yes	>1%	No	
Taiwan Province of China	Yes	14%	Yes	Major project developed, slow PSP progress
Thailand	Yes	3%	Yes	Shift towards local players
Trinidad & Tobago	Yes	0%	Yes	No contract has replaced Severn Trent O&M contract
Tunisia	No	0%	No	A series of formal PSP proposals are under development
Turkey	Yes	2%	Yes	Small-scale TNCs active, especially in sewerage
United Arab Emirates	No	0%	No	Water and desalination PSP projects being developed
Uruguay	Yes	11%	Yes	Agbar divested to local partners, others continue
Venezuela, Bolivarian Rep. of	Yes	0%	Yes	Low-key PSP presence
Viet Nam	Yes	1%	Yes	TNCs now discouraged
Zimbabwe	No	0%	No	PSP project awards withdrawn

Source: UNCTAD, based on Owen, 2008.

Box V.4. UNCTAD survey on openness to TNCs in infrastructure: some preliminary findings

In research for *WIR08*, UNCTAD conducted a special survey of its member States to examine their level of openness to TNC involvement in infrastructure industries. Questions were related to the extent to which the legal framework allowed private and foreign companies to participate; what forms of involvement were allowed; possible requirements on foreign companies; and possible incentives offered to attract TNCs. The survey focused on legal aspects rather than actual private or foreign involvement. The questionnaire was distributed in March 2008 and by mid-July, 26 governments had responded.^a

In general, the survey results confirm the patterns found in other studies (box table V.4.1). The overall picture is one of relatively high levels of openness. For example, all responding countries stated that TNC involvement was allowed in electricity generation, and at least 80% of the countries allowed it in roads, seaports, airports, electricity distribution, mobile telephony, water supply and sewage infrastructure. In most industries, developed countries are more open to both private and foreign company involvement. However, in airports, seaports and mobile telephony, the share of developing and transition economies that were open was higher than that of developed countries.

In network industries, such as railways and electricity transmission, only 60–70% of the respondents stated that TNCs were allowed to participate. The water industry was more open than expected; all developed countries and almost three quarters of the other economies allowed TNC participation. Somewhat surprisingly, more countries permitted TNCs to engage in water supply than in sewage infrastructure.

Openness to foreign TNCs appears to be highly, though not entirely, correlated with openness to private companies. In telecommunications, however, while all respondents allowed private participation, only 79% and 88% of them allowed TNCs to participate in fixed and mobile services respectively.

Due to the relatively low response rate, the above analysis is a preliminary assessment. A more complete analysis of relevant issues will be prepared by UNCTAD once a sufficiently large number of responses have been obtained from member States. That analysis will include detailed information on the forms of involvement that are permitted by different countries, possible requirements imposed as well as incentives offered.

Source: UNCTAD.

^a Eighteen developing and transition economies: Albania, Algeria, Bosnia and Herzegovina, Botswana, the Dominican Republic, Egypt, Gabon, Guinea, Indonesia, Mauritania, Mauritius, Mexico, Monaco, Qatar, South Africa, Sri Lanka, Trinidad and Tobago and Turkey; and eight developed countries: the Czech Republic, Estonia, Finland, Germany, Greece, Japan, Romania and Switzerland.

Box table V.4.1. Share of countries that legally permit private and foreign companies, respectively, to be involved in selected infrastructure industries, 2008
(Percentage share of responses)

Industry	All countries		Developing and transition economies		Developed countries	
	Private	Foreign	Private	Foreign	Private	Foreign
Transportation						
Road	87	83	88	75	86	86
Rail	75	71	71	56	86	86
Seaports	91	86	94	81	88	83
Airports	87	83	94	81	67	67
Electricity						
Generation	100	100	100	100	100	100
Transmission	64	60	56	56	71	71
Distribution	75	80	72	78	86	86
Telecom						
Fixed	100	79	100	76	100	86
Mobile	100	88	100	88	100	86
Water						
Water supply	86	86	80	80	100	100
Sewage	81	81	73	73	100	100

Source: UNCTAD Survey, conducted March–July 2008.

high levels of technological know-how similarly tend to be more open. These findings are supported by preliminary results from an UNCTAD survey of openness in selected infrastructure industries (box V.4). However, many governments are showing greater interest in restricting inward FDI in selected infrastructure industries due to strategic and national security concerns.

3. Investment promotion agencies attach growing importance to infrastructure

A growing number of countries have moved beyond the removal of barriers to TNC involvement in selected infrastructure industries to promoting it

actively. This section presents the findings of a joint UNCTAD and the World Association of Investment Promotion Agencies (WAIPA) survey of the role of investment promotion agencies (IPAs) in attracting FDI in infrastructure and related services (box V.5).

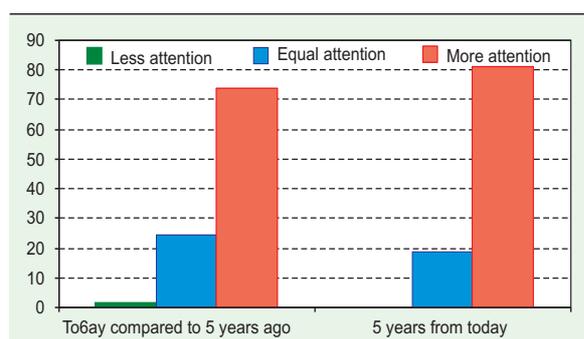
The survey found that IPAs are paying increasing attention to these industries (figure V.1): about 70% of the respondents stated that they were actively seeking FDI in these industries, while only 24% were not.²¹ Almost three quarters of all respondents stated that attracting foreign investment into infrastructure industries is more important today than five years ago, and an even higher share (80%) expected infrastructure to become an increasingly important aspect of their work until 2012. Only one IPA said it pays less attention to infrastructure today

Box V.5. The UNCTAD-WAIPA survey of IPAs

In April–June 2008, UNCTAD and WAIPA conducted a joint questionnaire-based survey of all WAIPA members on the role of IPAs in attracting FDI in infrastructure and related services. A total of 70 questionnaires were completed, representing an overall response rate of 33%. A geographical breakdown of the responses shows a fairly similar distribution as that of the WAIPA membership. However, IPAs from developed countries were somewhat overrepresented and those from Africa somewhat underrepresented. The questionnaire was completed mainly by directors or deputy directors of IPAs. In general, responses were of high quality, with between 80% and 100% of questions completed by each IPA.

Source: UNCTAD.

Figure V.1. Degree of IPA attention to infrastructure industries, 2008
(Percentage of responses)



Source: UNCTAD-WAIPA Survey of IPAs, April–June, 2008.

than five years ago, and no IPA expected its interest in infrastructure investment to decline over the next five years. This increased focus seems to be justified, as UNCTAD's 2008 *World Investment Prospects Survey* identified infrastructure (and especially telecommunications) as among the most promising industries for future international expansion by large TNCs (see chapter I).

IPAs show varying degrees of interest in different infrastructure industries (table V.3). The picture largely confirms the broad patterns of openness to TNC involvement presented earlier. Almost half of

the respondents said they were actively promoting foreign investment in *electricity generation*. The second most preferred infrastructure industry was *Internet services* (44%), followed by *airports* (41%). The industries that were targeted by the smallest percentage of IPAs were *electricity distribution* (17%) and *transmission* (19%). However, there is significant regional variation in terms of priorities. For example, while only one developed-country IPA actively sought to attract TNCs into road transport infrastructure, about 40% of those in developing and transition economies did so. In developed countries, Internet services were the most frequently targeted (45%); in Africa, electricity generation (79%) and Internet services (71%) topped the list; in Asia, road transport and electricity generation (46%) were the most often mentioned; in Latin America and the Caribbean the greatest interest was in seaport infrastructure and electricity generation (44%); while in South-East Europe and the CIS, airport infrastructure was the most preferred target (71%).

General promotion (e.g. providing information through brochures or special events and targeting of potential investors) was reported to be the most commonly used approach to attract TNCs in infrastructure. Other means commonly used are special privatization programmes and the use of dedicated public private partnership (PPP) programmes. Many

Table V.3. Share of IPAs that promote FDI into specific infrastructure industries, by region, 2008
(Percentage of responding IPAs)

Infrastructure industry	All countries	Developed countries	Developing countries	Africa	Asia	Latin America and the Caribbean	SEE and CIS
Transport							
Roads	31	5	42	43	46	38	48
Seaports	37	30	42	50	31	44	29
Airports	41	35	40	57	23	38	71
Railways	24	15	28	50	23	13	29
Electricity							
Generation	49	30	56	79	46	44	57
Transmission	19	0	26	36	23	19	29
Distribution	17	5	23	36	23	13	14
Telecommunications							
Fixed	29	20	30	50	23	19	43
Mobile	40	40	40	57	38	25	43
Internet services	44	45	42	71	31	25	57
Water and sanitation							
Water supply	33	26	33	43	23	31	57
Sanitation	26	15	28	29	23	31	43
Number of responses	70	20	43	14	13	16	7

Source: UNCTAD-WAIPA Survey of IPAs, April–June, 2008.

countries also apply incentives, payment or legal guarantees. However, the tools used vary by industry (figure V.2). IPAs indicated that whereas general promotion was used in all infrastructure areas, it was used the most for road transport. Privatization (and PPP) programmes appeared to be especially common for airports, seaports, and water and sanitation. Incentives were used mainly for the various telecommunications segments.

Only a minority (30%) of the responding IPAs stated that they targeted infrastructure TNCs from specific home countries or regions. However, such targeting was somewhat more common among IPAs in the developed world (40%). The most frequently mentioned home regions were the United States and the EU (or a specific EU member State), followed by South-East Asia and the Gulf region. Specific developing home economies mentioned included Brazil, China, India, Malaysia, Mexico, Singapore, Taiwan Province of China and Turkey. Among developing economies, only one in four IPAs targeted specific home countries or regions. Their focus was on TNCs from Asia, apart from those from the United States and the EU. Two IPAs from economies in transition indicated that they targeted specific countries, notably Austria and Germany.

To conclude, the UNCTAD-WAIPA survey suggests that infrastructure investment is of growing importance to IPAs. This signals strong interest in involving TNCs in future infrastructure projects. The findings largely mirror the general patterns of openness to TNC involvement in different industries described in earlier sections of this report. Most developing-country IPAs do not target specific home countries when they promote infrastructure

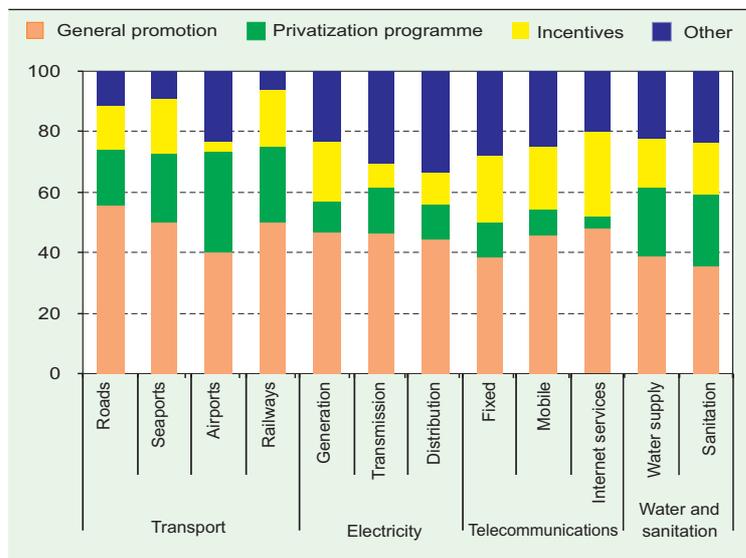
investment. However, judging from the information presented in chapter III (table III.10), there may be a case, especially for low-income countries, to target TNCs from other developing countries, at least in transport infrastructure.

4. Managing different forms of TNC participation

Beyond the overall institutional and regulatory framework, investments in infrastructure typically require the negotiation of a contract between the host country and the foreign investor(s). Contractual arrangements aim at supplementing the applicable laws and regulations of the host country with regard to the investment at stake. The contract consists of a tailor-made agreement that responds to the particular requirements of each project and the intentions of the contracting parties.²² This makes it important for countries to develop the knowledge and capabilities needed to determine the desirable forms of TNC involvement, to negotiate with foreign investors and to monitor project implementation.

As noted in chapter III, many different types of TNC involvement exist, ranging from full privatization to management contracts, with various kinds of PPPs in between. The choice of contract type dictates the ownership/control mix as well as allocation of risks over a project's life cycle. The picture differs considerably by industry. In water and transportation, various forms of PPP dominate. In telecommunications, most projects with TNC participation have involved privatizations or greenfield investments, while in energy, concessions dominate. Given the diversity of projects, it is difficult to generalize about the appropriateness of different types of contracts.

Figure V.2. Promotion instruments, by infrastructure industry or service, 2008



Source: UNCTAD-WAIPA Survey of IPAs, April–June, 2008.

Infrastructure projects are far from simple to negotiate and implement. Adequate legal frameworks and institutional stability are prerequisites for successful project implementation. Contracts need to establish a set of durable relationships that take into account the tendencies of actors to behave strategically and in their self-interest over a project's life cycle. Overarching contract types formalize financial arrangements and govern shifts in ownership and control during the period of the project. This implies, inter alia, specifying in advance under what conditions services should be provided over an agreed period (say 15–30 years), allocating risks between the various parties and how prices

and guarantees should develop. Changes in policies, demographics and technology can be expected to influence the operational environment over the project's lifetime, and many contracts have been renegotiated in response to demands by either the private or the public party (chapter IV). Renegotiations are often related to the scope of work, service level of commitments and pricing.²³

The allocation of risk is critical in this context. Two basic principles for risk allocation are that (i) the party responsible or with more control over the risk factor should be the one bearing the risk; and (ii) the party that is more able to bear the risk (i.e. that is less risk-averse) should do so (Guasch, 2004; Fay and Morrison, 2007). How they are applied in practice depends on many factors, such as the industry and country in which the project is to be undertaken, as well as the bargaining power of the negotiating parties. Indeed, TNCs may have an interest in negotiating a contractual arrangement that shifts as much of the risks as possible to the host country government. While this may enhance the chances of attracting more foreign investment, governments must be careful not to make too many commitments and offer to cover too much of the risks. Experience has shown that, as a result of past commitments, several governments today face very large contingent liabilities (chapter IV).

As parties to a contract often have diverging interests, the final contract is the product of negotiations and bargaining. Successful negotiations require adequate skills and expertise – resources that are not always available in developing countries. Asymmetries of information and experience – for example, between an experienced TNC and a municipality with little experience of TNC involvement – can constitute a significant problem. Public sector staff may find it difficult to match the resources of the private sector (e.g. Wells and Ahmed, 2007). Ex-post monitoring of contracts can also be both costly and difficult.

In the context of the bidding process, governments need to ensure that the financial sponsor(s) and the operator of the infrastructure project have adequate experience and capacity to deliver, and that the project is financially viable. Ideally, company selection should be done through transparent and competitive processes with well-defined bidding criteria. Lessons from Latin America and the Caribbean suggest that it may be advisable to fix tariff levels in advance and to establish clear rules relating to factors that might justify future tariff adjustments or renegotiations of other contractual aspects. The contract should then be awarded to the company that is prepared to pay the most for a concession, or accept the lowest subsidy when

agreeing to produce an otherwise unprofitable service (Guasch, 2004; Fay and Morrison, 2007).

In practice, it is not easy to achieve the ideal agreement. There is a risk that bidders will behave opportunistically and present their offers with the intention of demanding quick renegotiations of the contract soon after it has been awarded. This may help to explain why so many infrastructure contracts have been renegotiated within the first two years of the contract period. In addition, finding a sufficient number of bidders on a contract can be a major challenge, especially for low-income countries.

With a view to reducing the risk of speculative bidding, governments might consider some form of realistic and flexible incentive-based regulation. For example, if a company outperforms its efficiency targets, benefits from its better-than-expected performance could be shared between the company and the government. Governments may also improve their bargaining power through regional collaboration. For example, a regional regulator could help pool comparative data and expertise. If enough data are assembled on project and operating cost elements in a range of circumstances and expectations, each government will have a better basis for judging whether potential bids are credible or not. A regional body could also help in reviewing bids.

Political commitment at the highest level is an essential ingredient to align and anchor related public sector accountabilities, allocate resources and address sources of institutional inertia. This is particularly important where there may be a potential conflict between public and private interests and when concerns exist about the loss of public control over the provision of public services (Scott, 2007).

An added challenge is to retain the necessary skills – legal, technical and financial – within the government sector. Even in developed countries, expertise tends to migrate to the private sector over time because of higher salaries. As a result, the capacity of governments to monitor the performance of projects can be seriously curtailed (Verkuil, 2007). These problems are often accentuated in developing countries, and they underscore the importance of proper legal and financial counsel. While major TNCs tend to make use of international law firms specializing in project finance transactions, most of which are based in the United States and the United Kingdom,²⁴ it is often difficult for developing countries to find the corresponding support. International institutions, including the World Bank Group, regional development banks, export credit agencies and others, offer capacity-building services in this area (section V.D), but there is a need for more assistance. This will become all the more important if

the current trend of relying on TNCs spreads further to low-income countries.

5. Factoring in social objectives

Enhancing the broader value to society requires attention to key social objectives, such as making services universally accessible and affordable to the poor (chapter IV). The social dimension of infrastructure is particularly important in the context of water, which is an essential resource and considered a basic human right (chapter III; ECOSOC, 2002; Anand, 2007), but also in other industries. A key challenge is to meet the twin targets of cost recovery (i.e. to make the investment financially sustainable) and wider access to the service (i.e. to make the investment socially sustainable). The challenge is accentuated in low-income countries, as weak purchasing power of households may make it virtually impossible to recover the costs of certain infrastructure services through user charges.

Several policy lessons can be drawn from experience with water concessions (UNDP, 2006). First, the complexity of giving increasing access to the poor should not be underestimated. The poor are not a homogeneous category. Connection costs can be a huge barrier.²⁵ In many low-income countries, the majority of the poor have to satisfy their water needs through an array of private “informal” providers, typically paying much higher rates than those connected to the municipality’s distribution system. Social policies (such as tariff structure and increasing coverage rates) to accompany concession operations, along with regulation of informal providers and subsidies for connections may need to be considered. A second lesson is that transparency matters. There is a need to build public support through proper understanding of the processes, and to take into account the views of the poor. Without this, services cannot be tailored to users or community needs, and the capacity of communities to undertake system maintenance is often overlooked. Finally, regulation and governance of concession arrangements are essential. Increased efficiency and coverage of water systems has mainly been due to independent regulation, rather than to State ownership of utility companies (UNDP, 2006).

Three basic types of policy instruments can be identified to address the need for improved access for the poor: imposing requirements on investors to provide access (service obligations); reduced costs of connection and consumption; and an increased range of suppliers to provide more choice to consumers (Estache and Fay, 2007: 19). In some, mainly developed, countries with private sector providers of water services, social policies are incorporated into contractual obligations. However, in developing

countries, private companies have often managed to negotiate exemptions from such obligations (Prasad, 2007: 13). To recover costs and achieve universal access to water in areas with weak purchasing power, experience to date suggests that tariff payments have to be subsidized in some form (WEF, 2006; chapter IV). But subsidies remain controversial. On the one hand, they can sweeten the deal for TNCs, making an otherwise unattractive investment commercially appealing. They may also help widen the consumer base to reach larger segments of society. On the other hand, they may reduce the incentives of private companies to make infrastructure projects efficient and profitable (Zhang, 2000: 735), and they may result in the company offloading the costs of a project on to the government while it realizes most of the benefits accrued.

Subsidies can be financed from different sources and take several forms. In the case of water, governments have used cross-subsidies, public subsidies, rising block tariffs and deliberately low tariffs, among others (Prasad, 2007). Rising block tariffs work on the principle of increasing tariffs per unit of water for higher levels of consumption, and low water usage per account has a low fixed cost per unit of water. This approach is based on the notion that “water for necessity” should be relatively cheap while “water for luxury” should be relatively expensive. In theory, low tariffs should benefit everybody at the lower end of consumption and should be offset by higher tariffs at the upper end. However, the actual effects may be different. First, better-off people may have private wells (Aquafed, 2007). Secondly, group purchases by less well-off people may mean that they have to buy water at a relatively high price (UNDP, 2006). Thirdly, there is a relatively weak correlation between income and water consumption (Fay and Morrison, 2007). Evidence from the water industry in Latin America suggests that subsistence blocks were often set too high, while tariffs were not sufficiently progressive, suggesting that the subsidies were not well targeted.²⁶ In 2001, the Government of Chile started to provide a “water stamps” scheme to allow low-income residents to recover part of their water fees (Castro, 2006).

Another example of a subsidy is “take or pay” clauses, which involves a commitment on the part of the government to ensure revenue streams for the investors by making up the difference between user demand and previously agreed company revenues. Such subsidies are generally funded through taxes. The risk is again that the subsidy could become a disincentive for companies to produce efficiently. A third form involves providing consumers with financial support for infrastructure use (World Bank, 1997: 37).

As is often the case, there is no one-size-fits-all solution: the approach has to be adapted to the specific circumstances. Regardless of the form of subsidy employed, however, governments may seek to apply certain criteria to determine the appropriateness and success of different subsidies (Irwin et al., 1997; Kerf et al., 1998; World Bank, 1997). First, the subsidy should benefit the segment of the population that is targeted. Secondly, it should ensure that the infrastructure service becomes affordable to the user. Thirdly, it should not distort the use of the service or create inefficiencies in service provision. Fourthly, it should not undermine competition. Fifthly, it should be transparently awarded and measurable in financial terms. Finally, the transaction costs of implementing the subsidy and the costs to the economy at large from funding the subsidy should be minimized.

C. International investment agreements and investment disputes

1. The role of international investment agreements

While national legislation and investment contracts between a host country and the foreign investor are the principal legal foundation for TNC participation in infrastructure investments, international investment agreements (IIAs) can add an important component to this relationship. By concluding IIAs – such as bilateral investment treaties (BITs), regional, sectoral, plurilateral or multilateral investment-related treaties, or economic cooperation agreements that include investment provisions – contracting parties may agree to refrain from taking certain measures detrimental to the investment, such as “unfair” treatment, discrimination, expropriation without compensation, or transfer restrictions. While such protection can be particularly important for infrastructure investment, it can also be sensitive from the host country point of view. This has been highlighted by the more than 90 known treaty-based investor-State disputes related to infrastructure projects (section V.C.2).

The socially sensitive nature of infrastructure, the huge costs involved, and its strategic importance for the economic development of a host country make the sector more prone to State involvement than most other economic activities. Host countries typically have to exercise their regulatory powers during the preparation, implementation and operation phase of the investment. Consequently, governments need to ensure that the IIAs they enter into leave them with

sufficient autonomy to regulate infrastructure projects in the public interest. However, this objective may be at odds with the goal of foreign investors to obtain maximum protection against changes in government policies and regulations. Striking the “right” balance in IIAs between these diverging interests thus becomes a key challenge. Here, special attention is given to the role of IIAs in terms of influencing the entry and treatment of foreign investors in infrastructure.

The first area in which IIAs may limit a government’s regulatory power is with regard to the *entry* of foreign investors. In general, IIAs do not reduce the sovereign right of a host country to admit or reject foreign investment in infrastructure in its territory. If a country does not wish the involvement of foreign investors in some or all of its infrastructure industries, or in a particular project, IIAs generally do not pose an obstacle. A few agreements, however, include binding obligations concerning the pre-establishment phase (box V.6). But even IIAs that grant foreign investors non-discriminatory treatment with regard to their establishment in a host country generally contain reservations relating to investment in infrastructure.²⁷

A special area to consider relates to national security concerns mentioned above (section V.B). Several governments have taken action to prevent foreign takeovers of domestic infrastructure companies where such companies are considered to be of strategic importance for the country, or they have forced foreign investors to disinvest. In the latter case, government action may amount to an expropriation, in which case the host country has to pay compensation according to the expropriation provision of the relevant IIA. There is an issue as to whether a host country can be exempt from this obligation if the IIA includes a “national security exception”. Such exceptions usually allow contracting parties to take any measures they consider necessary to protect their essential security interests, provided there is no arbitrary discrimination or a disguised investment restriction. A host country may argue that domestic control over a strategic infrastructure project is required for national security reasons. If such a clause is drafted in a “self-judging” manner it can give host countries considerable discretion in assessing whether a foreign investment in infrastructure poses a threat to national security.²⁸

The second main area in which IIAs may limit a host country’s sovereign regulatory power is in the *treatment* of established investors. Most IIAs provide protection at least against discrimination, unfair treatment, expropriation, transfer restrictions and often also against breaches of other commitments that a host country has made. Any one of these provisions is potentially important for infrastructure investments,

Box V.6. Establishment rights in IIAs

The most common approach in IIAs covering the pre-establishment phase is that foreign investors may claim non-discriminatory treatment (i.e. national treatment and most-favoured-nation treatment) concerning their establishment in a host country. However, this right may be subject to reservations concerning specific sectors, which ensure that foreign investors can make investments, including in infrastructure, only to the extent desired by the host country. Examples of IIAs that cover the pre-establishment phase include NAFTA, the Framework Agreement on the ASEAN Investment Area, the Colonia Protocol for the Promotion and Reciprocal Protection of Investments within MERCOSUR,^a and BITs of Canada, Japan and the United States. These IIAs have adopted a “top-down” liberalization approach, identifying those industries that are not open to foreign investment.

A multilateral agreement that deals with pre-establishment rights in infrastructure services is the WTO General Agreement on Trade in Services (GATS). Its approach to scheduling commitments on national treatment and market access is based on a positive determination of sectors (and modes of supply) in which liberalization commitments are scheduled, combined with a negative list of non-conforming measures. The GATS method is “bottom-up” (i.e. limiting liberalization to those industries and activities where contracting parties have made a positive commitment). The extent to which countries have made liberalization commitments under the GATS concerning mode 3 (service supply through commercial presence in the territory of any other member) varies greatly by industry. Among the industries included in box figure V.6.1, telecommunications is the industry in which the most (71%) WTO members have scheduled commitments, while energy distribution has the lowest share (12%). In the case of water distribution, however, no country has scheduled any commitment.

A more ambitious approach has been adopted by the EU. The EU Treaty provides for an absolute right of establishment (i.e. not only non-discriminatory treatment), which may only be denied on grounds of public order. An important question in this context is whether foreign investment in infrastructure considered by the host country to be strategically important could be rejected for public security reasons. The European Court of Justice interprets this derogation narrowly and requires that there be “a genuine and sufficiently serious threat to a fundamental interest of society”.^b

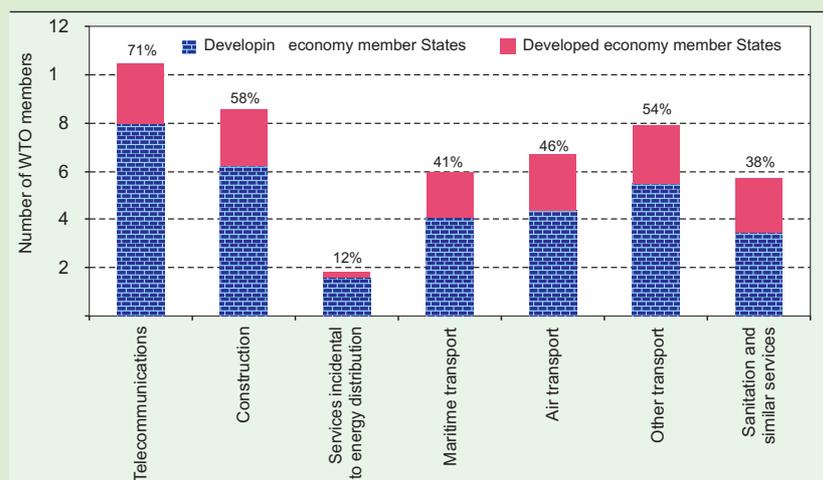
Source: UNCTAD.

^a The Colonia Protocol for the Promotion and Reciprocal Protection of Investments within MERCOSUR has not yet entered into force.

^b See Case C-483/99 Commission v. France [2002] ECR I-4781, para. 48; see also Case C-503/99 Commission v. Belgium [2002] ECR I-4809, para. 47; Case C-463/00 Commission v. Spain [2003] ECR I-4581, para. 72; Case C-207/07 Commission v. Spain [2008] Judgment of 17 July 2008, para. 47.

Box figure V.6.1. Infrastructure-related sectoral patterns of commitments in the GATS

(Number of WTO members with at least one commitment in the relevant industry; and percentage of members with commitments in the sector)



Source: UNCTAD, based on Adlung and Roy, 2005.

Note: In this figure, developing economy member States include member States with economies in transition.

and many of them have received particular attention in recent disputes related to infrastructure investment (section V.C.2). These are reviewed below.

Many IIAs contain a provision requiring contracting parties to grant investors of the other contracting party *fair and equitable treatment*. Originally perceived as a minimum standard of treatment that protects foreign investors against “outrageous” or “bad faith” actions of the host country,²⁹ it has gradually evolved into a more demanding code of behaviour for States. Arbitration

tribunals nowadays increasingly focus on whether the measures of the host country have violated the “legitimate expectations” of the foreign investor (section V.C.2). A host country needs to know how free it is to impose regulatory changes that are potentially inconsistent with the legitimate expectations of investors if it concludes an IIA that obliges it to grant foreign investors fair and equitable treatment.

Most IIAs include an obligation requiring contracting parties to grant established investors in

their territory *national treatment* and *most-favoured-nation treatment*. With regard to infrastructure, this provision may imply, for example, that a host country must not treat foreign investors less favourably than competing SOEs or foreign investors from other countries. Privileges reserved for SOEs, such as those related to funding, could contradict an IIA that has a national treatment provision. Also, contracting parties may have to ensure non-discriminatory treatment in relation to access to infrastructure networks.

Recent re-nationalizations (box V.3) in the area of infrastructure have brought the *expropriation* article in IIAs back into the limelight. To the extent that host countries are bound by IIAs concluded with home countries of the foreign investors concerned, they could be obliged to pay compensation in accordance with the expropriation article in the agreement if they decide to expropriate the assets of a foreign investor or nationalize an entire industry. The expropriation provisions in IIAs could also become relevant in case of nullification or substantial alteration by the host country of existing contracts with a foreign investor.

More generally, host countries are confronted with the risk that changes in their laws and regulations in respect of foreign investment in infrastructure amounts to a regulatory taking for which compensation needs to be paid.³⁰ Such taking would occur if, as a result of the regulatory measure, the investment is no longer economically viable, although the ownership status of the foreign investor remains formally untouched. More than in other industries, there may be instances where foreign investors in infrastructure claim that regulatory actions of a host country constitute an indirect expropriation. The problem is accentuated by the fact that many developing countries are still in the process of establishing and completing infrastructure-related laws and regulations. Other developing countries have started to re-evaluate their previous privatization policies and are considering corrective measures.

Another important provision is the “*umbrella clause*” (or “*respect clause*”). Numerous IIAs include a commitment of the contracting parties to respect any other obligation that they have assumed with regard to investments of investors of the other contracting party. This provision covers host country obligations deriving from investment contracts – common in infrastructure – with foreign investors.

2. Infrastructure-related investment disputes

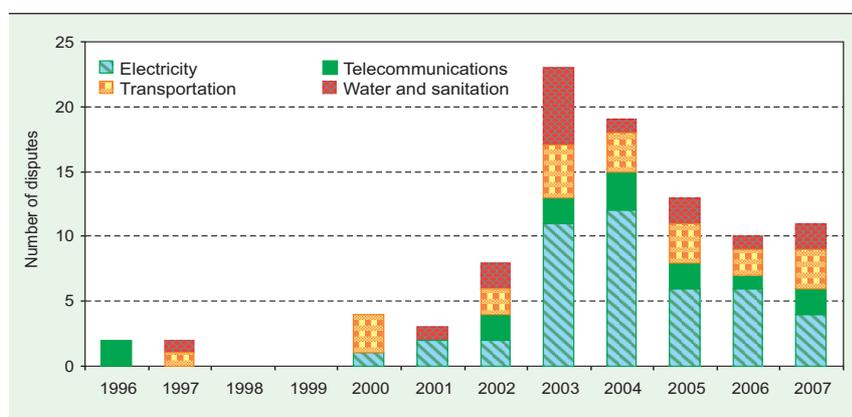
a. Many investment disputes are related to infrastructure

At the end of 2007, 95 disputes – or about one third of the cumulative number of known treaty-based disputes – were related to electricity, transportation, telecommunication, water and sanitation (figure V.3).³¹ Until the end of 2002, the number of new infrastructure disputes per year had been in the single digits. In 2003, as many as 23 disputes were recorded, mainly linked to electricity and water. Since then, the annual number of new disputes has fallen, but never below 10.³²

At least 41 governments – 25 of them in the developing world, 12 in developed countries and 4 in transition economies – have faced investment treaty arbitration in one or more of these industries. Argentina tops the list with 26 claims lodged against it. Other countries with multiple known claims include India (9), Turkey (6), Hungary (5), Ecuador (4), Poland (3) and the Czech Republic (2). In terms of industry distribution, the largest number of known disputes relates to electricity (44), followed by transportation (21), water and sanitation (16) and telecommunications (14) (figure V.3).

Circumstances and the main substantive issues of infrastructure investment disputes vary by industry. In *water and sanitation*, disputes relate to investment in water distribution and sewage services as well as to the construction of dams. Investors have brought claims alleging violations of treaty obligations based on, for example, interferences with the tariff regime of the underlying water services concession (box

Figure V.3. Number of known infrastructure-related investment disputes, 1996–2007
(Annual new cases)



Source: UNCTAD, based on information from UNCTAD's Investor-State Disputes database (www.unctad.org/ia).

V.7),³³ lack of security and termination of concession agreements.³⁴

In *telecommunications*, disputes have arisen with regard to both mobile and fixed telecommunications. Investors have brought claims against States alleging violations of treaty obligations based, for example, on failure to abide by a cooperation agreement entered into with the investor aimed at securing a mobile phone licence,³⁵ imposing on the foreign mobile provider the subsidization of fixed-line operators (box V.8), dispossession and loss of control of the investment in the national telecommunications company,³⁶ termination of a contract to operate a mobile phone network,³⁷ and expropriation and nationalization.³⁸

In *transportation*, disputes have been recorded with regard to investments in the construction of highways, roads, bridges, tunnels, airport terminals, waterways and railways, as well as in the operation of port terminals, airport terminals, toll highways and railway networks.³⁹ Investors have brought claims alleging violations of treaty obligations based, for example, on deception and misrepresentation in connection with the investment contract,⁴⁰ delays in handing over the land,⁴¹ non-payment of construction bills,⁴² discriminatory treatment,⁴³ interference in setting the toll fees to be charged on the highway,⁴⁴ termination of the investment contract,⁴⁵

annulment of the investment contract (box V.9), and expropriation.⁴⁶

In *electricity*, disputes have arisen with regard to investment in electricity generation (including construction and operation of power plants) and distribution. Investors have brought claims alleging violations of treaty obligations based, for example, on the conduct of the host State in the following areas: unsuccessful conclusion of the investment contract,⁴⁷ failure to turn over the land,⁴⁸ discriminatory treatment,⁴⁹ interference with the tariff regime,⁵⁰ revocation of the operating permit,⁵¹ non-payment for delivered electricity,⁵² failure to enforce electricity rate and prevent electricity theft,⁵³ termination of the contract and expropriation.⁵⁴

b. Recent arbitral decisions on core IIA provisions

At the end of 2007, of the 95 known treaty-based disputes in infrastructure investment, 38 had been concluded either through settlement (20) or a final decision of the arbitration tribunal (18). Thus, the majority of the known disputes remained pending (57). Whereas almost 30% of the disputes in electricity had been settled, none of the disputes in water and sanitation sectors had reached a conclusion through settlement at the time of writing this report.

Box V.7. Vivendi v. Argentina

In May 1995, Compagnie Générale des Eaux (France) (later Vivendi Universal) along with two Argentine construction companies and a Spanish firm purchased a 90% shareholding in Compañía de Aguas del Aconquija S.A. (CAA), an Argentinean company which had been awarded a 30-year concession agreement with the Argentine Province of Tucumán for the provision of water and sewage services. In accordance with the agreement, CAA had to make substantial investments to improve service quality. The contract entailed refurbishing the chlorination system, arranging the cleaning of the drinking water system, leasing buildings and purchasing supplies and new equipment.

Soon after the concession had been taken over, the newly elected Government expressed its discontent with a tariff increase. The legislature of the Province recommended that the Governor impose unilaterally a temporary tariff reduction. Furthermore, following two episodes of turbidity in the drinking water, the Provincial Government – supported by the Federal Government – and CAA commenced negotiations to reorganize both parties' obligations in the concession contract. Finally, unable to reach a positive outcome CAA gave notice of its termination of the contract in August 1997.

In the same year, the investors initiated ICSID proceedings claiming that (i) the investment had been expropriated without compensation and (ii) the action of the Province was in violation of the “fair and equitable treatment” standard under the Argentina-France BIT. About \$317 million plus interest was sought in damages.

In its defence, Argentina argued that the case involved exclusively contractual matters (i.e. disputes arising under the concession agreement) over which the Tribunal had no jurisdiction. Furthermore, it argued that, faced with the claimants' material breaches of the concession agreement, the Province had the right and the responsibility to take the requisite steps to ensure the availability of safe drinking water for its population on an affordable and accessible basis.

After one of the longest running disputes at ICSID, a tribunal found Argentina to be liable for violating the Argentina-France BIT (*inter alia* by expropriating a water and sewage concession) and ordered it to pay \$105 million in compensation. The decision is currently under discussion before an annulment committee.

Source: UNCTAD, based on ICSID Case No. ARB/97/3. *Compañía de Aguas del Aconquija S.A. and Vivendi Universal v. Argentine Republic*, (Argentina/France BIT), Award of 20 August 2007.

Box V.8. Telenor v. Hungary

Pannon GSM Telecommunications Rt, an affiliate of Telenor (Norway), provides mobile services in Hungary. Among various regulatory initiatives taken by Hungary between 2001 and 2003 to bring its telecommunications regime in line with EU norms, the country introduced a “universal service” programme. It stipulated that all telecommunications providers would pay a small portion of their revenue into a central fund that would be used to compensate fixed-line service providers for providing below-cost telephone access to individuals in poor or rural areas.

In 2003, Telenor initiated ICSID arbitration alleging that the programme constituted expropriation in violation of the Hungary-Norway BIT, as it required mobile operators to subsidize services provided by fixed-line operators at the State’s request. Telenor also alleged that the programme violated the treaty guarantee of fair and equitable treatment. The company sought damages of up to \$152 million.

In its defence, the respondent argued that it was in the nature of regulation that it involved some sort of wealth deprivation and that Telenor’s contention according to which any form of interference with the investor’s property or diminution of its value constitutes expropriation would be out of line with expropriation jurisprudence. Accordingly, in the respondent’s view, the Tribunal lacked jurisdiction as the BIT permitted arbitration only with regard to claims of expropriation.

In September 2006, the ICSID tribunal rejected the claims, as the Hungary-Norway BIT provided for arbitration only with regard to expropriation. The measures at issue were found to fall short of a substantial economic deprivation of the investment required to constitute expropriation.

Source: UNCTAD, based on ICSID Case No. ARB/04/15 *Telenor Mobile Communications A.S. v. Republic of Hungary* (Hungary/Norway BIT), Award of 13 September 2006.

Most arbitral decisions (at least in known cases) are eventually made public, though the terms of settlement are invariably confidential.⁵⁵ With regard to their outcome, 7 arbitral decisions accepted the investor’s claim, at least in part, while the remaining 11 were rejected either for lack of jurisdiction or on the merits.

Regarding the infrastructure investment disputes that have been concluded with an award of an international tribunal (either accepting or rejecting the investor’s claim) and for which information is available, out of a total of \$6.16 billion in claimed damages, tribunals have awarded \$649.3 million. This corresponds to little more than 10% of the total damages claimed, or 25% of the amounts claimed in the nine disputes in which damages were awarded (see annex table A.V.1).⁵⁶ The large majority of arbitral decisions have addressed one or more of the following investment protection standards: fair and equitable treatment, expropriation and the umbrella clause. Some observations on recent decisions are made below.⁵⁷

(i) Fair and equitable treatment

Several infrastructure-related investment disputes are based on alleged violation of the fair and equitable treatment (FET) standard. For host countries involved in such disputes, it is worth noting that recent arbitration practice has tended to interpret this principle in a relatively broad manner. Accordingly, the applicability of the FET standard is not limited to conduct attributable to the host State aimed at undermining the investment.⁵⁸ Rather, recent awards emphasize the importance of protecting the

investor’s legitimate expectations with regard to the maintenance of a stable and predictable legal and business framework.⁵⁹ In *Parkerings-Compagniet AS v. Lithuania*,⁶⁰ the tribunal specified certain criteria for determining the legitimacy of the investor’s expectations in the stability of the legal system.⁶¹ A clarification of the scope of “legitimate expectations” is crucial for preserving each State’s right to exercise its regulatory power in the area of infrastructure. However, arbitral case law is still evolving and it remains unclear to what extent future arbitration awards will follow the reasoning in the *Parkerings-Compagniet* dispute. Furthermore, certain tribunals have considered the effect of the investor’s conduct when determining whether the FET standard had been infringed. This has been done where investor conduct is deemed relevant in determining the nature of the respondent State’s actions, or where the actual cause of the loss to the investor is an issue.⁶²

(ii) Expropriation

The issue of *direct* expropriation was dealt with in, for example, *ADC v. Hungary*. In this case, the tribunal found that the Government’s actions in taking over the investor’s activities concerning the operation of two terminals at Budapest airport did not comply with the requirements of a lawful expropriation under the IIA.⁶³ A more controversial issue, particularly for infrastructure investments, is under what conditions regulatory activity of a host State amounts to an *indirect* expropriation. Investment tribunals have focused on balancing two competing interests: the degree of the regulation’s interference with the right of ownership, and the power of the State to adopt

Box V.9. Fraport v. the Philippines

In 1999, Fraport AG (Frankfurt Airport Services Worldwide) initiated a series of direct and indirect investments in PIATCO, a company in the Philippines that held a concession to construct and operate an international terminal at Manila airport. Over time, the Terminal 3 concession became the subject of domestic discontent and was also at the centre of a legal controversy, as the legality of the concession and related agreements came under review for alleged fraud.

In 2002, the administration of President Macapagal-Arroyo sought unsuccessfully to renegotiate the concession, which had been agreed to by a previous administration. Subsequently, the Philippines Supreme Court declared the concession and related contracts null and void since (a) the original concessionaire had not been properly pre-qualified as financially able to undertake the contract and (b) the concession agreement was entirely different from the draft concession agreement that had been tendered, resulting in greater financial advantages to the concessionaire.

In 2003, Fraport sought ICSID arbitration against the Philippines alleging violation of the Germany-Philippines BIT and seeking \$450 million in damages. The respondent argued that the tribunal lacked jurisdiction in this arbitration, as the protections afforded by the BIT (including consent to jurisdiction) did not extend to investments made in violation of Philippine law. In the respondent's view, the duty to comply with the host State's law is an ongoing one which must be respected throughout the period in which the investment is made. According to the respondent, the investor openly sought to evade the nationality requirement under Philippine law limiting foreign ownership of the capital of a public utility to 40% through the device of "indirect" ownership coupled with secret shareholder agreements. On the other hand, the investor's central position on jurisdiction was that its investment, which allegedly totalled more than \$425 million, was made in accordance with Philippine law, with the result that the investment must be deemed accepted under the BIT.

The majority of the tribunal members in August 2007 held that the tribunal had no jurisdiction over the claim. It concluded that Fraport had not made an "investment" in accordance with Philippine law that was required to enjoy protection under the BIT. In January 2008, Fraport initiated an annulment proceeding with ICSID.

Source: UNCTAD, based on ICSID Case No. ARB/03/25, *Fraport AG Frankfurt Airport Services Worldwide v. Republic of the Philippines* (Germany/Philippines BIT), Award of 16 August 2007.

its policies. In evaluating the degree to which the government's actions interfere with an investment, tribunals have highlighted the importance of the economic impact of the action (i.e. whether there was an effective change of control or ownership of the investment and/or interference with the investor's reasonable expectations) and its duration.

Another issue of particular relevance for infrastructure-related investments is linked to the expropriation of contractual rights. The difficulty here lies in distinguishing between an ordinary breach of contract and the expropriation of contractual rights. For the latter, investment tribunals require that (a) the host State has acted in its sovereign capacity and (b) the breach of the contract has given rise to a substantial decrease in the value of the investment. For example, in *Vivendi v. Argentina*,⁶⁴ the tribunal concluded that the claimants' concession rights had been expropriated because the conduct of the Argentinean Province constituted "sovereign acts designed illegitimately to end the concession or to force its renegotiation" which "struck at the economic heart of, and crippled, Claimants' investment".⁶⁵

(iii) Umbrella clause

An issue brought several times before arbitration tribunals is whether the umbrella clause protects against breach by the host State of any kind

of obligation it has entered into vis-à-vis a foreign investor (e.g. a commercial contract), or whether such protection is limited to obligations entered into by the host State in its capacity as a sovereign (e.g. a concession agreement). This distinction can have huge implications for the host country. For example, under a broad interpretation of the umbrella clause, a "mere" dispute about the agreed quantity of electricity to be purchased by the host State from the investor could give rise to treaty-based arbitration. A narrow understanding would exclude arbitration in this case, unless the purchase commitment was included, for example, in a concession agreement. Arbitration tribunals have taken different stances on this issue. While the tribunal in *LESI-DIPENTA v. Algeria* opted for a broad interpretation,⁶⁶ the one in *El Paso v. Argentina* excluded ordinary commercial contracts from the scope of the umbrella clause.⁶⁷

Another question of considerable relevance for host countries is whether the umbrella clause applies only to cases where the claimant investor and the host country itself, rather than an agency or subdivision, are parties to the contract that the umbrella clause seeks to protect. The tribunal in *Azurix v. Argentina* required the parties to the underlying contract and the parties that had agreed upon the umbrella clause to be the same.⁶⁸ By contrast, the tribunal in *El Paso v. Argentina* appears to have affirmed that the

obligations of the State on which the umbrella clause confers protection potentially include obligations entered into by State entities or subdivisions for whose conduct the State would be responsible at the international level.⁶⁹ As a result of these contradictory awards, there is still a high degree of uncertainty as to the precise scope and effect of umbrella clauses. This is only partly attributable to variations in IIAs.⁷⁰

3. Conclusions and implications

A review of recent arbitration decisions shows that many investor-State disputes have arisen in all the main infrastructure industries, and relate to a wide range of issues. It also shows that less than half of the awards rendered have favoured the claimant, and that damages awarded have been considerably smaller than the total initial claims made by investors. The fact that more than 90 known disputes have arisen in infrastructure shows that concluding IIAs (and the coexistence of IIAs and State contracts) can have significant implications for host States. At the same time, the number of disputes should be considered in the context of the existence of several thousand IIAs and the huge number of investment projects in infrastructure. In addition, many renegotiations of investment contracts in infrastructure never reach the arbitration stage.

The disputes have provoked debate over the implications of IIAs, and especially BITs. As noted above, most known disputes related to infrastructure have relied on clauses in BITs, in particular the principle of fair and equitable treatment, the umbrella clause and the expropriation article. Governments have entered into such treaties with a view to attracting more foreign investment by way of offering better protection for the rights of foreign investors. However, there is some concern that improved protection and certainty for foreign investors has come at the price of too much of a reduction in the government's regulatory flexibility. Some experts further argue that the possibility of investor-State arbitration may discourage States from adopting public welfare regulations in the interests of their citizens (Solanes and Jouravlev, 2007: 12).

Other observers question whether IIAs have been, and ever will be, able to provide the protection they were originally intended to offer investors. TNCs that have seen their cases dismissed, or received damages far below what they had claimed, have found that the protection offered through the BITs was less comprehensive than expected, and many of them have expressed disappointment with the role played by international institutions (Ontiveros, Conthe and Nogueira, 2004).

One major issue is where to draw the line between the two international law principles of "*pacta sunt servanda*" (sanctity of treaties) and "*clausula rebus sic stantibus*" (which allows for the termination or adaptation of an investment contract in case of a fundamental change of circumstances). A common criticism is that tribunals pay too little attention to changes in the circumstances of host countries. It has been observed that "Arbitrators sitting on investor-State panels have often focused on the rights of the foreign investors" (Solanes and Jouravlev, 2007: 8), leaving countries without "guarantees that their legitimate public interest concerns, public policies, and regulations will be considered or taken into account, including issues associated to [sic] human rights" (Ibid: 72; Kriebaum, 2007). In this regard, it may be asked whether the absolute language used in many IIAs, which requires host countries – in all cases – to respect any obligation they have entered into with an investor, would need some refinement to reflect situations where host-country governments have a legitimate reason to demand an alteration of the contractual terms. To this end, IIAs might expressly recognize the right of the host country to deviate from such obligations under specific circumstances.

In case of a dispute, a tribunal would need to consider not only the behaviour of the host government, but also the conduct of the investor. Conduct to be taken into account could, for example, include situations where the investor does not carry out due diligence in assessing the feasibility of the project, or is negligent in the implementation of the investments but then blames the commercial loss on governmental action.⁷¹ Taking the investor conduct into account could lead to a more balanced appraisal of the facts of a dispute and of whether the IIA has indeed been breached. It could also result in lower damages if the investor's conduct can be shown to have significantly contributed to the loss.

Problems of interpretation may be accentuated by the vague language that most IIAs use in connection with the key provisions of relevance to infrastructure investment discussed above. Ambiguous text and its interpretation by arbitration tribunals can result in unexpected rulings for governments and other parties involved. Host countries concerned about these developments might therefore wish to add some clarification concerning the meaning of these treaty standards in an IIA.⁷² On the other hand, there is a risk of the intended elucidation becoming counterproductive by further complicating the content of the IIA. In addition, some awards from investor-State arbitrations have been inconsistent or contradictory, raising further uncertainty about the implications of entering into IIAs. While this can be

seen as a normal development until a more consistent case law develops, it remains a pertinent matter.

Another important issue is that investor-State arbitration, in general, lacks the degree of accountability and transparency mechanisms typically available in domestic courts, such as public records of proceedings, public access to the pleadings, neutral rosters of the judges and the right to appeal (Solanes and Jouravlev, 2007). While ICSID awards are usually made public, a call for more transparency in infrastructure disputes involving the public interest is justified as long as it does not affect the legitimate interests of the disputing parties to protect confidential information and does not place an excessive burden on them (UNCTAD, 2007j). Otherwise, there is a risk of disputing parties shying away from transparency-promoting forms of arbitration and seeking more discreet ways of dispute resolution.

A further key issue concerns the arbitrators. The fact that – contrary to the situation in the WTO – no appeals mechanism is currently available in international investment disputes, gives the arbitrators deciding a case a very powerful role. Choosing the “right” arbitrator therefore becomes a crucial task for the claimant and the defendant host country.

Given the problems mentioned above concerning balanced, clear and consistent treaty interpretation and procedural effectiveness, some experts have advocated that greater efforts be made to seek amicable solutions as opposed to arbitration (see e.g. Wells and Ahmed, 2007). Even if a host country is accused of having violated a clause in an IIA, it does not necessarily follow that it will be drawn before an arbitration tribunal. In light of the high sunk costs involved in most infrastructure investments and the frequent lack of adequate alternative investment locations, foreign investors might well prefer to seek an amicable solution with the host country, which allows them to continue their business under changed conditions. They could resort to alternative dispute resolution mechanisms such as mediation and conciliation (UNCTAD, forthcoming d). However, much depends on the circumstances of each case. From the host country’s point of view, an important consideration is whether its authorities have sufficient regulatory discretion to negotiate an amicable settlement with the investor. The readiness of an investor to seek a mediated solution of the conflict will largely depend on the frequency and gravity of the alleged treaty violation, and whether it can afford to lose time in case that mediation fails. Neither party is likely to be keen to involve a conciliator or mediator if it is convinced that it will prevail in the dispute. Furthermore, alternative dispute resolution may not be in the interest of those who advocate more transparency in investment disputes.

The complexity of these issues, together with the dynamic evolution of IIAs and the related international case law, underline the importance of capacity-building to ensure that developing-country governments understand the implications of concluding such agreements, and are equipped to handle potential investment disputes. UNCTAD contributes to such capacity-building through policy analysis of IIA-related issues and various forms of technical assistance.

D. The role of home countries and international institutions

Given the enormous needs for more infrastructure investment, it is important to consider how home countries and the international community could facilitate more foreign investments in the developing countries that seek such inflows. This is particularly relevant from the perspective of low-income countries, which generally have failed to attract significant TNC involvement in infrastructure development (chapter III). Various home country and international measures have been developed and represent important complements to those implemented by host countries, but more efforts are required.

Four types of interventions are discussed below. The first group of measures relates to official development assistance (ODA) for infrastructure projects, notably in low-income countries. A second set of measures seeks to mitigate non-commercial risks, in particular, that are inherent to infrastructure projects, and especially in countries with weak institutional capabilities. The third type of measures is geared specifically towards strengthening the institutional capabilities of developing countries in the area of infrastructure. The final group of measures seeks to promote the development of cross-border infrastructure projects that can facilitate regional integration.

1. Making better use of official development assistance

As documented in preceding chapters, without subsidies of some form, it is very difficult to attract TNC involvement in many infrastructure projects in economies, communities and industry segments that are characterized by weak purchasing power and poor records of payment. In these cases, multilateral and bilateral development finance institutions can act as catalytic financiers. In industries such as electricity,

water and transport, in particular, there is significant potential for synergies between foreign investment and ODA (UNCTAD, 2008g). By making more funds available, development partners and the home countries of the investing firms could play a significant role in helping to “crowd in” foreign investment into infrastructure projects in developing countries. This is particularly important for addressing the needs of the LDCs and other low-income countries. Furthermore, when allocating aid resources, it is important that increases in ODA for social infrastructure are not made at the expense of ODA for investments in economic infrastructure (UNCTAD, 2008h).

The need for increased international support to infrastructure development in general has been recognized in various forums in recent years, and development partners have pledged significant increases in aid to support such projects, not least with a view to helping meet the MDGs. For example, the report of the Commission for Africa (2005) to the G-8 Gleneagles Summit in 2005 called for additional assistance of \$10 billion per annum to meet Africa’s infrastructure needs by 2010. More recent assessments suggest even higher levels are needed (chapter III).

Some recent trends are encouraging. Between 2002 and 2006, bilateral and multilateral donor commitments to infrastructure (communications, energy, transport and storage, and water supply and sanitation), as reported by the OECD, almost doubled: from \$9 billion to \$17 billion (annex table A.V.2).⁷³ Moreover in 2007, bilateral and multilateral agency members of the Infrastructure Consortium for Africa (ICA) committed ODA and non-concessional lending amounting to \$12.4 billion (box V.10) for various infrastructure projects – a 61% increase over

the \$7.5 billion committed the previous year. Despite such positive trends, current levels of support have not recovered from the earlier period of decline in lending by multilateral institutions. For example, World Bank lending to energy and mining averaged more than \$3 billion during the period 1990–1998, but this figure fell to just over \$1 billion during 2002–2004. Although it has recovered more recently, it was still only a little over \$2 billion in the period 2005–2007 (Besant Jones, 2007).

Some new development partners – particularly China – have also become active in infrastructure, notably in natural-resource-rich countries in Africa (chapter III).⁷⁴ The Government of China supports such investments by providing bilateral aid in terms of grants, and interest-free and concessional loans. China EXIM Bank, the sole provider of Chinese concessional financing, had financed over 300 projects in Africa by mid-2007, representing almost 40% of its total loans (Davies et al., 2008: 3). The Bank’s lending practices of providing concessional loans mostly to infrastructure development are often linked to China’s foreign aid policy. The China Development Bank provides financing on commercial terms. In May 2007, it was designated to manage a \$5 billion China-Africa Development Fund (Ibid: 3). Loans by State-owned Chinese banks are linked to the contracting of Chinese SOEs. Indeed, Chinese TNCs are sometimes involved in bids that other development partners would deem to be too costly but that are strategically important for the Government of China (Corkin and Burke, 2006: 7; chapter III).

Moreover, while development partners have failed to honour their pledged commitments in recent years to scale up infrastructure investments in low-

Box V.10. The Infrastructure Consortium for Africa

The Infrastructure Consortium for Africa (ICA) was established in 2005. Its members include bilateral aid agencies from the G-8 countries, as well as the European Commission, the European Investment Bank, the World Bank Group, the African Development Bank Group and the Development Bank of Southern Africa (DBSA). It is intended to improve the effectiveness of assistance by its members in supporting infrastructure development in Africa through the sharing of information, project development and good practices. Although not a financing agency, the Consortium is intended to act as a platform to broker more donor financing of infrastructure projects and programmes, especially those related to projects with private sector participation in Africa.

ICA seeks to address both national and regional constraints on infrastructure development, with an emphasis on regional infrastructure, recognizing the particular challenges at this level. However, it also engages in efforts at the country level, since regional infrastructure projects generally also affect national budgets and raise various implementation and harmonization issues. A key role of ICA is to ensure a larger and more effective response to Africa’s infrastructure needs, including greater attention to national poverty reduction and other development strategies. ICA will also seek to provide better information on who is doing what, where and with what money, so as to identify gaps. Capacity-building is also on the agenda, as rationalization and expansion of existing capacity-building efforts could help increase aid effectiveness. In addition, ICA recognizes the need for better monitoring of actions and outcomes.

Coordination with China is a growing area of activity of the Consortium. At the Annual Meeting of the African Development Bank in Mozambique in 2008, an agreement was signed with China EXIM Bank for greater information-sharing and possible joint funding of projects in the future.

Source: UNCTAD, based on information from the ICA (www.icafrica.org).

income countries, funds that are available are not being fully disbursed. One study found that the World Bank and the regional development banks at the end of 2004 had unused funds amounting to more than \$200 billion (WEF, 2006: 8). Recent assessments further show that development finance institutions have very high liquidity at present (Te Velde and Warner, 2007).⁷⁵ Among possible reasons for this “infrastructure paradox” are skills shortages, lack of government capacity to prepare bankable projects, and a mismatch between the requirements of development partners and the priorities of recipient countries.

Efforts are needed to ensure that existing funds for infrastructure investment are better utilized. Risk-mitigation, capacity-building and regional cooperation are discussed in the next three sections. There is also need for greater collaboration and cooperation among the development partners. For example, the ICA was established in 2005 to accelerate progress towards meeting the urgent infrastructure needs of Africa (box V.10). While some observers have expressed concern that greater donor coordination could imply reduced policy space and weaken the bargaining power of recipient countries (Bull, Jerve and Sigvaldsen, 2006; UNCTAD, 2008i), collaboration among development partners in the preparation and delivery of projects would be beneficial.

A number of innovative initiatives have been taken in recent years in response to the need for more infrastructure investment in rural communities. Output-based aid is a strategy for using explicit performance-based subsidies to support the delivery of basic services where policy concerns would justify public funding to complement or replace user fees (box V.11). At the industry level, the Energy Poverty Action is an illustration of how joint ODA and TNC

involvement can bring electricity to rural areas in LDCs, while at the same time empowering local communities (box V.12).

In order to make existing ODA funds more efficient in catalysing private (including TNC) investment, it may be necessary to give greater attention to certain risk-mitigating policy instruments (discussed in the next section; and WEF, 2006). Some experts are also suggesting that development finance institutions have to become more willing to take risks in order to make their investment and lending practices more complementary to those of commercial market players, and to enhance the share of their financing to LDCs (Te Velde and Warner, 2007; WEF, 2006: 11–12).

2. Risk-mitigating measures

Given the special nature of infrastructure projects (chapter III), various policy tools have been developed to mitigate risks associated with such investments. While host countries can reduce the level of risk by strengthening their institutions and governance frameworks, such efforts take time. Risk-mitigation measures by home countries and by international organizations can therefore be an important complementary step in the short term to mobilize private financing of infrastructure projects in developing and transition economies. They can complement private market insurers that are also important players in providing investment insurance.⁷⁶ While infrastructure investors are exposed to many types of commercial and non-commercial risks, special attention is given here to measures aimed at mitigating three broad types: political risk (including sub-sovereign and contractual and regulatory risks), credit risk and exchange-rate risk.

Box V.11. The Global Partnership on Output-Based Aid

Output-based aid (OBA) aims at increasing access to basic services, including infrastructure, for the poor in developing countries. It links the payment of aid to the delivery of specific services or “outputs”, such as the connection of poor households to electricity grids or water and sanitation systems. Under an OBA scheme, service delivery is contracted out to a third party, usually a private firm, which receives a subsidy to complement or replace user fees. The subsidy should explicitly target the poor and be performance-based, meaning that most of it is paid only after the services or outputs have been delivered and verified by an independent agent.

In 2003, the Global Partnership on Output-Based Aid (GPOBA) was created. It is a partnership of donors and international organizations aimed at improving service delivery to the poor.^a It provides three types of OBA-related support: technical assistance, dissemination of experiences and best practices, and grants for subsidy funding. The programme covers water, sanitation, electricity, telecommunications, transport, health and education. To date, more than 90 World Bank projects use an OBA approach – more than half of which involve the GPOBA – with a total funding of over \$2.2 billion, predominantly in infrastructure. Since April 2007, the GPOBA has signed 19 grant agreements for OBA subsidy funding for a total of \$72 million. Over 2.8 million people are expected to benefit from these schemes in both rural and urban areas in 17 countries.

Source: UNCTAD based on information from the GPOBA (www.gpoba.org).

^a It was established in 2003 by the United Kingdom’s Department for International Development (DFID) and the World Bank. Other donors include the International Finance Corporation (IFC) of the World Bank, the bilateral aid agencies of the Netherlands (DGIS), Australia (AusAID) and Sweden (Sida). As of June 2008, donor funding for GPOBA totalled \$249 million (including contributions and pledges).

Box V.12. Enhancing rural electrification in Lesotho through the Energy Poverty Action

Among the greatest challenges in meeting the infrastructure gap is to improve access to affordable electricity to rural areas in LDCs. To this end, the Energy Poverty Action (EPA), a joint initiative of the World Business Council for Sustainable Development, the World Energy Council and the World Economic Forum (WEF), has introduced a novel approach. This private sector initiative seeks to use business expertise and best practices to develop innovative, scaleable and replicable energy projects. It was initiated by British Columbia Hydro and Power Authority (Canada), Eskom (South Africa) and Vattenfall (Sweden) at the Annual Meeting of the WEF in Davos in 2005. These corporate partners have signed an EPA Alliance Agreement and have committed to developing an initial project in Lesotho.

An attractive feature of the EPA initiative is its focus on local autonomy (i.e. building the necessary local capacity to empower users to manage, operate and maintain the projects in a sustainable manner). Development finance institutions are to provide funding for the up-front capital investment, but local users will then assume responsibility for all costs associated with ongoing operations and maintenance of the infrastructure thereafter. In 2007, the African Development Bank (AfDB) officially announced its intention to co-finance this project to the value of about \$5.4 million. A formal decision by the AfDB Board for the funding is expected in September 2008.

The preparatory work for EPA's first project in Lesotho is well under way. A local user association, the Mphaki Electricity Distribution Association (MEDA), has been set up. MEDA's members – all connected customers – will be responsible for operation and maintenance on a commercial basis. The EPA and the Government of Lesotho have pledged in-kind contribution to the value of about \$1.4 million (comprising mainly the provision of expertise) for project development and implementation. The infrastructure will be leased by MEDA from the Government of Lesotho under a long-term contract, and bulk power will be purchased by MEDA from existing suppliers. Some 1,850 customers are expected to be connected through grid extension, using either low voltage connections or solar photovoltaic installations, by December 2009.

An EPA Management Unit hosted by the Development Bank of Southern Africa was set up in September 2007 to manage and promote the initiative. Its mid-term objective is to develop the institutional capacity to act as matchmaker between leading electricity companies, governments, local entrepreneurs and communities, as well as national and international financial institutions and donors, for project financing and execution with a view to addressing the challenges of energy poverty. By seconding specialists to the management unit, the alliance partners will provide skills in support of existing projects and the replication or scaling up of new projects. Their activities will include matchmaking, development of pre-feasibility and bankable feasibility studies, project management, collation and diffusion of best practices, and development and implementation of financing mechanisms.

Source: UNCTAD, based on information from the EPAMU.

a. Coverage for political risk

Political risk insurance (PRI) is important for infrastructure projects, especially in countries with weak institutional and regulatory capabilities. Investors and governments today have a better understanding of how to mitigate political risks, and are forging partnerships that bring together the know-how and financing of the private sector with the regulatory backing of the public sector. Guarantees for investments in infrastructure can help investors obtain the necessary project financing from banks. PRI instruments typically cover war and civil disturbance, expropriation and confiscation, and currency convertibility and transferability. The main public schemes for this classical version of PRIs are operated by bilateral agencies with a mission to promote national exports and overseas investment, such as export-import banks and export credit agencies (Winpenney, 2005; Matsukawa and Habeck, 2007). The Multilateral Investment Guarantee Agency (MIGA) is the largest multilateral investment insurer (box V.13). Another international investment guarantee institution is the Inter-Arab Investment Guarantee Corporation.⁷⁷ The Islamic Corporation for the Insurance of Investment and Export Credit

(ICIEC) provides export credit and insurance to its member States and reinsurance facilities to member export credit agencies.⁷⁸

The demand for PRI has been shifting towards coverage of risks that arise from the actions or inactions of a host government that adversely influence the operations of private companies (Matsukawa and Habeck, 2007: 5). Cover for breach of contract and for changes in law and licence requirements is more difficult to arrange than classic PRIs, since they are highly project-specific. However, most international financial institutions now offer some form of cover against these risks, with the World Bank's partial risk guarantee (PRG) extending the most comprehensive coverage. MIGA has also introduced a specific breach of contract guarantee (box V.13).

For certain infrastructure projects, countries may benefit from regional cooperation. For example, the African Trade Insurance Agency (ATI) was put in place by the Common Market for Eastern and Southern Africa (COMESA) to provide political risk coverage for trade and investment projects in its member countries.⁷⁹ It emerged from a World Bank initiative, which provided \$100 million in the form of individual loans to the founding member countries to set up the agency. The ATI is based in Nairobi, Kenya,

and provides insurance cover against both political and non-political risks.⁸⁰

For *sub-sovereign risks*, private monoline insurers can provide so-called wrap guarantees for municipal bonds of sufficiently creditworthy municipalities. Multilateral development banks have traditionally lent to sub-sovereign governments either through or with the guarantee of the relevant sovereign government. The European Bank for Reconstruction

and Development (EBRD) and the IFC have created municipal finance units and provide loan and partial credit guarantee support (including local currency) to selected sub-sovereign governments and entities based on their own credit. Other institutions, including the Inter-American Development Bank and MIGA, can provide PRGs and PRI for municipal concession projects (Mistry and Olesen, 2003; Kehew, Matsukawa and Petersen, 2005).

Box V.13. Investment guarantees by the Multilateral Investment Guarantee Agency

The Multilateral Investment Guarantee Agency (MIGA) protects foreign investors against the political risks of expropriation, breach of contract, currency inconvertibility, transfer restrictions and war and civil disturbance, including terrorism. It insures new cross-border investments originating in any member country and destined for any other developing member country.^a MIGA can provide insurance coverage for up to 15 years (and in some cases 20 years). It also supports investments at the sub-sovereign level, where partners tend to be relatively inexperienced and investments therefore riskier. Coverage for PPPs is another area where MIGA is becoming increasingly active.

MIGA's services have enabled some transactions to materialize that otherwise would not have been possible. For example, a project concerning the development, design, construction, management, operation and maintenance of a new container port terminal in the city of Doraleh, Djibouti, is being developed under a 30-year concession granted by the Government of Djibouti to the main sponsors, DP World (United Arab Emirates) and Port Autonome International (Djibouti) through a joint-venture vehicle, the Doraleh Container Terminal S.A. In 2007, MIGA was approached to provide PRI for this project that was funded through an Islamic financing structure, and issued guarantees totalling \$427 million. By adapting its guarantee services to suit an Islamic financing structure, MIGA was able to issue coverage for an investment supported by such a structure for the first time.

Another recent MIGA-supported project illustrates how PRI can help get infrastructure projects off the ground. In 2006 (fiscal year), MIGA provided \$108 million in coverage for the development of a toll road in the Dominican Republic. With total project costs estimated at \$220 million, the investor, Autopistas del Nordeste (Cayman Islands), contributed \$30 million in equity and the Government agreed to another \$30 million equity stake. The investor and its financial advisers approached the capital markets for a \$162 million bond issue. The credit rating agency Fitch was brought in to rate the transaction. MIGA agreed to provide a partial guarantee of 51% of the bond issue, which allowed Fitch to rate the transaction higher than the sovereign ceiling for the country, resulting in a 40% oversubscription. Thus the political risk guarantees issued by MIGA reduced the cost of capital and played a critical role in securing financing, according to Autopistas del Nordeste, which allowed the company to extend the tenure of the pay-back period.

During 2007 (fiscal year), MIGA issued \$494 million in guarantees for 12 infrastructure projects, accounting for 41% of the total gross outstanding portfolio. That share has increased considerably compared with the late 1990s, when it stood at 19%. South-South investments now feature prominently in its infrastructure portfolio,^b with special attention to infrastructure projects in Africa as well as in low-income countries. Since 1996, MIGA has issued \$536 million in guarantees for 16 telecommunications projects in sub-Saharan Africa and an additional \$443 million in guarantees for 11 projects involving transportation, power and sanitation. Infrastructure accounts for about 42% of all the guarantees issued for sub-Saharan Africa from 1990 to 2007. Low-income countries accounted for 21% of its gross exposure in infrastructure in 2007, a share that has been increasing steadily over the past four years.

MIGA's support for infrastructure investment draws on the agency's experience in markets considered to be higher risk, as well as its ability to offset risks encountered at the sub-sovereign level. As a multilateral agency and member of the World Bank Group, it may contribute to deterring harmful government actions and to resolving disputes to prevent claims situations from escalating, while keeping investments on track. If a dispute cannot be resolved, MIGA ensures that valid claims are paid promptly.

MIGA's new policies on social and environmental sustainability and disclosure, which took effect for all new project applications from 1 October 2007, are aimed at strengthening the standards that the agency already applies to projects it supports. These policies, which also apply to infrastructure projects, address the following: social and environmental assessment and management; labour and working conditions; pollution prevention and abatement; community, health, safety and security; land acquisition and involuntary resettlement; biodiversity conservation and sustainable natural resources management; indigenous peoples; and cultural heritage.

Source: UNCTAD, based on information provided by MIGA (www.miga.org).

^a New investments include greenfield projects, as well as the expansion, modernization or financial restructuring of existing projects and acquisitions that involve the privatization of SOEs. Eligible forms of investment include equity, shareholder loans and shareholder loan guaranties, provided that loans have a minimum maturity of three years. Some non-equity forms of investment, such as technical assistance, management contracts, leases, franchises and licensing agreements, may also be eligible under certain conditions.

^b In the fiscal year 2007, MIGA issued four guarantees (\$244.1 million in gross exposure) specifically for South-South investments in infrastructure.

b. Coverage for credit risk

In addition to PRI and PRGs – which can protect lenders against some types of perceived risks – partial credit guarantees (PCGs) are the most common form of credit risk cover. They cover losses in the event of debt-service default, regardless of the cause of default. Thus both non-commercial and commercial risks may be covered (Matsukawa and Habeck, 2007: 2). Credit enhancement can be used to support issuance of long-term currency bonds, and may reduce the costs of debt by securing higher credit ratings. This in turn may open up more sources of capital for infrastructure projects (Fay and Morrison, 2007).

c. Coverage for currency risk

Coverage for currency risk is particularly important for TNC involvement in infrastructure. As most of the revenue is generated locally, devaluations can have a significant impact on profitability of projects that are often financed in foreign currencies. This problem arises especially in countries that lack well-established and liquid long-term debt markets and currency hedge products (Matsukawa and Habeck, 2007: 7).

Sometimes, foreign-exchange risk is contractually mitigated by allowing tariff indexation of foreign currency cost components to foreign exchange rates, thus transferring the risk to the off-taker and ultimately the consumer. However, such mechanisms are controversial. They may divert the use of scarce foreign exchange from other, higher priority uses, increase the risk of contract renegotiation and be unfair to consumers. Governments may not be able to hedge their exposure, and by offering such guarantees they may crowd out local financing in countries with nascent debt markets.⁸¹ It is debatable whether State governments and municipalities should bear the risk of foreign-exchange movements, as they have no control over these fluctuations. Indeed, it may be argued that this risk should be treated as commercial risk and be borne by the private sector (Platz and Schröder, 2007: 26). In fact a growing number of insurers appear to be prepared to cover transactions financed in local currency.⁸²

Nonetheless, the international community could help indirectly to mitigate foreign-exchange risk. For example, the Association of Southeast Asian Nations+3 (ASEAN+3) has launched the Asian Bond Market Initiative to eliminate currency mismatches and to develop local capital markets in participating countries. Also, a guarantee facility for local currency debt is currently being developed under this Initiative (Winpenny, 2005). This is an area for which further support is needed. Using local capital sources to finance investments is the best way to avoid currency

risk. However, such funding is difficult to arrange in low-income countries with poorly developed local capital markets. An increase in and issuance of local currency instruments could play an important role in furthering the development of domestic credit and capital markets. A way forward may be to create mechanisms to optimize the input of local currency funding by developing high-quality structured finance bonds allied to a project or a group of projects.

The *GuarantCo* initiative was established by the Private Infrastructure Development Group to enhance local currency debt issuance by private, municipal and parastatal entities for infrastructure projects in low-income countries.⁸³ Its objective is to reduce or prevent the reliance of projects in poorer countries on hard currency financing by building capacity in their domestic markets to deliver viable and sustainable infrastructure financing solutions, and assist with poverty alleviation.

* * *

Despite the plethora of risk mitigation instruments available, it has been argued that current programmes are insufficiently tailored to the situation of low-income countries (Mistry and Olesen, 2003). For example, local-currency-denominated financing by development finance institutions typically requires a well-established currency swap market. However, where such markets exist, a need for interventions by the development finance institutions is less likely (Fay and Morrison, 2007). Various suggestions have been put forward to address the specific problems of LDCs. One study proposed the establishment of a small, special-purpose LDC infrastructure investment fund that would provide equity and debt financing as well as mobilize domestic currency resources for lending to infrastructure projects in LDCs (Mistry and Olesen, 2003). The Commonwealth Secretariat has made a similar suggestion, arguing for a dedicated and separate fund owned by, but legally distinct from, existing international financial institutions. Focusing specifically on LDCs and other small and vulnerable economies, this fund would offer loans in domestic currencies and quasi-equity investment capital and guarantees, while providing a specially simplified form of MIGA cover for political risk (Hughes and Brewster, 2002).

At the same time, risk-mitigation instruments are not a panacea. A key concern is that too much risk mitigation may lead to problems of moral hazard and encourage reckless risk-taking on the part of investors and lenders (WEF, 2006: 15). Moreover, while risk-mitigation tools can facilitate the mobilization of private debt and equity, they do not make poorly structured projects more viable (Matsukawa and Habeck, 2007: 6). This further underscores the importance of capacity-building efforts.

3. Capacity-building measures

A weak enabling environment in some developing countries – at national, provincial and local levels – represents a major obstacle to successfully engaging TNCs in infrastructure projects. They require support in areas such as creating better regulatory frameworks, preparing infrastructure projects for bidding and negotiation and ensuring greater transparency. As local governments are playing an increasingly influential role in ensuring the financial sustainability of utilities, capacity-building in municipalities is also needed to build expertise in areas such as finance, regulatory work and governance.

Preparing “bankable” infrastructure projects for private financing is also required to make better use of available ODA funds allocated to such investments, thus addressing the “infrastructure paradox” (discussed in subsection D.1). Multilateral and bilateral institutions are offering some assistance of this kind. For example, the Infrastructure Project Preparation Facility of the New Partnership for Africa’s Development (NEPAD) – managed by the African Development Bank – has received additional funding to help in the preparation of infrastructure

projects.⁸⁴ Table V.4 presents a list of capacity-building projects for infrastructure development in Africa. However, the effectiveness of these projects has not been well studied, and it is not known to what extent they have helped improve governments’ capacities. Moreover, interviews conducted for this report as well as other studies (see, for example, WEF, 2006), suggest that current efforts remain insufficient and are not always effectively deployed. Anecdotal evidence indicates that available ODA funds dedicated to capacity-building are not always effectively disbursed. For example, the Southern African Development Community (SADC) has reportedly had to return to the World Bank significant funds that should have been used for capacity-building. Similarly, while a substantial portion of the resources available at the African Capacity Building Foundation has been committed to capacity-building operations, the Foundation recognizes that it needs to improve the level and rate of disbursements to grant recipients.

Another area in need of capacity-building is related to the legal implications of contracts and projects as well as their monitoring. More attention should be given to ensuring that projects are implemented in accordance with the contracts

Table V.4. Capacity-building facilities for infrastructure projects in Africa, 2006

Facility	Hosting organization	Phases in project development					
		Enabling environment	Project definition	Project feasibility	Project structuring	Transaction support	Post-implementation support
ACP-EC Energy Facility	European Commission	√	√	√	√	√	√
African Capacity Building Foundation	African Capacity Building Foundation	√	√	√	√	√	√
African Catalytic Growth Fund	World Bank	√	√	√	√	√	√
African Water Facility	AfDB	√	√	√	√	√	√
DBSA Development Fund	DBSA	√	√	√	√	√	√
DEVCO	IFC and DFID	√	√	√	√	√	√
FEMIP Support Fund	European Commission and EIB	√	√	√	√	√	√
FEMIP Trust Fund	European Commission and EIB	√	√	√	√	√	√
Fund for African Private Sector Assistance	African Investment Bank	√	√	√	√	√	√
Global Environmental Facility	UNEP	√	√	√	√	√	√
Global Partnership for Output Based Aid	World Bank	√	√	√	√	√	√
Islamic Development Bank TAF	Islamic Development Bank	√	√	√	√	√	√
IFC Advisory Services	IFC	√	√	√	√	√	√
IFC Municipal Fund	IFC	√	√	√	√	√	√
NEPAD IPPF	AfDB	√	√	√	√	√	√
NEPAD PPFS	DBSA	√	√	√	√	√	√
Nigerian Technical Cooperation Fund	AfDB	√	√	√	√	√	√
PHRD Technical Assistance Grand Programme	World Bank	√	√	√	√	√	√
PIDG Technical Assistance Fund	PIDG	√	√	√	√	√	√
Public Private Infrastructure Advisory Facility	World Bank	√	√	√	√	√	√
SEFI Transaction Support Facility	UNEP and Base	√	√	√	√	√	√
Slum Upgrading Facility	UN Habitat	√	√	√	√	√	√
Water and Sanitation Program	World Bank	√	√	√	√	√	√

Source: UNCTAD based on ICA, 2006.

Note: ACP: Africa, Caribbean and Pacific group of States signatories of the Cotonou Agreement. AfDB: African Development Bank. DBSA: Development Bank of Southern Africa. DEVCO is a multi-donor facility established by IFC and DFID to support IFC’s advisory work on privatization in infrastructure. DFID is the United Kingdom’s Department for International Development. EC: European Commission. EIB: European Investment Bank. FEMIP: Facility for Euro-Mediterranean Investment and Partnership. IFC: International Finance Corporation. NEPAD IPPF: New Partnership for Africa’s Development Infrastructure Project Preparation Facility. NEPAD PPFS: NEPAD Preparation and Feasibility Studies Facility. PHRD: Policy and Human Resource Development. PIDG: Private Infrastructure Development Group. UNEP: United Nations Environment Programme. SEFI: UNEP Sustainable Energy Finance Initiative.

signed. In response to repeated calls from African governments, development partners and international organizations, the African Development Bank is in the process of establishing an African Legal Support Facility.⁸⁵ Another initiative in Africa is the decision by the Development Bank of Southern Africa to scale up its monitoring activities.

The international community needs to step up its capacity-building efforts as part of its assistance to low-income countries with a view to helping them develop their infrastructure and negotiate with private firms. Efforts should complement existing programmes and should include legal, financial and technical counsel that is tailored to low-income countries' requirements. For advisory services to become more effective, comparative, systematic and empirical data are needed to evaluate experience with infrastructure projects to date, especially in low-income countries. Advisory services should include not only how to encourage investment but also how infrastructure development can be made to fit into overall development plans and objectives. In this context, it may be important to develop an independent advisory service unit that is not a direct stakeholder in the actual transactions negotiated, in line with the kind of technical assistance that was once offered by the United Nations Centre on Transnational Corporations (see, for example, Sagafi-nejad and Dunning, 2008: 107).

4. Promoting regional infrastructure projects

Many developing countries see their small national economies and limited access to international markets as serious constraints on economic growth and on attracting FDI. Regional integration can be a possible solution. But since successful regional integration requires improved infrastructure across the member countries, it is important to encourage the development of cross-border infrastructure. In Latin America, for example, the Central American Interconnection System was set up to enable the creation of a wholesale electric power market and a regional grid (Fay and Morrison, 2007). In Africa, NEPAD is placing strong emphasis on cross-border projects in such areas as transportation and energy.

However, it is often difficult to implement regional projects. They require the highest political backing, and even with this there can be major hurdles to securing agreement among participating governments on project design and implementation. A major problem in Africa is the lack of harmonization of laws and regulations, which is creating substantial delays in project development and implementation.

Some projects have been in the planning stage for as long as 20 years (box V.14).

The need for international assistance in this area is increasingly recognized. For example, the number of regional integration projects in the pipeline of the World Bank Group has been growing, with more than \$2 billion worth of projects set to be financed over the next three years. This includes projects in transport, energy, water and telecommunications based on the NEPAD Short Term Action Plan priorities and the Africa Action Plan.⁸⁶ Financial support from the members of ICA (box V.10) to projects which connect two or more countries or which have an important regional impact more than doubled, to \$1.9 billion in 2007.⁸⁷ A recent European initiative that aims at improving regional infrastructure projects in Africa is the EU-Africa Infrastructure Fund (box V.15). The action plan for the period 2008–2012 emerging from the Tokyo International Conference on African Development (TICAD) gives special emphasis to regional transport and power infrastructure and to greater involvement of regional institutions (TICAD, 2008).

E. Conclusions

Policymakers need to give priority to the development of physical infrastructure. The needs are huge, and will require an optimal use of the private sector, including TNCs. This applies particularly to LDCs, where infrastructure improvements are critical for realization of the MDGs. At the same time, low-income countries are often too poorly equipped to attract TNCs into infrastructure and to extract benefits from TNC involvement. Thus, finding the appropriate mix of public and private sector involvement is not easy. Whatever approach is chosen, adequate institutions and enforcement mechanisms are essential to ensure efficient and equitable delivery of infrastructure services. For many developing countries, this is a daunting challenge that will require a concerted effort by all parties concerned – host and home countries, the international community and the companies involved.

Expectations should be realistic: TNCs will only be willing to invest in projects in which they can expect adequate returns, and the higher the perceived risks associated with a project, the greater will have to be the expected returns. A further complication is that demands for infrastructure investment in developed countries and in large emerging economies may hamper the ability of low-income countries to compete for TNC investment.

A first priority of host country governments in developing countries should be to strengthen the rule of law, including protection of property and

Box V.14. The Grand Inga Hydropower Project

While regional infrastructure projects can have huge development potential, they are also challenging to implement. The Grand Inga Hydropower project proposed for the Congo River in the Democratic Republic of the Congo is a good illustration. Based on the existing Inga 1 and Inga 2 dams and the proposed Inga 3 dam, the Grand Inga project constitutes the world's largest hydropower scheme. It is part of a greater vision to develop a trans-Africa power grid that could help spur the continent's economic and social development. The project's backers include Eskom (South Africa), NEPAD and SADC.

When completed, the Grand Inga could produce up to an estimated 39,000 MW of electricity – more than twice the power generated by the Three Gorges Dam in China and more than a third of the total electricity currently produced in Africa. While feasibility studies are yet to be completed, the project is already being projected as a way to “light Africa”. Mining companies are said to have a particularly strong interest in the Grand Inga, and electricity shortages in South Africa and neighbouring countries have underlined the importance of the project.^a A decision to proceed with Grand Inga will only be made once Inga 3 has been completed. Construction work for the Grand Inga is planned to start in 2014 and it is expected to begin operating between 2020 and 2025.

Mega projects such as the Grand Inga entail many risks. Its development has been hindered by poor maintenance and financial problems of the nearby Inga 1 and Inga 2 dams, as well as civil war and poor governance in the Democratic Republic of the Congo.^b Moreover, the project faces a number of challenges, such as corruption, the need to raise funds, environmental concerns (e.g. threat to the local environment as well as the Congo River basin) and social concerns (e.g. the displacement of local communities).

A particular challenge stems from the Grand Inga being a regional project involving multiple stakeholders. Regional projects require coordination, legal harmonization, coordinated administrative decisions, strong political will and, most importantly, sound governance by all participants. Poor governance and a lack of legal harmonization create significant delays in project development and implementation. A major effort is therefore needed to ensure smooth implementation of such projects by improving governance on a regional basis and by agreeing at the outset on how projects will be implemented, including the allocation of responsibilities to implementing agencies and the time frame for implementation.

Source: UNCTAD, based on International Rivers (www.internationalrivers.org).

^a According to Eskom, demand for electricity in South Africa alone is rising at the rate of 3% per annum, with no new generators to meet this growing demand.

^b The Inga 1 and 2 dams are undergoing a major rehabilitation with financial assistance from the World Bank, the European Investment Bank and the African Development Bank. The Inga 2 rehabilitation is also financed through a partial privatization scheme with the company, MagEnergy (Canada), and financial support from the Industrial Development Corporation of South Africa.

contractual rights, and the development of transparent and predictable sectoral laws and regulations. A high-quality general institutional and regulatory framework is crucial for fostering infrastructure investments, with or without TNC participation. It is the best way of reducing the risks associated with infrastructure projects, and of securing benefits from the investments. Within the overall governance framework, governments should identify how infrastructure projects may support broader development objectives and what potential role TNCs should play in their implementation.

Many developing countries would need to accord higher priority to infrastructure investments when allocating public funds. This requires considerable political will and commitment to long-term investments in the maintenance of existing and development of new infrastructure. Experience to date shows that TNC investment cannot substitute for public investment in infrastructure, but it can be an important complement (chapter IV). Increased government spending on infrastructure investment is therefore needed – with or without TNC involvement. Especially in electricity and water, government

investment is likely to help “crowd in” foreign investment.

For developing countries with large endowments of mineral resources, the current commodity price boom offers a window of opportunity. They need to ensure that windfall gains are managed and used in ways that promote development objectives. This includes infrastructure investments and the building of the necessary skills and capabilities to manage those investments. Some countries have linked the granting of mining concessions to commitments by foreign companies to develop infrastructure (chapter III). It is also important that the long-term sustainability of projects is factored in from the outset. To this end, governments should ensure they benefit from sufficient knowledge transfers from TNC partners to enable them to assume responsibility for the projects, if necessary, when their contract period expires.

Governments also need to develop the capabilities to assess the suitability of different forms of infrastructure provision – whether public, private or through some form of PPP – as well as to design and monitor specific projects. This will require training personnel in how to operate and maintain

Box V.15. The EU-Africa Infrastructure Trust Fund

In the context of the Gleneagles Declaration on Africa emerging from the G-8 Summit in 2005 and the EU Council's adoption of an EU Strategy for Africa, the EU and its African counterparts initiated a Partnership for African Infrastructure (the Partnership). To support its implementation, the EU-Africa Infrastructure Trust Fund (the Trust Fund) was launched in 2007.^a It encourages the financing of infrastructure programmes which facilitate interconnectivity and regional integration on the African continent. It aims to support synergies between European development agencies for the benefit of Africa, leveraging additional funds by blending grants and loans. To date, 11 donors have joined the Trust Fund, with financial commitments of €97 million.^b

A major project being supported by the Trust Fund with a €2.6 million subsidy is the East African Submarine Cable System (EASSy). It is expected to deliver high-speed Internet access to 20 Eastern and Central African countries. The EASSy cable will be owned and operated by a consortium of internationally licensed operators, either wholly private or with mixed public-private ownership. Some large operators will participate in the consortium directly in their own right, while others will receive co-financing from the European Investment Bank (EIB) and several other development finance institutions. These will channel their investments through the West Indian Ocean Cable Company Ltd (WIOCC), a special purpose vehicle (SPV) created to exist alongside the direct consortium members. The main purpose of the hybrid SPV model is to incorporate key development policy objectives into the WIOCC's shareholder agreement and other project documents. The grant from the Trust Fund will ensure efficient management of this complex project by funding the costs of a core management team during its set-up period.

The Trust Fund gives priority support to projects in the energy, water, transport and telecommunications industries. To be eligible, these projects must be sustainable and encompass a cross-border dimension and/or have a regional impact, be driven by public or private sector entities or with mixed public-private capital, contribute to poverty alleviation and economic development, and involve at least one country located in sub-Saharan Africa (and projects located in South Africa must involve another sub-Saharan country).

Support comes in the following forms: interest rate subsidies on medium and long-term loans; technical assistance and capacity building, including project preparation activities; subsidies for certain capital investments with an environmental or social component that are directly linked to the infrastructure project; and insurance premiums to cover country risks during the construction phase of large projects, for a two to three year period.

Source: UNCTAD based on information provided by the EIB.

^a See: www.eib.org/acp.

^b The donors include the European Commission and nine EU member States (Austria, Belgium, France, Germany, Greece, Italy, Luxembourg, the Netherlands, Spain and the United Kingdom).

infrastructure facilities (see, for example, Campos and Vines, 2008). To the extent that TNC involvement is desired, it would also be necessary to develop the expertise and capabilities to administer often complex projects. In countries that possess limited experience of projects involving TNCs, it would be appropriate to start on a small scale and to concentrate on projects that are less contentious. Furthermore, it may be easier to begin with contractual arrangements that have a relatively low level of TNC involvement, such as management and operations contracts.

Active promotion by IPAs can contribute to raising awareness of existing investment opportunities among potential investors. In this context, it is important for IPAs and other agencies involved to identify the main players and their respective responsibilities in the different infrastructure segments. The rise of TNCs from the South and the growing interest in infrastructure projects among sovereign wealth funds and private equity funds (chapter III) should also be considered when developing promotional strategies. At the same time, governments need to strengthen their negotiating skills with regard to investment contracts with TNCs to maximize the development gains from

any inflows of investment. They need to develop a clear understanding of the wide range of possibilities of TNC involvement in order to identify what is most appropriate for a given situation. For example, innovative, small-scale solutions could be explored for rural and other low-income areas. The form and content of the contracts have a major influence on the allocation of risks among the different parties. Governments should avoid offering overly generous subsidies or guarantees that may result in very large contingent liabilities. Similarly, TNCs should not seek too large subsidies or guarantees as this may backfire at a later stage and increase the likelihood of renegotiation and/or disputes.

With a view to fostering greater investment, many countries have complemented their national legislation and contractual arrangements with various international treaties in order to enhance investor protection. The proliferation of investment agreements has recently been paralleled by an increased incidence of investment disputes related to infrastructure. These developments have triggered an intense debate among policymakers on how to ensure that the use of IIAs facilitates much-needed investments without imposing too much of a

constraint on the legitimate needs of governments to adjust regulatory frameworks or renegotiate contracts when circumstances change. This consideration makes it important for governments to enhance their understanding of the implications of concluding IIAs.

Increased regional collaboration among developing countries should be encouraged in the area of infrastructure development. Closer regional integration can help create larger markets and thereby promote growth opportunities. But this requires supporting regional projects to enable an effective economic exchange among the members of the region. Various initiatives are already under way to speed up the development of such projects. However, it has often proved difficult to implement specific projects, partly due to the lack of harmonization of national laws. Regional support entities could play a key role in assisting national regulators to achieve such harmonization. For example, commonly agreed project definitions in law (that can be transposed to national laws) could help reduce the cost of developing contracts.

The actions of TNCs themselves obviously matter for securing benefits from foreign investment. In this context, all companies – private or State-owned, large or small, from the North or the South – should seek to abide by high standards of corporate behaviour. It is important to engage new corporate players in ongoing processes aimed at securing sustainable development gains from foreign investments. Financial institutions involved in infrastructure projects are becoming more aware of environmental and social issues. For example, the Equator Principles – a set of guidelines for determining, assessing and managing social and environmental risk in project financing – have been adopted by about 50 banks and other financial institutions, including 19 lead arrangers, which in 2006 were responsible for arranging close to half of all project loans. The Principles now have to be applied to virtually all infrastructure projects (Esty and Sesia, 2007). While more financial institutions should be encouraged to abide by them, further research is needed to examine their actual impact.

Regarding development assistance, development partners should honour their ODA commitments for infrastructure. They can also do more to help mitigate risks associated with infrastructure projects, especially in low-income countries. Bilateral and multilateral organizations need to become more willing to assume risks and to allocate a greater share of their activities to the needs of low-income countries. In addition, they should keep all options open. While a strong case can often be made for facilitating greater involvement of the private sector, including TNCs, other solutions should not be ruled out. In some projects, notably in water

and some electricity segments, there may be strong arguments for keeping the operation of basic services in public hands. But also in other industries, weak institutional capabilities may make private sector involvement too risky. In such situations, international support efforts focused on revitalizing existing public sector producers may be more effective (Estache and Fay, 2007). Thus it is important that development partners give sufficient attention to financing those infrastructure projects for which it may not be possible to mobilize private sector involvement.

But it is not only a matter of providing more money. Given the massive requirements for supporting infrastructure development, an urgent need is to address the “infrastructure paradox” (i.e. the non-utilization of available funds). International support for capacity-building in all relevant areas, especially in LDCs, is necessary to address this situation. Depending on the specific circumstances of each country, assistance may be provided for developing legal and regulatory frameworks, assessing different policy and contractual options, preparing project proposals, and monitoring and enforcing laws, regulations and contracts. Considering the nature of infrastructure projects, all levels of government – national, provincial and municipal – in many developing countries are in dire need of some form of assistance. While steps have been taken to meet these needs, current efforts remain vastly inadequate. In addition, even funds available for capacity-building are reportedly not always used. It would be worth exploring how the United Nations could play a more active role in this context, for example by helping developing-country governments to evaluate management contracts and review agreements.

Notes

- ¹ As privatization and various forms of PPPs raise many complex issues and their implementation can be demanding in regulatory and contractual terms, failure to build the necessary capacity can lead to skewed risk allocation, inadequate development gains and poor performance (Scott, 2007).
- ² In practice, however, as long as the regulator’s budget is controlled by the government, complete independence from the government is not possible to achieve. Therefore, it may be appropriate to finance the operating budget of an agency through levies on the regulated industry (Guasch, 2004). In England and Wales, for example, the water regulator is funded by a fee from the companies involved, and the independence of funding is enshrined in law.
- ³ They are capital-intensive and self-sufficient projects, with the customer relationship in effect being between the municipality and the contract operator.
- ⁴ The World Bank increased its emphasis on private sector involvement in infrastructure industries in the early 1990s, in light of the disappointing performance of State-owned utilities as well as rising government debts in many developing countries (World Bank, 1995).
- ⁵ A study by the Independent Evaluation Office of the IMF recently reconfirmed the need to reduce the volume of structural

- conditionality and to limit the use of conditionality to the core areas of IMF expertise (IEO, 2007).
- 6 This picture is confirmed by project data, which showed that Latin America and the Caribbean received close to two-thirds of all foreign investment commitments in developing and transition economies during the period 1996–2000 and about 30% of all such investment commitments in 2001–2006 (chapter III).
- 7 Another study concluded that electricity utilities are owned and operated by the State in 55%, of all developing countries covered in the World Bank's *PPI Database* (Kikeri and Kolo, 2005).
- 8 In developed countries, this was followed by British Telecom (United Kingdom), Teleglobe (Canada) and NTT (Japan).
- 9 For example, the Democratic People's Republic of Korea, which had previously prohibited FDI, in January 2008 allowed Orascom Telecom (Egypt) to introduce third generation mobile services in the country. A joint venture company, 75% owned by Orascom and 25% by the Korea Post and Telecommunications Corporation) will provide the service. Orascom plans to invest up to \$400 million on the project over the next three years ("Orascom Telecom Receives The First Mobile License in the Democratic People's Republic of Korea." Press Release (www.orascomtelecom.com), 30 January 2008).
- 10 Comoros, Costa Rica, Djibouti, Ethiopia, the Federated States of Micronesia, the Libyan Arab Jamahiriya, Myanmar, Nauru, Palau and Tuvalu (Minges, 2008).
- 11 "A Proclamation to provide for the amendment of telecommunications proclamation", Proclamation No. 281/2002, 2 July 2002.
- 12 The State-owned Instituto Costarricense de Electricidad (ICE) has had a monopoly on telecommunications services.
- 13 See "Lawmakers give final OK", 15 May 2008; available at: <http://www.sellingr.com/main-content/lawmakers-give-final-ok-3.html>.
- 14 See <http://www.networkworld.com/news/2007/020707-verizon-enters-indias-long-distance.html>.
- 15 See "Morales nationalizes Bolivian telecom, foreign gas companies", *Mercurynews.com*, 1 May 2008.
- 16 Some countries, such as the Netherlands and Uganda, have passed laws banning privatization of public water supply (Hall, Lobina and de la Motte, 2004).
- 17 There is full privatization in Chile (TNCs and local firms) and China (local firms). In India, Jamshedpur's water assets and operations have always been developed, owned and operated by Tata Steel. In developing countries, except for Chile, all contracts where the assets are held by the private sector are with local companies (Owen, 2008).
- 18 This estimation is based on data provided to UNCTAD by the *Envisager Water and Wastewater Database*, which covers a total of 343 water-specific private sector contracts serving at least 10,000 people in developing economies and awarded between 1987 and 2008.
- 19 The countries covered were Canada, China, France, Germany, India, Japan, the Netherlands, the Russian Federation, the United Arab Emirates, the United Kingdom and the United States.
- 20 New legislation approved by the Russian Duma in April 2008 requires foreign investors seeking to acquire more than 50% of the shares of Russian companies operating in strategic sectors to obtain government approval (see Foreign investment in Russian strategic industries: Duma approves Bill, in: *Policy Matters*, April 2008; available at: https://www.usrbc.org/pics/File/Member%20Contributions/PolicyMatters_April2008.pdf).
- 21 In many cases, when IPAs do not actively promote FDI in infrastructure, it is because FDI promotion for this sector is sometimes handled by another government agency (47%). In general, however, reasons also seem to be IPA-specific (e.g. lack of capacity, different focus), or country-specific (e.g. only public investment permitted or via public concessions).
- 22 Infrastructure projects are often governed by an overarching concessionary agreement. However, for a large project, a cluster of over 40 contracts may formalize arrangements among the numerous actors involved (Esty, 2004).
- 23 See "Best practices for contract renegotiation", *IT Business Edge Negotiation*, 3 September 2005, (www.itbusinessedge.com/item/?ci=17180).
- 24 The small number of firms and the market dominance of lawyers from these two economies may be tied to the dominance of investment bankers from these jurisdictions in financing infrastructure projects globally (Flood, 2002).
- 25 Also, issues related to legal house tenure and gender discrimination can be very important considerations with regard to access to water, but are not strictly related to water management.
- 26 Tariffs appear to have been better designed in the electricity sector (Fay and Morrison, 2007).
- 27 In this context, recent arbitrations have underlined the importance of so-called domestic "conformity clauses", requiring that investments be made in accordance with the law of the host country. Such clauses gain special significance when investments violate domestic law. Depending upon the circumstances, claims by an investor concerning such investments will not be allowed by international tribunals. See, for example, *Fraport AG Frankfurt Airport Services Worldwide v. Republic of the Philippines*, ICSID Case No. ARB/03/25 (Germany/Philippines BIT), Award of 16 August 2007; *Inceysa Vallisoletana S.L. v. Republic of El Salvador*, ICSID Case No. ARB/03/26 (El Salvador/Spain BIT), Award of 2 August 2006; *Desert Line Projects LLC v. Republic of Yemen*, ICSID Case No. ARB/05/17 (Oman/Yemen BIT), Award of 6 February 2008.
- 28 On the other hand, such a strategy might also be based on protectionism, in which case arbitrators would decide whether it is a valid defence (UNCTAD, forthcoming c).
- 29 The seminal decision in this respect is the "Neer" case (*Neer v. Mexico*, Opinion, United States-Mexico General Claims Commission, 15 October 1926, A.J.I.L. 555, 1927).
- 30 A regulatory taking can be defined as a government measure that, while leaving the property rights of an investor formally untouched, has the effect of depriving the investor of all or a substantial part of the economic value of the investment.
- 31 This number does not include cases that are exclusively based on investment contracts (State contracts), and cases where a party has so far only signalled its intention to submit a claim to arbitration, but has not yet commenced the arbitration (notice of intent). Since the International Centre for Settlement of Investment Disputes (ICSID) is the only arbitration facility to maintain a public registry of claims, the number of actual treaty-based cases is likely to have been still higher. See UNCTAD, "Latest developments in investor-State dispute settlement", *IIA Monitor* No. 1, 2008, UNCTAD/WEB/ITE/IIA/2008/3.
- 32 Of the 95 known disputes related to infrastructure 70 were filed with ICSID (or the ICSID Additional Facility), 20 under the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL), 3 with the Stockholm Chamber of Commerce and the remaining 2 through ad-hoc arbitration.
- 33 See also *Azurix v. Argentine Republic*, ICSID Case No. ARB/01/12 (Argentina/United States BIT), Award of 14 July 2006; and *Aguas del Tunari S.A. v. Republic of Bolivia*, ICSID Case No. ARB/02/3 (Bolivia/Netherlands BIT), registered on 25 February 2002; and several disputes against Argentina following emergency laws.
- 34 See *Consortium Groupement L.E.S.I.- DIPENTA v. Algeria*, ICSID Case No. ARB/03/08 (Algeria/Italy BIT), Award of 10 January 2005, *L.E.S.I. S.p.A. et ASTALDI S.p.A. v. Algeria*, ICSID Case No. ARB/05/3 (Algeria/Italy BIT), Decision of 12 July 2006.
- 35 See, for example, *Nagel v. Czech Republic*, SCC Case 49/2002 (Czech Republic/United Kingdom BIT), Award of 9 September 2003.
- 36 See, for example, *Telekom Malaysia Berhad v. Republic of Ghana*, Case No. HA/RK 2004, 667 and 788 (Ghana/Malaysia BIT), Decision of 18 October 2004.

- ³⁷ See, for example, *France Telecom v. Lebanon* (France/Lebanon BIT), Award of 22 February 2005.
- ³⁸ See, for example, *Telefónica S.A. v. Argentine Republic*, ICSID Case No. ARB/03/20 (Argentina/Spain BIT), Registered on 21 July 2003; *E.T.I. Euro Telecom International N.V. v. Republic of Bolivia*, ICSID Case No. ARB/07/28 (Bolivia/Netherlands BIT), Registered on 31 October 2007.
- ³⁹ Two known disputes also arose with regard to the setting up of a motor vehicle registry.
- ⁴⁰ See, for example, *Jan de Nul N.V. and Dredging International N.V. v. Arab Republic of Egypt*, ICSID Case No. ARB/04/13 (Belgium-Luxembourg/Egypt BIT), Decision on Jurisdiction of 16 June 2006.
- ⁴¹ See, for example, *Bayindir Insaat Turizm Ticaret Ve Sanayi A.S. v. Islamic Republic of Pakistan*, ICSID Case No. ARB/03/29 (Pakistan/Turkey BIT), Decision on Jurisdiction of 14 November 2005.
- ⁴² See, for example, *Bayindir Insaat Turizm Ticaret (op. cit.) and Walter Bau AG v. Kingdom of Thailand*, UNCITRAL (Germany/Thailand BIT), 2007.
- ⁴³ See, for example, *Lanco International Inc. v. Argentine Republic*, ICSID Case No. ARB/97/6 (Argentina/United States BIT) Award on Jurisdiction of 8 December 1998.
- ⁴⁴ See, for example, *Walter Bau AG v. Kingdom of Thailand*, UNCITRAL (Germany/Thailand BIT), 2007.
- ⁴⁵ See, for example, *Consortium R.F.C.C. v. Kingdom of Morocco*, ICSID Case No. ARB/00/6 (Italy/Morocco BIT), Final Award of 22 December 2003.
- ⁴⁶ See, for example, *ADC Affiliate Limited and ADC & ADMC Management Limited v. Republic of Hungary*, ICSID Case No. ARB/03/16 (Cyprus/Hungary BIT), Award of 2 October 2006.
- ⁴⁷ See, for example, *PSEG Global et al. v. Republic of Turkey*, ICSID Case No. ARB/02/5 (Turkey/United States BIT), Award of 19 January 2007.
- ⁴⁸ See, for example, *Impregilo S.p.A. v. Islamic Republic of Pakistan*, ICSID Case No. ARB/03/3 (Italy/Pakistan BIT), Decision on Jurisdiction of 22 April 2005.
- ⁴⁹ See, for example, *Noble Energy, Inc. and Machalpower CIA. LTDA v. Republic of Ecuador and Consejo Nacional de Electricidad*, ICSID Case No. ARB/05/12 (Ecuador/United States BIT), Decision on Jurisdiction of 5 March 2008.
- ⁵⁰ See, for example, several cases related to Argentina.
- ⁵¹ See, for example, *M.C.I. Power Group L.C. and New Turbine, Inc. v. Republic of Ecuador*, ICSID Case No. ARB/03/6 (Ecuador/United States BIT), Award of 31 July 2007.
- ⁵² See, for example, *Hrvatska Elektroprivreda d.d. v. Republic of Slovenia*, ICSID Case No. ARB/05/24 (Energy Charter Treaty), Registered on 28 December 2005.
- ⁵³ See, for example, *Société Générale v. Dominican Republic*, UNCITRAL (Dominican Republic/France BIT), 2007.
- ⁵⁴ See, for example, *Barmek Holding A.S. v. Republic of Azerbaijan*, ICSID Case No. ARB/06/16 (Energy Charter Treaty), Registered on 16 October 2006; *Empresa Eléctrica del Ecuador, Inc. (EMELEC) v. Republic of Ecuador*, ICSID Case No. ARB/05/9 (Ecuador/United States BIT), Registered on 26 May 2005; *Libananco Holdings Co. Limited v. Republic of Turkey*, ICSID Case No. ARB/06/8 (Energy Charter Treaty), Registered on 19 April 2006.
- ⁵⁵ A large number of arbitration awards can be found in the UNCTAD database at: www.unctad.org/iia; other main sources on the Internet include: <http://ita.law.uvic.ca>, www.investmentclaims.com (subscription required), and <http://icsid.worldbank.org/ICSID/Index.jsp>.
- ⁵⁶ These figures do not include claims for, and awards of, interest and legal costs.
- ⁵⁷ See also Dolzer and Schreuer, 2008.
- ⁵⁸ For example, in *Compañía de Aguas del Aconquija S.A. and Vivendi Universal v. Argentine Republic*, the tribunal concluded that a unilateral lowering of tariffs by the regulator and a prohibition to pursue lawsuits and enforce judgements rendered against debtors constituted an illegitimate campaign against the foreign investor amounting to a violation of the FET standard, ICSID Case No. ARB/97/3, Award of 20 August 2007 at para. 7.4.39.
- ⁵⁹ See *PSEG Global et al. v. Republic of Turkey*, ICSID Case No. ARB/02/5 (Turkey/United States BIT), Award of 19 January 2007 at para. 252-253.
- ⁶⁰ *Parkerings-Compagniet AS v. Republic of Lithuania*, ICSID Case No. ARB/05/8 (Lithuania/Norway BIT), Award of 11 September 2007.
- ⁶¹ See, for example, *Parkerings-Compagniet AS v. Republic of Lithuania*, (*op. cit.*) at para. 331: “The expectation is legitimate if the investor received an explicit promise or guaranty from the host-State, or if implicitly, the host-State made assurances or representation that the investor took into account in making the investment. Finally, in the situation where the host-State made no assurance or representation, the circumstances surrounding the conclusion of the agreement are decisive to determine if the expectation of the investor was legitimate. In order to determine the legitimate expectation of an investor, it is also necessary to analyse the conduct of the State at the time of the investment.” See also *M.C.I. Power Group L.C. and New Turbine, Inc. v. Ecuador*, ICSID Case No. ARB/03/6 (Ecuador/United States BIT), Award of 31 July 2007 at para. 278.
- ⁶² For a discussion of the cases, see Muchlinski, 2006 and 2007.
- ⁶³ *ADC (op. cit.)*, para. 476.
- ⁶⁴ *Compañía de Aguas del Aconquija S.A. and Vivendi Universal (op. cit.)*.
- ⁶⁵ *Vivendi (op. cit.)*, at paras. 7.5.22 and 7.5.25. See also *Consortium RFCC (op. cit.)*, para. 165; *Azurix Corp (op. cit.)*, para. 315; *Parkerings-Compagniet AS (op. cit.)*, paras. 443–456.
- ⁶⁶ *LESI-DIPENTA (op. cit.)*, para. 25(ii) [English translation of the original award in French]. The case dealt with difficulties in execution and finally the cancellation of a contract that the claimant was awarded for the construction of a dam to provide drinking water to the city of Algiers.
- ⁶⁷ *El Paso Energy International Company v. Argentine Republic*, ICSID Case No. ARB/03/15 (Argentina/United States BIT), Decision on Jurisdiction, 27 April 2006, para. 81. The dispute arose in the context of the Argentinean financial crisis. The United States-based claimant argued that measures taken by Argentina to counter the crisis had impaired its investments in four Argentine companies involved in the electricity and hydrocarbons industries.
- ⁶⁸ *Azurix Corp (op. cit.)*, para. 384. See also *CMS Gas Transmission Company v. The Argentine Republic*, ICSID Case No. ARB/01/8 (Argentina/United States BIT), Decision on Annulment of 25 September 2007.
- ⁶⁹ *El Paso (op. cit.)*, para. 84: “[T]here is no doubt that if the State interferes with contractual rights by a unilateral act, whether these rights stem from a contract entered into by a foreign investor with a private party, a State autonomous entity or the State itself, in such a way that the State’s action can be analysed as a violation of the standards of protection embodied in a BIT, the treaty-based arbitration tribunal has jurisdiction over [...] the claims arising from a violation of [the foreign investor’s] contractual rights.”
- ⁷⁰ See OECD, 2006b: 9–14.
- ⁷¹ Another example would be if the investor has obtained an investment contract by means of false representation (see also Muchlinski, 2007).
- ⁷² A few countries, in particular Canada and the United States, have already done so (UNCTAD, 2007k).
- ⁷³ In relative terms, growth in commitments was the highest in water supply and sanitation (198%) and the lowest in energy (30%).
- ⁷⁴ China is the biggest external provider of finance for infrastructure investment in Africa. Its commitments in 2006, estimated at

around \$15 billion, far exceeded the combined commitments by OECD countries (United Kingdom, DFID, 2007).

⁷⁵ According to this study, "total capital... at the IFC is now close to total commitments of loans, equity and debt securities... and the institution's capital adequacy ratio has risen from 45% in 2002/3 to 57% for 2006/7. The FMO's [The Netherlands Development Finance Company's] capital adequacy has increased from 38.4% in 2000 to 50.5% in 2005" (Te Velde and Warner, 2007: 2).

⁷⁶ In the investment insurance area (synonym for political risk insurance), members of the Berne Union – the leading association for export credit and investment insurance – had provided coverage amounting to \$54.5 billion in 2007. At the end of that year, Berne Union members had an investment insurance exposure of \$143.1 billion on their books. The share of private market insurers in these two figures was around 40%.

⁷⁷ See www.iaigc.net.

⁷⁸ The ICIEC is a multilateral agency, based in Jeddah, with 35 member countries. Part of the Islamic Development Bank Group, it has become very active in investment insurance in recent years. For example, ICIEC cooperated with MIGA in covering the Doraleh Container Terminal project in Djibouti (see also box V.13), covering \$50 million of the total coverage of \$427 million.

⁷⁹ Membership in ATI is open to all African States that are or could become members of the African Union (including Burundi, the Democratic Republic of the Congo, Djibouti, Eritrea, Kenya, Madagascar, Malawi, Rwanda, Uganda, the United Republic of Tanzania and Zambia) as well as international development finance institutions and regional economic organizations (www.ati-aca.org). Private corporations with the competence, interest and commitment to support trade and investments in Africa may also join ATI as corporate members. Current corporate members

include COMESA, Atradius Group, the Eastern and Southern African Trade and Development Bank (PTA Bank) and PTA Reinsurance Company.

⁸⁰ Its FDI insurance covers the investor or financier against loss of equity in a project due to confiscation or broad political *force majeure*. Risks covered include, *inter alia*, inability to transfer dividends overseas in hard currency, confiscation, expropriation, nationalization, breach of concession rights, forced abandonment and political violence.

⁸¹ Despite these drawbacks, an exchange-rate guarantee for a specific project may be preferable to government financing of a project because the exchange-rate guarantee exposes the government to a single risk rather than to the full range of project risks.

⁸² Communication by the Berne Union.

⁸³ See www.pidg.org.

⁸⁴ The additional funding, received in 2008, was provided by the United Kingdom (\$12 million), Norway (\$9 million), and the African Development Bank (\$10 million).

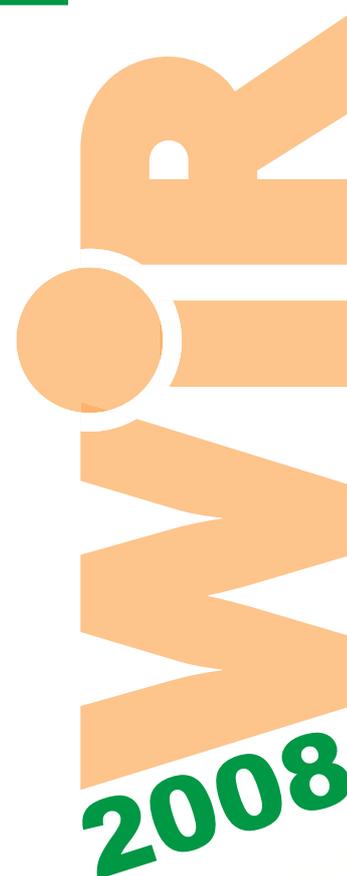
⁸⁵ When established, this facility will, among other things, provide legal advice and help develop legal competencies in complex commercial transactions, project finance and investments agreements. It has been proposed that funding would come from contributions from the Bank, from member and non-member countries of the Bank, and other international organizations.

⁸⁶ See web.worldbank.org/wbsite/external/countries/africaext/extregini/extafreginicoo/0,,contentmdk:20625610~menuup:1631231~pagepk:64168445~pipk:64168309~thesitepk:1587585,0.html.

⁸⁷ Communication from ICA.

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ANNEXES



Annex table A.I.1. Number of greenfield FDI projects, by source/destination, 2003–2008^a

Partner region/economy	World as destination						World as source					
	2003	2004	2005	2006	2007	2008 ^a	2003	2004	2005	2006	2007	2008 ^a
	Source						Destination					
World	9 469	10 254	10 632	12 441	11 703	3 107	9 469	10 254	10 632	12 441	11 703	3 107
Developed countries	7 881	8 766	9 080	10 402	9 891	2 533	4 162	4 688	5 150	6 198	6 037	1 398
Europe	4 040	4 642	4 959	5 903	6 009	1 503	2 956	3 524	4 092	4 937	4 711	1 080
European Union	3 794	4 296	4 621	5 473	5 592	1 370	2 866	3 424	3 995	4 806	4 542	1 037
Austria	152	210	230	294	245	43	81	100	111	88	103	26
Belgium	78	95	133	146	189	53	66	115	163	126	206	40
Bulgaria	10	15	6	9	7	2	98	109	142	298	151	30
Cyprus	5	9	5	21	7	2	8	6	6	15	7	1
Czech Republic	20	17	22	39	28	7	145	148	152	181	149	35
Denmark	105	134	155	148	126	40	74	92	81	71	67	11
Estonia	19	7	25	48	39	4	30	43	65	60	32	8
Finland	105	105	196	201	181	39	30	32	35	42	37	6
France	495	569	650	689	856	218	161	233	493	590	561	132
Germany	865	909	1 038	1 293	1 243	289	276	276	275	362	438	85
Greece	71	44	39	51	57	15	42	59	28	29	37	5
Hungary	26	26	12	21	29	3	218	224	212	256	219	50
Ireland	49	45	67	88	83	20	136	130	196	146	114	31
Italy	277	354	308	266	295	79	114	131	142	149	166	28
Latvia	18	10	11	25	14	-	44	30	87	121	33	10
Lithuania	16	11	54	69	13	2	42	23	81	61	44	8
Luxembourg	15	26	27	29	54	12	12	14	4	12	26	5
Malta	3	1	3	3	-	1	3	3	8	13	9	1
Netherlands	241	301	237	331	333	82	105	105	109	142	127	31
Poland	14	25	31	41	39	10	154	240	275	350	333	93
Portugal	51	40	21	25	36	26	62	83	30	55	77	20
Romania	5	9	13	13	13	2	116	182	264	385	366	71
Slovakia	2	5	-	3	2	1	66	89	119	118	100	18
Slovenia	46	28	44	50	27	3	23	22	19	26	23	1
Spain	172	264	154	217	438	105	224	267	156	283	390	110
Sweden	216	258	279	292	287	64	109	139	106	125	86	21
United Kingdom	718	779	861	1 061	951	248	427	529	636	702	641	160
Other developed Europe	246	346	338	430	417	133	90	100	97	131	169	43
Iceland	6	14	15	29	23	5	5	1	1	5	1	1
Liechtenstein	7	2	4	3	3	1	-	-	1	-	2	-
Norway	62	82	95	101	69	21	27	25	21	20	23	8
Switzerland	171	248	224	297	322	106	58	74	74	106	143	34
North America	2 729	2 883	3 113	3 330	2 939	752	838	827	783	915	953	223
Canada	325	300	419	252	246	64	244	224	209	178	153	41
United States	2 404	2 583	2 694	3 078	2 693	688	594	603	574	737	800	182
Other developed countries	1 112	1 241	1 008	1 169	943	278	368	337	275	346	373	95
Australia	144	113	140	156	142	37	182	139	111	130	155	44
Bermuda	23	17	22	54	32	11	1	-	-	2	4	-
Greenland	2	-	1	-	1	-	2	1	2	-	-	-
Israel	39	57	60	113	63	25	17	17	24	36	21	7
Japan	886	1 040	772	820	686	200	134	159	121	151	168	34
New Zealand	18	14	13	26	19	5	32	21	17	27	25	10
Developing economies	1 430	1 319	1 360	1 823	1 622	529	4 508	4 858	4 536	5 442	4 922	1 507
Africa	66	50	72	80	60	27	333	279	474	473	380	139
North Africa	17	8	25	30	18	10	131	111	214	211	196	62
Algeria	4	-	-	1	2	-	21	19	45	52	34	14
Egypt	9	6	13	20	10	8	40	34	47	56	54	13
Libyan Arab Jamahiriya	2	-	2	-	1	-	4	7	16	11	22	8
Morocco	1	-	4	5	3	-	39	37	62	49	56	15
Sudan	-	-	-	-	-	-	10	5	10	16	2	2
Tunisia	1	2	6	4	2	2	17	9	34	27	28	10
Other Africa	49	42	47	50	42	17	202	168	260	262	184	77
Angola	-	2	-	-	2	-	15	16	18	15	10	5
Benin	-	-	-	-	-	-	1	-	-	-	-	-
Botswana	-	-	-	1	-	-	5	5	6	4	4	1
Burkina Faso	-	-	-	-	-	-	1	1	3	-	1	1
Cameroon	-	-	1	-	-	-	2	1	1	1	1	-
Cape Verde	-	-	-	-	-	-	-	-	-	-	1	-
Congo	-	-	-	-	-	-	1	1	-	-	1	-
Congo, Democratic Republic of	-	-	-	-	-	1	3	2	10	8	5	7
Côte d'Ivoire	-	1	3	1	-	1	1	-	2	2	2	2
Djibouti	-	-	-	-	-	-	-	-	1	3	1	1

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Annex table A.I.1. Number of greenfield FDI projects, by source/destination, 2003–2008^a (continued)

Partner region/economy	World as destination						World as source					
	2003	2004	2005	2006	2007	2008 ^a	2003	2004	2005	2006	2007	2008 ^a
	Source						Destination					
Equatorial Guinea	-	-	-	-	-	-	2	-	-	3	-	-
Eritrea	-	-	-	-	-	1	1	1	4	1	-	-
Ethiopia	-	-	-	-	-	-	2	1	1	4	9	2
Gabon	-	-	-	-	-	-	-	-	4	3	3	1
Gambia	-	-	-	-	-	-	-	-	1	2	1	1
Ghana	-	1	-	-	-	-	16	5	16	11	4	3
Guinea	-	-	-	-	-	-	2	3	3	3	-	-
Guinea-Bissau	-	-	-	-	-	-	1	-	-	-	1	-
Kenya	3	1	4	3	2	-	13	15	14	14	8	5
Lesotho	-	-	-	-	-	-	1	-	-	-	1	1
Liberia	-	-	-	-	-	-	-	-	2	-	-	-
Madagascar	-	-	-	2	-	-	4	3	4	3	3	1
Mali	-	-	-	-	-	-	-	-	3	3	-	-
Mauritania	-	-	-	-	-	-	2	1	3	4	2	1
Mauritius	1	-	1	-	2	-	4	7	5	2	4	4
Mozambique	-	-	-	-	-	-	6	4	-	5	5	4
Namibia	-	-	-	1	-	-	3	5	7	6	5	1
Niger	-	-	-	-	-	-	1	-	-	1	-	1
Nigeria	1	2	3	2	6	6	27	20	39	26	19	5
Reunion	-	-	-	-	-	-	-	-	-	1	-	-
Rwanda	-	-	-	-	-	-	-	-	2	-	8	2
São Tomé and Príncipe	-	-	-	-	-	-	-	-	1	-	1	-
Senegal	-	-	-	-	-	-	3	3	3	5	4	1
Seychelles	-	-	-	-	-	-	-	2	3	-	3	-
Sierra Leone	-	-	-	-	-	-	4	1	2	2	-	-
Somalia	-	-	-	-	-	-	-	1	-	1	-	-
South Africa	36	34	33	40	26	5	61	52	64	85	56	21
Swaziland	-	-	-	-	-	-	-	2	2	-	-	-
Togo	-	-	1	-	3	1	-	-	-	1	1	-
Uganda	-	-	1	-	1	2	5	5	8	17	7	3
United Republic of Tanzania	-	-	-	-	-	-	7	6	11	7	6	-
Zambia	-	-	-	-	-	-	5	4	15	15	5	2
Zimbabwe	8	1	-	-	-	-	3	1	2	4	2	1
Latin America and the Caribbean	131	159	81	126	216	40	799	804	564	582	780	204
South America	94	110	62	87	137	25	533	559	367	329	437	107
Argentina	15	19	2	16	23	3	64	75	42	47	109	22
Bolivia	-	-	-	-	-	-	9	14	2	7	4	-
Brazil	40	41	34	39	64	12	289	259	171	149	152	54
Chile	20	17	11	13	25	7	61	56	38	38	29	2
Colombia	4	15	-	2	8	2	43	47	46	33	66	13
Ecuador	1	-	1	1	2	-	9	21	4	4	8	2
Guyana	1	-	-	-	-	-	-	1	3	3	1	1
Paraguay	-	-	-	-	-	-	3	2	-	-	2	-
Peru	3	14	3	2	6	-	30	31	29	24	36	6
Suriname	-	-	-	-	-	-	2	-	-	-	-	-
Uruguay	3	1	-	-	1	1	5	10	7	7	20	1
Venezuela, Bolivarian Rep. of	7	3	11	14	8	-	18	43	25	17	10	6
Central America	30	37	12	21	59	10	214	194	165	218	306	91
Costa Rica	-	1	-	-	7	-	13	7	11	20	40	4
El Salvador	1	1	-	-	2	-	4	7	4	5	7	2
Guatemala	-	-	1	-	2	-	5	3	1	2	13	3
Honduras	-	4	1	2	2	-	7	6	2	2	11	1
Mexico	29	29	10	19	42	8	170	159	138	181	209	79
Nicaragua	-	-	-	-	1	-	8	1	1	3	6	1
Panama	-	2	-	-	3	2	7	11	8	5	20	1
Caribbean	7	12	7	18	20	5	52	51	32	35	37	6
Aruba	-	-	-	-	-	-	1	-	1	-	-	-
Bahamas	2	2	1	1	2	1	3	1	2	-	1	-
Barbados	-	-	-	-	1	-	-	1	-	-	-	-
Cayman Islands	1	1	3	12	7	2	-	-	1	2	-	1
Cuba	1	-	-	-	-	-	6	5	5	1	2	-
Dominican Republic	1	1	1	-	3	-	11	9	7	9	8	1
Guadeloupe	-	-	-	-	-	-	1	-	-	1	-	1
Haiti	-	-	-	-	-	-	-	-	1	2	-	-
Jamaica	-	4	-	4	1	2	5	4	2	2	2	-
Martinique	-	-	-	-	-	-	1	-	-	1	2	-

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Annex table A.I.1. Number of greenfield FDI projects, by source/destination, 2003–2008^a (continued)

Partner region/economy	World as destination						World as source					
	2003	2004	2005	2006	2007	2008 ^a	2003	2004	2005	2006	2007	2008 ^a
	Source						Destination					
Puerto Rico	1	4	-	-	4	-	20	29	7	12	17	3
Saint Lucia	-	-	1	-	-	-	1	-	-	-	1	-
Trinidad and Tobago	-	-	1	1	2	-	3	2	6	5	4	-
Asia and Oceania	1 233	1 110	1 207	1 617	1 346	462	3 376	3 775	3 498	4 387	3 762	1 164
Asia	1 233	1 110	1 207	1 615	1 346	461	3 369	3 768	3 496	4 382	3 759	1 161
West Asia	206	171	243	443	259	221	394	388	509	731	551	395
Bahrain	2	5	2	12	13	7	24	17	28	52	31	9
Iraq	-	-	1	-	1	-	32	5	8	4	2	2
Jordan	6	2	6	12	6	2	15	11	23	32	19	7
Kuwait	14	15	16	45	26	12	7	21	12	24	8	7
Lebanon	4	8	12	16	5	2	20	23	11	18	9	-
Oman	1	1	-	-	4	1	11	14	14	41	14	5
Palestinian territory	-	-	-	1	-	-	-	-	-	5	1	-
Qatar	3	12	13	23	11	5	22	27	24	48	28	16
Saudi Arabia	14	20	20	60	42	9	32	37	57	103	49	20
Syrian Arab Republic	1	-	-	-	-	2	8	6	25	17	16	4
Turkey	109	66	66	52	28	19	71	67	73	90	93	26
United Arab Emirates	49	41	107	222	123	57	146	156	231	294	277	86
Yemen	3	1	-	-	-	4	6	4	3	3	4	1
South, East and South-East Asia	1 027	939	964	1 172	1 087	620	2 975	3 380	2 987	3 651	3 208	1 848
Afghanistan	-	-	-	-	1	-	6	4	5	3	1	1
Bangladesh	1	-	4	2	-	1	17	7	7	12	5	2
Bhutan	-	-	-	-	-	-	-	-	-	2	-	-
Brunei Darussalam	-	-	2	-	-	-	2	2	4	-	6	2
Cambodia	-	-	-	-	-	-	5	7	6	5	8	9
China	108	102	140	136	184	47	1 320	1 546	1 256	1 415	1 176	359
Hong Kong, China	128	105	97	115	119	43	90	128	126	157	144	32
India	177	206	224	315	213	70	453	699	594	1 026	682	217
Indonesia	9	9	9	5	9	2	62	61	78	96	78	22
Iran, Islamic Republic of	2	8	7	8	7	1	29	23	10	9	17	2
Korea, Dem. People's Rep. of	-	-	-	-	-	-	1	-	-	2	4	-
Korea, Republic of	181	171	184	222	196	54	114	107	119	88	72	14
Lao People's Dem. Rep.	-	-	-	-	-	-	5	3	8	8	10	3
Macao, China	1	-	-	-	-	-	2	6	8	4	12	1
Malaysia	84	78	74	73	72	20	186	125	93	127	162	58
Maldives	-	-	-	-	-	-	-	-	1	5	2	2
Mongolia	-	1	-	-	-	-	6	2	8	3	6	1
Myanmar	-	-	-	-	1	-	5	1	-	2	3	3
Nepal	-	-	-	-	-	-	1	1	-	1	1	2
Pakistan	6	3	6	4	3	4	23	20	70	28	29	4
Philippines	30	14	6	10	24	5	73	75	65	62	95	24
Singapore	90	102	87	103	92	47	156	177	159	199	240	75
Sri Lanka	2	3	5	4	1	-	10	12	12	10	15	3
Taiwan Province of China	149	111	88	122	121	32	116	84	68	68	61	17
Thailand	36	19	19	36	29	9	162	128	120	116	121	51
Timor-Leste	-	-	-	-	-	-	1	-	1	-	-	-
Viet Nam	23	7	12	17	15	6	130	162	169	203	258	74
Oceania	-	-	-	2	-	1	7	7	2	5	3	3
Fiji	-	-	-	-	-	-	3	-	-	1	1	2
Micronesia, Federated States of	-	-	-	1	-	-	-	-	-	1	-	-
New Caledonia	-	-	-	-	-	-	-	3	1	-	1	1
Papua New Guinea	-	-	-	-	-	1	4	4	1	3	1	-
Transition economies	158	169	192	216	190	45	799	708	946	801	744	202
South-East Europe	6	15	8	16	9	2	139	124	153	142	150	37
Albania	-	1	-	-	-	-	9	7	13	12	6	3
Bosnia and Herzegovina	-	1	2	-	-	-	28	19	30	19	21	2
Croatia	3	11	6	9	7	2	44	40	46	39	32	2
Serbia and Montenegro	2	2	-	7	2	-	48	51	53	46	82	27
The FYR of Macedonia	1	-	-	-	-	-	10	7	11	26	9	3
CIS	152	154	184	200	181	43	660	584	793	659	594	165
Armenia	1	-	2	1	-	-	16	6	12	8	7	2
Azerbaijan	4	1	4	2	10	6	25	26	20	14	17	10
Belarus	-	6	2	7	14	-	15	11	11	20	19	3
Georgia	-	1	-	-	-	-	4	6	11	10	15	9
Kazakhstan	3	7	12	5	2	2	36	31	29	24	33	8
Kyrgyzstan	2	-	2	-	-	-	6	1	3	3	4	2

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Annex table A.I.1. Number of greenfield FDI projects, by source/destination, 2003–2008^a (concluded)

Partner region/economy	World as destination						World as source					
	2003	2004	2005	2006	2007	2008 ^a	2003	2004	2005	2006	2007	2008 ^a
	<u>Source</u>						<u>Destination</u>					
Moldova, Republic of	-	-	-	-	-	-	8	14	13	6	12	1
Russian Federation	120	111	146	161	134	28	429	382	541	423	363	95
Tajikistan	-	-	-	-	-	-	6	4	6	2	4	-
Turkmenistan	-	-	-	-	-	-	13	3	1	-	5	2
Ukraine	22	28	16	24	21	7	72	85	132	131	104	30
Uzbekistan	-	-	-	-	-	-	30	15	14	18	11	3

Source: UNCTAD, based on information from the OCO monitor website (www.ocomonitor.com).

^a First quarter of 2008 only.

Note: The database includes new FDI projects and expansions of existing projects both announced and realized. Because of non-availability of data on the value of most projects, only the number of cases can be used. Data from this database are available from 2003 onwards only.

Annex table A.I.2. Number of greenfield FDI projects, by sector/industry, 2003–2008^a

Sector/industry	2003	2004	2005	2006	2007	2008 ^a
Primary	519	326	463	490	605	167
Minerals	36	27	50	22	28	13
Coal, oil and natural gas	435	258	337	288	290	86
Alternative/renewable energy	48	41	76	180	287	68
Manufacturing	5 516	5 989	5 801	6 403	5 776	1 522
Food, beverages and tobacco	709	781	709	785	649	188
Beverages	139	157	101	132	115	43
Food and tobacco	570	624	608	653	534	145
Textiles	421	590	424	517	507	100
Wood and wood products	238	226	230	194	180	47
Paper, printing and packaging	134	130	129	119	113	35
Wood products	104	96	101	75	67	12
Chemicals and chemical products	693	691	599	669	647	175
Biotechnology	46	69	75	82	87	27
Chemicals	440	416	322	383	368	81
Pharmaceuticals	207	206	202	204	192	67
Rubber and plastic products	276	291	311	347	291	83
Plastics	224	229	237	272	203	67
Rubber	52	62	74	75	88	16
Non-metallic minerals	170	189	196	224	232	51
Building and construction materials	132	146	159	189	162	41
Ceramics and glass	38	43	37	35	70	10
Metals	433	375	547	458	452	123
Machinery and equipment	371	449	481	603	654	180
Engines and turbines	53	50	47	72	68	25
Industrial machinery, equipment and tools	318	399	434	531	586	155
Electrical and electronic equipment	864	974	965	958	776	198
Business machines and equipment	129	178	180	163	116	26
Consumer electronics	250	229	239	200	167	37
Electronic components	266	317	363	366	332	100
Semiconductors	219	250	183	229	161	35
Medical devices	82	90	93	130	89	32
Motor vehicles and other transport equipment	865	902	839	913	848	228
Aerospace	89	102	112	149	126	46
Automotive components	381	406	357	378	357	96
Automotive original equipment manufacturer	354	337	321	328	302	64
Non-automotive transport original equipment manufacturer	41	57	49	58	63	22
Consumer products	394	431	407	605	451	117
Services	3 434	3 939	4 368	5 548	5 322	1 418
Hotels and tourism	305	290	269	311	295	81
Transport, storage and communications	627	785	1 047	1 173	963	260
Communications	339	364	528	581	426	135
Transportation	176	266	366	406	426	102
Warehousing and storage	112	155	153	186	111	23
Financial services	634	640	793	1 142	1 118	359
Business activities	1 590	1 964	2 060	2 642	2 740	668
Business services	415	546	569	761	780	194
Real estate	238	228	278	515	557	153
Software and IT services	937	1 190	1 213	1 366	1 403	321
Space and defence	18	25	28	33	47	9
Health care	49	48	38	60	56	18
Leisure and entertainment	211	187	133	187	103	23
Total	9 469	10 254	10 632	12 441	11 703	3 107

Source: UNCTAD, based on information from the OCO monitor website (www.ocomonitor.com).

^a First quarter of 2008 only.

Note: The database includes new FDI projects and expansions of existing projects both announced and realized. Because of non-availability of data on the value of most projects, only the number of cases can be used. Data from this database are available from 2003 onwards only.

Annex table A.I.3. Cross-border M&A deals worth over \$3 billion completed in 2007

Rank	Value (\$ billion)	Acquired company	Host economy ^a	Acquiring company	Home economy ^b	Industry of the acquiring company
1	98.2	ABN-AMRO Holding NV	Netherlands	RFS Holdings BV	United Kingdom	Investors, nec
2	37.6	Alcan Inc	Canada	Rio Tinto PLC	United Kingdom	Gold ores
3	26.4	Endesa SA	Spain	Investor Group	Italy	Investors, nec
4	22.8	Tyco Healthcare Group Ltd	United States	Shareholders	United States	Investors, nec
5	22.2	Scottish Power PLC	United Kingdom	Iberdrola SA	Spain	Electrical services
6	21.0	ABN AMRO North America Holding Co	United States	Bank of America Corp	United States	National commercial banks
7	19.6	Alliance Boots PLC	United Kingdom	AB Acquisitions Ltd	United States	Investors, nec
8	19.3	Tyco Electronics Ltd	United States	Shareholders	United States	Investors, nec
9	15.6	Hanson PLC	United Kingdom	Lehigh UK Ltd	Germany	Investors, nec
10	15.0	Koninklijke Numico NV	Netherlands	Groupe Danone SA	France	Dry, condensed, and evaporated dairy products
11	14.7	Gallaher Group PLC	United Kingdom	JTI(UK)Management Ltd	Japan	Investors, nec
12	14.6	MedImmune Inc	United States	AstraZeneca PLC	United Kingdom	Pharmaceuticals
13	14.4	Organon Biosciences (OBS)	Netherlands	Schering-Plough Corp	United States	Pharmaceuticals
14	14.2	Rinker Group Ltd	Australia	Cemex SAB de CV	Mexico	Cement, hydraulic
15	14.2	Rodamco Europe NV	Netherlands	Unibail Holding SA	France	Real estate investment trusts
16	12.7	Hutchison Essar Ltd	India	Vodafone Group PLC	United Kingdom	Radiotelephone communications
17	12.4	Lyondell Chemical Co	United States	Basell NV	United States	Plastic materials and synthetic resins
18	11.8	Corus Group PLC	United Kingdom	Tata Steel UK Ltd	India	Investors, nec
19	11.6	GE Plastics	United States	SABIC	Saudi Arabia	Chemicals and chemical preparations, nec
20	11.1	Assurances Generales de France SA	France	Allianz AG	Germany	Investment advice
21	10.2	Euronext NV	Netherlands	NYSE Group Inc	United States	Security and commodity exchanges
22	9.9	Compass Bancshares Inc.	United States	BBVA	Spain	Banks
23	8.6	Serono International SA	Switzerland	Merck KGaA	Germany	Pharmaceuticals
24	8.5	Southern Water Capital Ltd	United Kingdom	Investor Group	United States	Investors, nec
25	7.9	Nikko Cordial Corp	Japan	Citigroup Japan Investments LLC	United States	National commercial banks
26	7.8	DEPFA Bank PLC	Ireland	Hypo Real Estate Holding AG	Germany	Mortgage bankers and loan correspondents
27	7.8	Thomson Learning Inc	United States	Investor Group	Canada	Investors, nec
28	7.7	Delta Air Lines Inc	United States	Various creditors	unspecified	Investors, nec
29	7.6	Shell Canada Ltd	Canada	Royal Dutch/Shell Group	Netherlands	Crude petroleum and natural gas
30	7.6	IPSCO Inc	United States	Svenskt Stal AB (SSAB)	Sweden	Cold-rolled steel sheets, strip and bars
31	7.5	Alinta Ltd	Australia	Investor Group	Singapore	Investors, nec
32	7.5	EnCana Corp	Canada	ConocoPhillips Co	United States	Crude petroleum and natural gas
33	7.4	KeySpan Corp	United States	National Grid PLC	United Kingdom	Electric services
34	7.4	Chrysler Group	United States	Cerberus Capital Management LP	United States	Investors, nec
35	7.2	Groupe Danone SA	France	Kraft Foods Inc	United States	Dry, condensed, and evaporated dairy products
36	7.1	Dade Behring Holdings Inc	United States	Siemens Medical Solutions Inc	Germany	Electromedical and electrotherapeutic apparatus
37	7.1	US Foodservice Inc	United States	US Foodservice SPV	United States	Investors, nec
38	6.8	Metrovacesa SA	Spain	Metrovacesa SA	France	Real estate agents and managers
39	6.6	Merck KGaA	Germany	Mylan Laboratories Inc	United States	Pharmaceuticals
40	6.4	TDF SA	France	TDF SPV	United Kingdom	Investors, nec
41	6.3	Endesa SA	Spain	Enel SpA	Italy	Electrical services
42	6.3	LionOre Mining International Ltd	Canada	OAO MMC Norilsk Nickel Group	Russian Federation	Rolling, drawing, & extruding of non-ferrous metals
43	6.2	Western Oil Sands Inc	Canada	Marathon Oil Corp	United States	Petroleum refining
44	6.1	American Power Conversion Corp	United States	Schneider Electric SA	France	Power, distribution, and specialty transformers
45	5.8	Gazprom Neft	Russian Federation	EniNeftegaz	Italy	Crude petroleum and natural gas
46	5.8	Novelis Inc	United States	AV Aluminum Inc	India	Investors, nec
47	5.8	Altana AG	Germany	Nycomed A/S	Sweden	Pharmaceuticals
48	5.6	Arcelor Brasil SA	Brazil	Mittal Steel Co NV	Luxembourg	Steel foundries
49	5.6	Saga Group Ltd	United Kingdom	Automobile Association Ltd	Luxembourg	Automotive services, except repair and carwashes
50	5.6	Northwest Airlines Corp	United States	Various creditors	unspecified	Investors, nec

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Annex table A.I.3. Cross-border M&A deals worth over \$3 billion completed in 2007 (concluded)

Rank	Value (\$ billion)	Acquired company	Host economy ^a	Acquiring company	Home economy ^b	Industry of the acquiring company
51	5.5	Gerber Products Co	United States	Nestle SA	Switzerland	Chocolate and cocoa products
52	5.5	FASTWEB SpA	Italy	Swisscom AG	Switzerland	Telephone communications, except radiotelephone
53	5.3	Bayer Healthcare AG	United States	Siemens AG	Germany	Radio/TV broadcasting/communications equipment
54	5.2	Sampo Bank Oyj	Finland	Danske Bank A/S	Denmark	Banks
55	4.9	Ingersoll-Rand Co Ltd	United States	Doosan Infracore Co Ltd	Korea, Republic of	Construction machinery and equipment
56	4.8	Smiths Aerospace Ltd	United Kingdom	General Electric Co	United States	Power, distribution and specialty transformers
57	4.8	Schwarz Pharma AG	Germany	Union Chimique Belge SA (UCB SA)	Belgium	Biological products, except diagnostic substances
58	4.8	Cassa di Risparmio di Parma & Piacenza SpA	Italy	Investor Group	France	Investors, nec
59	4.8	Dominion Resources Inc	United States	ENI SpA	Italy	Crude petroleum and natural gas
60	4.6	Vivarte SA	France	Charterhouse Capital Partners VIII	United Kingdom	Investment offices, nec
61	4.4	SBS Broadcasting SARL	Luxembourg	ProSiebenSat1 Media AG	United States	Television broadcasting stations
62	4.4	TIM Hellas Telecommunications SA	Greece	Weather Investments Srl	Italy	Special purpose finance
63	4.3	Armor Holdings Inc	United States	BAE Systems Inc	United Kingdom	Aircraft engines and engine parts
64	4.2	Bank fuer Arbeit & Wirtschaft AG	Austria	Cerberus Capital Management LP	United States	Investors, nec
65	4.1	Chaparral Steel Co	United States	Gerdau Ameristeel Corp	Brazil	Steel works, blast furnaces and rolling mills
66	4.1	ProSiebenSat.1 Media AG	Germany	Lavena Holding 4 GmbH	United States	Investors, nec
67	4.0	Airwave O2 Ltd	United Kingdom	Guardian Digital Communications Ltd	Australia	Telephone communications, except radiotelephone
68	4.0	Harcourt Education	United States	Houghton Mifflin Co	United States	Books: publishing, or publishing & printing
69	3.9	WGC-4	Russian Federation	E ON AG	Germany	Electrical services
70	3.9	Putnam Investments	United States	Great-West Lifeco Inc	Canada	Investors, nec
71	3.9	Investa Property Group	Australia	Morgan Stanley Real Estate Shareholders	United States	Real estate investment trusts
72	3.8	WABCO	Belgium	Qatar Telecom QSC (Qtel)	United States	Investors, nec
73	3.8	National Mobile Telecommunications Co KSC (Wataniya)	Kuwait	Qatar Telecom QSC (Qtel)	Qatar	Telephone communications, except radiotelephone
74	3.7	Molnlycke Health Care AB	Sweden	Investor Group	Sweden	Investors, nec
75	3.7	United Utilities PLC	United Kingdom	North West Electricity Networks Ltd	Australia	Investors, nec
76	3.7	Solectron Corp	United States	Flextronics International Ltd	Singapore	Printed circuit boards
77	3.6	Endemol Investment Holding BV	Netherlands	Edam Acquisition BV	United States	Investors, nec
78	3.6	Spirit Finance Corp	United States	Redford Holdco LLC	Australia	Investors, nec
79	3.5	Edgars Consolidated Stores Ltd	South Africa	Bain Capital LLC	United States	Investors, nec
80	3.5	UGS Corp	United States	Siemens Automation & Drives Group	Germany	Process control instruments
81	3.5	New Plan Excel Realty Trust Inc	United States	Centro Retail Group	Australia	Operators of non-residential buildings
82	3.4	Publishing & Broadcasting Ltd	Australia	CVC Asia Pacific Ltd	United Kingdom	Investors, nec
83	3.4	Mirant Corp	Philippines	Investor Group	Japan	Investors, nec
84	3.4	GLG Partners LP	United Kingdom	Freedom Acquisition Holdings Inc	United States	Investment offices, nec
85	3.4	ANR Pipeline Co	United States	TransCanada Corp	Canada	Electrical services
86	3.4	First Choice Holidays PLC	United Kingdom	TUI Travel	Germany	Travel agencies
87	3.3	Essent Kabelcom BV (Essent NV)	Netherlands	Multikabel SPV	United States	Investors, nec
88	3.3	Veritas DGC Inc	United States	Cie Generale de Geophysique SA	France	Crude petroleum and natural gas
89	3.3	Weyerhaeuser Co	United States	Domtar Inc	Canada	Paper mills
90	3.2	TD Banknorth Inc	United States	Toronto-Dominion Bank	Canada	Banks
91	3.2	Meridian Gold Inc	United States	Yamana Gold Inc	Canada	Gold ores
92	3.2	Terasen Inc	Canada	Fortis Inc	Canada	Electrical services
93	3.2	Lafarge Roofing GmbH	Germany	PAI Partners SA	France	Investors, nec
94	3.1	Turkcell Iletisim Hizmetleri AS	Turkey	TeliaSonera AB	Sweden	Telephone communications, except radiotelephone
95	3.1	Akbank TAS	Turkey	Citigroup Inc	United States	National commercial banks
96	3.0	Santander Central Hispano SA	Spain	Investor Group	United Kingdom	Investors, nec

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Note: Where the ultimate parent company is different, M&A deals within the same economy are still considered cross-border M&As.

^a Immediate country.

^b Ultimate country.

Annex table A.I.4. Various types of cross-border M&A cases in the UNCTAD database

Case	Diagram	Description	Number of deals (1987-2007)	Value (\$ million) (1987-2007)	Impact on BOP-based FDI inflows in the host country
1		A domestic company in country X acquires (or merges with) a domestic company in country Y	66 903	5 983 754	+ (country Y)
2		A domestic company in country X acquires (or merges with) a foreign company in country X	15 872	1 230 026	- (country X)
3		A foreign company in country X, whose parent company is in country Y acquires (or merges with) a domestic company in country X.	15 817	1 075 049	+ (country X)
4		A domestic company in country X acquires (or merges with) a foreign company in country Y, whose parent company is based in country Z	8 564	834 640	+ (country Y)
5		A domestic company in country X acquires (or merges with) a foreign company in country Y, whose parent company is based in country X	7 943	843 752	+ (country Y)
6		A foreign company in country X, whose parent company is based in country Z, acquires (or merges with) a domestic company in country Y	4 927	288 822	+ (country Y)
7		A foreign company in country X acquires (or merges with) a foreign company in country X, whose parent companies are both based in country Y	1 997	150 565	+/- (country X)
8		A foreign company in country X, whose parent company is based in country Y, acquires (or merges with) a foreign company in country X, whose parent company is based in country Z	1 644	113 467	+/- (country X)
9		A foreign company in country X acquires (or merges with) a domestic company in country Y	1 499	166 766	+ (country Y)
10		A foreign company in country X acquires (or merges with) a foreign company in country Y	965	73 141	+ (country Y)
11		A foreign company in country X acquires (or merges with) a foreign company in country Y	745	55 682	+ (country Y)
Total			126 876	10 815 662	

Note: Ranked in descending order of the number of deals concluded during 1987–2007. Shaded cases are newly added to the UNCTAD database on cross-border M&As.

Annex table A.I.5. Estimated world inward FDI stock, by sector and industry, 1990 and 2006
(Millions of dollars)

Sector/industry	1990			2006			
	Developed countries	Developing economies	World	Developed countries	Developing economies	South-East Europe and CIS	World
Total	1 582 724	358 528	1 941 252	9 405 550	2 798 869	210 868	12 415 287
Primary	151 816	30 170	181 986	717 803	229 605	41 324	988 732
Agriculture, hunting, forestry and fishing	3 473	4 344	7 817	9 614	9 454	1 685	20 753
Mining, quarrying and petroleum	148 343	23 793	172 136	708 189	206 041	39 639	953 870
Unspecified primary	-	2 033	2 033	-	14 109	-	14 109
Manufacturing	641 886	154 572	796 459	2 741 271	718 409	60 891	3 520 571
Food, beverages and tobacco	70 083	9 727	79 810	299 636	38 884	9 990	348 511
Textiles, clothing and leather	23 323	5 382	28 705	65 575	11 399	476	77 450
Wood and wood products	20 130	4 776	24 906	84 882	14 851	2 782	102 515
Publishing, printing and reproduction of recorded media	15 081	593	15 675	58 966	274	66	59 305
Coke, petroleum products and nuclear fuel	54 599	3 185	57 784	37 951	22 736	7 436	68 122
Chemicals and chemical products	124 510	46 913	171 423	632 916	95 776	6 529	735 220
Rubber and plastic products	12 970	1 919	14 889	59 844	7 287	983	68 114
Non-metallic mineral products	16 910	2 741	19 651	87 264	14 268	3 902	105 434
Metals and metal products	52 247	15 162	67 410	225 719	31 408	23 271	280 398
Machinery and equipment	53 247	8 942	62 190	178 197	28 003	2 022	208 221
Electrical and electronic equipment	71 231	18 267	89 498	270 060	78 260	1 238	349 558
Precision instruments	11 810	499	12 309	69 186	2 214	128	71 527
Motor vehicles and other transport equipment	47 073	8 243	55 316	289 993	40 726	1 212	331 931
Other manufacturing	19 234	3 076	22 311	105 151	10 252	331	115 734
Unspecified secondary	49 436	25 146	74 583	275 932	322 073	527	598 532
Services	780 054	168 796	948 850	5 838 666	1 784 601	96 758	7 720 025
Electricity, gas and water	7 104	3 050	10 155	183 041	57 843	1 945	242 829
Construction	16 705	5 434	22 138	70 670	24 277	3 102	98 048
Trade	202 757	25 577	228 334	1 117 383	209 173	12 971	1 339 527
Hotels and restaurants	21 163	4 740	25 903	65 665	23 882	1 761	91 307
Transport, storage and communications	16 317	13 302	29 619	582 657	178 844	10 907	772 408
Finance	289 340	95 339	384 679	1 970 262	432 716	31 601	2 434 579
Business activities	122 855	16 514	139 369	1 229 987	792 117 ^a	33 395	2 055 499 ^a
Public administration and defence	-	59	59	20 856	333	21	21 210
Education	94	-	94	146	84	185	415
Health and social services	994	-	994	11 906	1 551	64	13 521
Community, social and personal service activities	13 359	20	13 379	37 011	10 428	790	48 230
Other services	71 562	2 973	74 535	158 935	20 456	16	179 407
Unspecified tertiary	17 805	1 787	19 591	390 147	32 897	-	423 044
Private buying and selling of property	-	-	-	4 126	-	-	4 126
Unspecified	8 967	4 990	13 957	103 684	66 255	11 895	181 833

Source: UNCTAD.

^a A considerable share of investment in business activities is in Hong Kong (China), which accounted for 82% of developing economies and 31% of the world total in 2006. Hong Kong (China) data include investment holding companies.

Note: Data should be interpreted with caution. The world total was extrapolated on the basis of data covering 52 countries in 1990 and 90 countries in 2006, or latest year available. They account for about four-fifths of world inward FDI stock in 1990 and 2006. Only countries for which data for the three main sectors were available were included. The distribution share of each industry of these countries was applied to estimate the world total in each sector and industry. As a result, the sum of the sectors for each group of economies is different from the totals shown in annex table B.2. In the case of some countries where only approval data were available, the actual data were estimated by applying the implementation ratio of realized FDI to approved FDI to the latter (56% in 1994 for Japan, 10% in 1990 and 7% in 1999 for Lao People's Democratic Republic, 44% in 2002 for Mongolia, 39% in 1990 and 35% in 2005 for Myanmar, 41% in 1990 and 35% in 1999 for Nepal, 62% in 1995 for Sri Lanka, 73% in 1990 and 64% in 2006 for Taiwan Province of China). The world total in 1990 includes the countries of South-East Europe and CIS, although data by sector and industry were not available for that region.

Annex table A.I.6. Estimated world outward FDI stock, by sector and industry, 1990 and 2006
(Millions of dollars)

Sector/industry	1990			2006			
	Developed countries	Developing economies	World	Developed countries	Developing economies	South-East Europe and CIS	World
Total	1 764 942	20 325	1 785 267	11 355 635	1 398 362	2 151	12 756 149
Primary	154 639	2 598	157 236	900 753	47 570	- 720	947 603
Agriculture, hunting, forestry and fishing	3 420	309	3 729	5 414	1 946	243	7 602
Mining, quarrying and petroleum	151 218	2 289	153 507	895 340	45 624	- 963	940 001
Manufacturing	769 333	7 223	776 556	3 233 563	131 930	1 472	3 366 966
Food, beverages and tobacco	73 136	301	73 437	344 562	3 638	290	348 491
Textiles, clothing and leather	18 912	1 032	19 944	49 180	3 968	1	53 149
Wood and wood products	22 442	944	23 386	87 227	2 178	71	89 477
Publishing, printing and reproduction of recorded media	2 191	56	2 248	25 702	87	0	25 790
Coke, petroleum products and nuclear fuel	38 039	35	38 074	35 899	59	77	36 035
Chemicals and chemical products	163 058	189	163 247	808 759	4 153	680	813 592
Rubber and plastic products	14 069	881	14 950	47 757	3 030	1	50 788
Non-metallic mineral products	12 691	297	12 988	41 197	1 038	145	42 380
Metals and metal products	72 601	34	72 635	229 607	1 928	141	231 677
Machinery and equipment	40 668	3	40 672	143 507	567	3	144 077
Electrical and electronic equipment	102 220	92	102 312	304 430	10 881	15	315 326
Precision instruments	13 087	-	13 087	55 585	2	-	55 587
Motor vehicles and other transport equipment	58 289	10	58 299	510 684	1 176	11	511 871
Other manufacturing	50 028	75	50 103	185 208	1 077	36	186 322
Unspecified secondary	87 900	3 274	91 174	364 257	98 148	-	462 405
Services	836 532	9 841	846 373	7 002 067	1 169 953	1 181	8 173 201
Electricity, gas and water	9 304	-	9 304	135 106	9 311	504	144 922
Construction	17 647	107	17 754	72 644	10 222	- 661	82 205
Trade	137 832	1 714	139 546	791 080	123 617	166	914 862
Hotels and restaurants	6 895	-	6 895	92 638	9 273	16	101 927
Transport, storage and communications	38 464	454	38 918	543 325	62 839	- 101	606 063
Finance	416 443	6 113	422 556	2 539 846	218 371	450	2 758 666
Business activities	81 733	1 267	83 000	2 109 638	724 572 ^a	807	2 835 017 ^a
Public administration and defence	-	-	-	7 589	4	-	7 593
Education	417	-	417	507	8	-	516
Health and social services	828	-	828	1 117	69	-	1 187
Community, social and personal service activities	3 314	-	3 314	28 365	1 666	-	30 031
Other services	108 944	175	109 119	261 882	10 001	-	271 884
Unspecified tertiary	14 711	10	14 722	418 329	-	-	418 329
Private buying and selling of property	862	-	862	1 918	-	-	1 918
Unspecified	3 577	663	4 240	217 334	48 909	217	266 461

Source: UNCTAD.

^a A considerable share of investment in business activities is in Hong Kong (China), which accounted for 86% of developing economies and 22% of the world total in 2006. Hong Kong (China) data include investment holding companies.

Notes: Data should be interpreted with caution. The world total was extrapolated on the basis of data covering 27 countries in 1990 and 47 countries in 2006, or latest year available. They account for 79 and 88 per cent of world outward FDI stock respectively in 1990 and in 2006. Only countries for which data for the three main sectors were available were included. The distribution share of each industry of these countries was applied to estimate the world total in each sector and industry. As a result, the sum of the sectors for each group of economies is different from the totals shown in annex table B.2. Approval data were used for Taiwan Province of China. For 1990, the world total includes the countries of South-East Europe and CIS although data by sector and industry were not available for that region. Moreover, as major home developing economies were not covered due to lack of data, the respective shares for developing economies were underestimated in that year.

Annex table A.I.7. Estimated world inward FDI flows, by sector and industry, 1989-1991 and 2004-2006
(Millions of dollars)

Sector/industry	1989-1991			2004-2006			
	Developed countries	Developing economies	World	Developed countries	Developing economies	South-East Europe and CIS	World
Total	151 876	34 674	186 549	700 237	300 877	28 023	1 029 137
Primary	9 071	3 887	12 958	102 177	28 784	5 173	136 134
Agriculture, hunting, forestry and fishing	- 6	634	628	- 25	1 966	213	2 154
Mining, quarrying and petroleum	9 039	3 253	12 292	102 226	26 819	4 959	134 004
Unspecified primary	37	-	37	- 24	-	0	- 24
Manufacturing	47 588	16 128	63 717	126 865	102 345	6 943	236 153
Food, beverages and tobacco	4 829	2 380	7 209	15 340	7 200	1 059	23 599
Textiles, clothing and leather	2 105	242	2 347	4 659	1 203	83	5 945
Wood and wood products	1 999	238	2 237	326	1 123	524	1 974
Publishing, printing and reproduction of recorded media	867	-	867	3 017	167	15	3 200
Coke, petroleum products and nuclear fuel	- 1 086	312	- 774	- 4 582	1 036	1 439	- 2 107
Chemicals and chemical products	10 207	2 063	12 271	33 331	4 754	833	38 919
Rubber and plastic products	930	31	960	3 231	382	176	3 789
Non-metallic mineral products	1 293	224	1 517	6 710	1 143	854	8 708
Metals and metal products	3 959	1 281	5 239	15 338	3 418	821	19 577
Machinery and equipment	4 833	2 960	7 793	12 819	7 523	446	20 788
Electrical and electronic equipment	3 519	851	4 370	10 142	4 749	67	14 958
Precision instruments	834	-	834	4 603	90	24	4 716
Motor vehicles and other transport equipment	3 559	331	3 890	5 079	2 041	175	7 294
Other manufacturing	2 237	845	3 082	4 690	842	26	5 559
Unspecified secondary	7 503	4 372	11 875	12 160	66 673	401	79 234
Services	83 376	10 649	94 025	400 073	158 895	15 128	574 096
Electricity, gas and water	824	1 192	2 017	10 195	6 001	205	16 401
Construction	480	572	1 052	6 501	3 369	424	10 295
Trade	16 441	2 329	18 770	60 276	20 650	2 676	83 601
Hotels and restaurants	3 591	1 080	4 671	1 386	2 958	157	4 501
Transport, storage and communications	1 693	1 205	2 899	54 052	22 864	1 466	78 382
Finance	30 249	2 196	32 446	139 885	54 285	3 699	197 870
Business activities	17 228	1 324	18 551	97 113	40 901 ^a	6 063	144 077 ^a
Public administration and defence	2 309	0	2 309	1 550	0	172	1 722
Education	7	4	11	63	91	16	170
Health and social services	67	23	90	1 852	223	33	2 108
Community, social and personal service activities	2 266	6	2 272	- 3 386	1 837	79	- 1 470
Other services	7 217	423	7 639	8 910	1 222	2	10 133
Unspecified tertiary	1 002	295	1 298	21 676	4 493	136	26 306
Private buying and selling of property	114	-	114	9 624	-	1	9 625
Unspecified	11 727	4 009	15 736	61 498	10 853	778	73 129

Source: UNCTAD.

^a A considerable share of investment in business activities is in Hong Kong (China), which accounted for 43% of developing economies and 12% of the world total during 2004-2006. Hong Kong (China) data include investment holding companies.

Note: Data should be interpreted with caution. The world total was extrapolated on the basis of data covering 70 countries in 1989-1991 and 104 countries in 2004-2006, or the latest three-year period average available. They account for 88 and 93 per cent of world inward FDI flows respectively in the periods 1989-1991 and 2004-2006. Only countries for which data for the three main sectors were available were included. The distribution share of each industry of these countries was applied to estimate the world total in each sector and industry. As a result, the sum of the sectors for each group of economies is different from the totals shown in annex table B.1. Approval data were used for Israel (1994 instead of 1989-1991), Mongolia (1991-1993 instead of 1989-1991) and Mozambique (2003-2005). In the case of some countries, the actual data were estimated by applying the implementation ratio of realized FDI to approved FDI to the latter: Bangladesh (2% in 1989-1991), Cambodia (9% in 1994-1995), China (47% in 1989-1991), Indonesia (15% in 1989-1991), Islamic Republic of Iran (69% in 1993-1995 and 22% in 2001-2003), Japan (20% in 1989-1991 and 25% in 2003-2004), Jordan (74% in 2001-2003), Kenya (7% in 1992-1994), Lao People's Democratic Republic (1% in 1989-1991), Malaysia (52% in 1989-1991), Mauritius (72% in 1995), Mexico (93% in 1988-1990), Mongolia (54% in 2003-2005), Myanmar (70% in 1989-1991), Nepal (30% in 1989-1991 and 53% in 1996-1998), Papua New Guinea (20% in 1993-1995 and 36% in 1996-1998), Solomon Islands (1% in 1994-1995 and 3% in 1996), Sri Lanka (47% in 1995 and 69% in 2002-2004), Taiwan Province of China (65% in 1989-1991 and 49% in 2004-2006), Turkey (40% in 1989-1991) and Zimbabwe (23% in 1993-1995). The world total in 1989-1991 includes the countries of South-East Europe and CIS, although data by sector and industry are not available for that region.

Annex table A.I.8. Estimated world outward FDI flows, by sector and industry, 1989-1991 and 2004-2006
(Millions of dollars)

Sector/industry	1989-1991			2004-2006			
	Developed countries	Developing economies	World	Developed countries	Developing economies	South-East Europe and CIS	World
Total	217 635	6 141	223 777	950 138	91 638	- 407	1 041 370
Primary	9 869	291	10 160	102 330	7 808	- 358	109 779
Agriculture, hunting, forestry and fishing	467	45	512	467	315	55	836
Mining, quarrying and petroleum	9 269	246	9 515	101 942	7 493	- 413	109 022
Unspecified primary	133	-	133	- 79	-	-	- 79
Manufacturing	80 049	3 491	83 540	252 538	12 679	267	265 484
Food, beverages and tobacco	12 233	250	12 483	35 158	385	76	35 619
Textiles, clothing and leather	1 947	178	2 125	8 171	362	- 1	8 533
Wood and wood products	4 538	74	4 612	3 520	30	5	3 555
Publishing, printing and reproduction of recorded media	137	-	137	2 669	1	1	2 671
Coke, petroleum products and nuclear fuel	2 943	-	2 943	5 534	597	- 3	6 129
Chemicals and chemical products	13 076	1 136	14 212	67 669	301	92	68 062
Rubber and plastic products	1 072	128	1 200	4 899	26	-	4 926
Non-metallic mineral products	637	165	802	2 914	51	24	2 990
Metals and metal products	6 430	244	6 674	18 232	67	59	18 358
Machinery and equipment	7 437	25	7 462	20 308	59	1	20 368
Electrical and electronic equipment	10 606	868	11 473	27 590	1 132	11	28 733
Precision instruments	578	-	578	12 148	-	-	12 148
Motor vehicles and other transport equipment	4 061	-	4 061	16 774	84	1	16 860
Other manufacturing	7 571	9	7 580	3 023	93	- 1	3 115
Unspecified secondary	6 783	414	7 197	23 926	9 492	-	33 418
Services	110 660	2 024	112 683	497 039	64 544	- 344	561 240
Electricity, gas and water	1 023	-	1 023	12 794	1 848	-	14 642
Construction	2 246	97	2 343	6 637	666	- 218	7 085
Trade	14 219	318	14 537	73 541	9 429	58	83 028
Hotels and restaurants	405	3	408	3 480	655	5	4 140
Transport, storage and communications	6 770	57	6 827	34 273	3 802	- 195	37 881
Finance	43 715	1 179	44 893	217 365	15 903	99	233 367
Business activities	29 351	17	29 368	115 093	27 366 ^a	- 94	142 366 ^a
Public administration and defence	-	-	-	862	-	-	862
Education	18	-	18	64	1	-	65
Health and social services	- 110	-	- 110	- 88	3	-	- 84
Community, social and personal service activities	501	-	501	3 976	- 7	-	3 968
Other services	8 551	344	8 896	11 472	952	-	12 424
Unspecified tertiary	3 970	8	3 979	17 571	3 926	-	21 496
Private buying and selling of property	497	-	497	3 064	-	-	3 064
Unspecified	16 561	336	16 897	95 167	6 607	28	101 802

Source: UNCTAD.

^a A considerable share of investment in business activities is in Hong Kong (China), which accounted for 83% of developing economies and 16% of the world total during 2004-2006. Hong Kong (China) data include investment holding companies.

Note: Data should be interpreted with caution. The world total was extrapolated on the basis of data covering 27 countries in 1989-1991 and 49 countries in 2004-2006, or the latest three-year period average available. They account for over 90 per cent of world outward FDI flows in the periods 1989-1991 and 2004-2006. Only countries for which data for the three main sectors were available were included. The distribution share of each industry of these countries was applied to estimate the world total in each sector and industry. As a result, the sum of the sectors for each group of economies is different from the totals shown in annex table B.1. Approval data was used for Taiwan Province of China. In the case of Japan, the actual data was estimated by applying the implementation ratio of realized FDI to approved FDI to the latter : 75% in 1989-1991. The world total in 1989-1991 includes the countries of South-East Europe and CIS, although data by sector and industry are not available for that region.

Annex table A.I.9. Number of parent corporations and foreign affiliates, by region and economy, latest available year
(Number)

Region/economy	Year	Parent corporations based in economy ^a	Foreign affiliates located in economy ^a	Region/economy	Year	Parent corporations based in economy ^a	Foreign affiliates located in economy ^a
Developed economies		56 448^b	366 628^b	Guinea	2004	..	31
				Guinea-Bissau	2007	..	4
Europe		45 607^b	328 864^b	Liberia	2007	1	15
				Mali	2006	1	18
European Union		42 089^b	317 687^b	Mauritania	2006	1 ^x	10
Austria	2005	1 048	2 721 ^c	Niger	2006	.. ^x	181
Belgium	2003	991 ^d	2 341 ^d	Nigeria	2006	3	171
Bulgaria	2000	26	7 153	Senegal	2006	4 ^x	68
Cyprus	2005	1 650	4 800	Sierra Leone	2006	.. ^x	11
Czech Republic	1999	660 ^e	71 385 ^f	Togo	2006	3 ^x	15
Denmark	1998	9 356	2 305 ^{g,h}				
Estonia	2007	1 168	2 858	Central Africa		7^b	188^b
Finland	2006	1 017	4 124 ^{c,g}	Burundi	2007	..	3
France	2002	1 267	10 713	Cameroon	2007	1	54
Germany	2006	5 935	9 631	Central African Republic	2007	1	2
Greece	2006	245	777	Chad	2007	..	8
Hungary	2005	..	26 019 ⁱ	Congo	2007	2	35
Ireland	2001	39 ^j	1 225 ^k	Congo, Democratic Republic of	2007	1 ^x	26
Italy	2005	5 750 ^l	7 181 ^l	Equatorial Guinea	2007	..	11
Luxembourg	2005	38 ^m	717 ^m	Gabon	2007	..	36
Latvia	2007	21	665	Rwanda	2004	2	13
Lithuania	2007	285	3 240				
Malta	2006	64	196	East and Southern Africa		551^b	1 717^b
Netherlands	2006	4 788 ⁿ	12 993	East Africa		296^b	666^b
Poland	2001	58 ^j	14 469 ^o	Comoros	2004	..	1
Portugal	2005	1 300	3 000 ^p	Djibouti	2007	1 ^x	6
Romania	2002	20 ^j	89 911	Ethiopia	2007	.. ^x	19
Slovakia	2006	437	2 780	Kenya	2007	24	126
Slovenia	2000	..	1 617 ^q	Madagascar	2007	..	43
Spain	2006	1 598 ^r	9 255	Mauritius	2006	48	98
Sweden	2007	1 268 ^s	11 944 ^c	Seychelles	2006	16	22
United Kingdom	2005	2 360	13 667	Somalia	2006	..	1
				Uganda	2006	3	55
Other developed Europe		4 218^b	11 177^b	United Republic of Tanzania	2001	204	295
Gibraltar	2007	238	148				
Iceland	2000	18	55	Southern Africa		255^b	1 051^b
Norway	2004	1 346	5 105 ⁱ	Angola	2007	2	74
Switzerland	2006	2 616 ^u	5 869	Botswana	2007	6	32
				Lesotho	2007	1	7
North America		3 857^b	28 332^b	Malawi	2006	..	32
Canada	1999	1 439	3 725 ^c	Mozambique	2006	.. ^x	89
United States	2002	2 418	24 607	Namibia	2006	2	36
				South Africa	2006	218	641
Other developed countries		6 984^b	9 432^b	Swaziland	2002	12	61
Australia	2006	1 380	1 991	Zambia	2004	11	13
Bermuda	2007	555	641	Zimbabwe	2006	3	66
Israel	2007	169	278				
Japan	2006	4 663 ^v	4 500 ^w	Latin America and the Caribbean		3 177^b	39 017^b
New Zealand	2004	217 ^e	2 022	South and Central America		838^b	36 190^b
				South America		513^b	8 782^b
Developing economies		20 586^b	413 446^b	Argentina	2007	102	1 753
Africa		737^b	6 225^b	Bolivia	2004	..	287
North Africa		156^b	3 592^b	Brazil	2007	201	3 712
Algeria	2007	..	65	Chile	2007	95 ^y	839
Egypt	2004	10	271	Colombia	2007	71 ^z	642
Morocco	2006	4	348	Ecuador	2007	14	302
Sudan	2006	.. ^x	13	Guyana	2002	4 ⁿ	56
Tunisia	2007	142 ^h	2 895	Paraguay	2007	2	137
				Peru	2004	10 ^{o,z}	329

Annex table A.I.9. Number of parent corporations and foreign affiliates, by region and economy, latest available year (continued)
(Number)

Region/economy	Year	Parent corporations based in economy ^a	Foreign affiliates located in economy ^a	Region/economy	Year	Parent corporations based in economy ^a	Foreign affiliates located in economy ^a
				Suriname	2006	1	16
Other Africa		581^b	2 633^b	Uruguay	2002	..	164 ^{aa}
West Africa		23^b	728^b	Venezuela, Bolivarian Republic of	2004	13	545
Benin	2007	..	11				
Burkina Faso	2007	..	23				
Côte d'Ivoire	2007	6	108				
Gambia	2007	..	8				
Ghana	2007	4	54	Central America		325^b	27 408^b
Belize	2007	22	22	South Asia		769	4 279
Costa Rica	2007	32	267	Afghanistan	2007	..	6
El Salvador	2003	..	304	Bangladesh	2007	9	49
Guatemala	2007	25	217	Bhutan	1997	..	2
Honduras	2004	4	253	India	2007	699	1 923
Mexico	2002	..	25 708	Maldives	2006	2	6
Nicaragua	2006	2	76	Nepal	2006	..	18
Panama	2006	240	561	Pakistan	2001	59	582
				Sri Lanka	2004	..	1 693
The Caribbean and other America		2 339	2 827				
Antigua and Barbuda	2007	5	22	South-East Asia		320	33 873
Aruba	2007	9	39	Brunei Darussalam	2007	4	47
Bahamas	2007	181	201	Cambodia	2002	..	23
Barbados	2007	33	197	Indonesia	2004	313	721
British Virgin Islands	2007	1 464	976	Lao People's Democratic Republic	2004	..	161
Cayman Islands	2007	404	710	Malaysia	1999	..	15 567
Dominica	2007	3	14	Myanmar	2006	..	25
Dominican Republic	2007	8	215	Philippines	2004	..	311
Grenada	2007	2	18	Singapore	2002	..	14 052
Haiti	2007	2	14	Thailand	1998	..	2 721
Jamaica	2007	12	104	Viet Nam	2006	3	245
Netherlands Antilles	2006	197	204				
Saint Kitts and Nevis	2006	14	12	Oceania		21	440
Saint Lucia	2006	1	32	Fiji	2006	8	151
Saint Vincent and the Grenadines	2006	4	8	Kiribati	2005	5	23
Trinidad and Tobago	2004	..	61	New Caledonia	2006	..	3
				Papua New Guinea	2004	..	208
Asia and Oceania		16 672	368 204	Samoa	2006	3	11
				Solomon Islands	2006	..	20
Asia		16 651	367 764	Tonga	2006	..	5
				Vanuatu	2006	5	19
West Asia		2 854	19 753				
				South-East Europe and CIS		1 783	14 820
Bahrain	2007	29	69				
Iran, Islamic Republic of	2007	45	31	South-East Europe		552	3 642
Jordan	2007	12	36	Albania	2007	..	20
Kuwait	2007	45	31	Bosnia and Herzegovina	2007	12	97
Lebanon	2007	28	63	Croatia	2007	485	3 256
Oman	2004	92	49	Serbia	2006	55	263
Qatar	2006	10	48	The FYR of Macedonia	2002	..	6
Saudi Arabia	2006	67	184				
Syrian Arab Republic	2006	3	14				
Turkey	2007	2 428	18 308	CIS		1 231	11 178
United Arab Emirates	2006	89	916	Armenia	2004	..	347
Yemen	2002	6	4	Azerbaijan	2007	2	53
				Belarus	2007	4	54
South, East and South-East Asia		13 797	348 011	Georgia	1998	..	190
East Asia		12 708	309 859	Kazakhstan	2007	271	2 267
China	2005	3 429	280 000	Kyrgyzstan	1998	..	4 004
Hong Kong, China	2007	1 167	9 712	Moldova, Republic of	2002	951	2 670
Korea, Republic of	2007	7 460	14 689	Russian Federation	2004	..	1 176
Macao, China	2004	46	1 024	Ukraine	2004	1	367
Mongolia	1998	..	1 400	Uzbekistan	2006	2	50
Taiwan Province of China	2005	606	3 034				
				World		78 817	794 894

Annex table A.I.9. Number of parent corporations and foreign affiliates, by region and economy, latest available year (concluded)
(Number)

Source: UNCTAD, based on national sources.

- ^a The number of parent companies/foreign affiliates in the economy shown, as defined by that economy. Deviations from the definition adopted in the *World Investment Report* (see section on "Definitions and sources" in annex B) are noted below. The data for Afghanistan, Albania, Algeria, Angola, Antigua and Barbuda, Argentina, Aruba, Azerbaijan, Bahamas, Bahrain, Bangladesh, Barbados, Belarus, Belize, Benin, Bermuda, Bosnia and Herzegovina, Botswana, Brazil, British Virgin Islands, Brunei Darussalam, Burkina Faso, Burundi, Cameroon, Cayman Islands, Central African Republic, Chad, Chile, Colombia, Congo, Costa Rica, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Dominica, Dominican Republic, Ecuador, Equatorial Guinea, Ethiopia, Gabon, Gambia, Ghana, Gibraltar, Grenada, Guatemala, Guinea-Bissau, Haiti, India, Islamic Republic of Iran, Israel (foreign affiliates), Jamaica, Jordan, Kenya, Kuwait, Latvia, Lebanon, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Malta, Mauritania, Mauritius, Morocco, Mozambique, Myanmar, Namibia, Nepal, the Netherlands, the Netherlands Antilles, New Caledonia, New Zealand, Nicaragua, Niger, Nigeria, Panama, Paraguay, Qatar, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Samoa, Saudi Arabia, Serbia and Montenegro, Senegal, Seychelles, Sierra Leone, Slovakia, Solomon Islands, Somalia, South Africa, Spain, Sudan, Suriname, Switzerland, Syrian Arab Republic, Togo, Tonga, Uganda, the United Arab Emirates, Uzbekistan, Vanuatu, Viet Nam, Western Samoa and Zimbabwe are from *Who Owns Whom* database (<https://solutions.dnb.com/woow>). For Argentina, Bermuda, Israel and South Africa, the data for parent corporations based in the economy refer only to those that have affiliates abroad and affiliates in the home economy. Therefore, the data for the number of parent corporations are underestimated in those four countries.
- ^b Data cover only the countries listed.
- ^c Majority-owned foreign affiliates.
- ^d Provisional figures by Banque Nationale de Belgique (2003).
- ^e As of 1997.
- ^f Of this number, 53,775 are wholly foreign-owned affiliates; includes joint ventures.
- ^g Directly and indirectly foreign-owned affiliates (subsidiaries and associates), excluding branches.
- ^h As of 1999.
- ⁱ Source: Hungary Statistics Office.
- ^j As of 1994.
- ^k Refers to the number of foreign-owned affiliates in Ireland in manufacturing and services activities that receive assistance from the Investment and Development Authority (IDA).
- ^l Based on Istituto Nazionale per il Commercio Estero "Italia Multinazionale 2005, Le partecipazioni italiane all'estero ed estere in Italia", 2005.
- ^m Excludes special purpose entities (i.e. holding companies).
- ⁿ Data first referred to October 1993, from 2006 extracted from the *Who Owns Whom* database.
- ^o Cumulative number of companies with foreign capital share which participated in the statistical survey.
- ^p As of 2002.
- ^q Source: Bank of Slovenia.
- ^r Data refers to 1998; includes those Spanish parent companies which are controlled at the same time by a direct investor. From 2006 extracted from the *Who Owns Whom* database.
- ^s Data provided by ITPS. Data are for 2005.
- ^t Data refers to Norwegian non-financial joint-stock companies with foreign shareholders owning more than 10 per cent of the total shares in 1998.
- ^u As of 1995. From 2006 extracted from the *Who Owns Whom* database.
- ^v Source: Bank of Japan.
- ^w As of 2005. Source: Bank of Japan.
- ^x As of 2001, from 2006 extracted from the *Who Owns Whom* database.
- ^y Estimated by Comité de Inversiones Extranjeras 1998, from 2006 extracted from the *Who Owns Whom* database.
- ^z Less than 10.
- ^{aa} Number of enterprises included in the Central Bank survey (all sectors).
- ^{ab} Source: Ministry of Economic Affairs and Finance.
- ^{ac} As of May 1995.
- ^{ad} Source: Ministry of Commerce (MOFCOM).
- ^{ae} Source: Ministry of Commerce (MOFCOM) 2003.
- ^{af} Number of regional headquarters as at 1 June 2002.
- ^{ag} As of 1999. Data refer to the number of investment projects abroad.
- ^{ah} Number of approved new investment projects abroad in 1998.
- ^{ai} Data refers to the number of approved FDI projects as at 2003; from 2006 extracted from the *Who Owns Whom* database.
- ^{aj} As at 1998.
- ^{ak} Data refers to the number of approved foreign investment projects, including joint-venture projects with local investors. Wholly owned Cambodian projects are excluded.
- ^{al} As at 1996.
- ^{am} Number of projects licensed since 1988 up to end 2004.
- ^{an} May 1999. Refers to companies with foreign equity stakes of at least 51%. Of these, 3,787 are wholly-owned foreign affiliates.
- ^{ao} Number of wholly-owned foreign affiliates.
- ^{ap} Data refers to the number of projects implemented as of 2002.
- ^{aq} Number of cases of approved investments of more than \$100,000 registered during the period January 1996 up to March 1998.
- ^{ar} Joint-venture companies established in the economy.

Annex table A.I.10. Country rankings by Inward FDI Performance Index, Inward FDI Potential Index and Outward FDI Performance Index , 2005-2007^a

Economy	Inward FDI Performance Index			Inward FDI Potential Index			Outward FDI Performance Index		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
Albania	57	65	61	85	85	..	84	82	87
Algeria	114	116	118	68	68	..	78	84	89
Angola	35	136	139	80	76	..	58	59	65
Argentina	84	81	90	62	60	..	52	49	58
Armenia	37	29	39	72	73	..	83	87	102
Australia	130	115	131	22	22	..	123	109	63
Austria	78	89	56	27	26	..	20	23	19
Azerbaijan	1	14	140	67	64	..	5	10	26
Bahamas	8	8	5	38	50	..	..	..	..
Bahrain	21	12	12	29	30	..	9	11	9
Bangladesh	117	120	121	117	119	..	107	108	106
Belarus	118	125	95	50	48	..	108	105	109
Belgium	11	10	13	17	15	..	7	7	6
Benin	102	113	123	136	138	..	113	116	116
Bolivia	138	132	129	87	90	..	98	98	103
Botswana	44	55	66	78	78	..	42	69	67
Brazil	88	97	97	70	70	..	49	37	45
Brunei Darussalam	2	64	89	51	54	..	47	60	74
Bulgaria	7	3	2	60	59	..	73	63	57
Burkina Faso	127	130	75	126	127	..	117	117	113
Cameroon	90	104	114	115	112	..	112	114	115
Canada	110	80	52	4	4	..	19	22	27
Chile	27	35	37	52	52	..	29	34	35
China	64	75	88	34	32	..	62	58	59
Colombia	39	41	44	98	94	..	27	35	39
Congo	19	32	33	101	97	..	88	90	98
Congo, Democratic Republic of	129	139	98	140	139	..	110	111	..
Costa Rica	50	49	40	73	75	..	85	74	70
Côte d'Ivoire	97	100	103	133	128	..	81	112	100
Croatia	41	43	22	56	56	..	48	53	64
Cyprus	23	24	18	45	47	..	15	19	21
Czech Republic	31	34	41	39	39	..	60	55	60
Denmark	124	128	79	21	23	..	38	33	20
Dominican Republic	53	58	70	57	58	..	116	118	119
Ecuador	85	108	127	106	101	..	104	102	104
Egypt	67	31	20	82	83	..	80	80	76
El Salvador	86	93	69	107	105	..	66	76	72
Estonia	6	9	8	35	34	..	22	17	15
Ethiopia	43	59	92	135	134	..	..	..	..
Finland	91	91	86	14	14	..	74	42	33
France	75	74	57	18	18	..	17	18	14
Gabon	87	95	101	100	99	..	119	57	55
Gambia	14	11	14	113	115	..	..	..	..
Georgia	16	15	9	94	102	..	124	125	120
Germany	121	123	108	6	6	..	37	26	24
Ghana	101	76	62	110	113	..	94	113	..
Greece	125	119	126	36	37	..	57	45	42
Guatemala	100	102	102	102	103	..	71	75	80
Guinea	73	69	85	134	132	..	118	119	118
Guyana	33	20	11	104	109	..	109	106	..
Haiti	131	107	105	139	140	..	..	..	..
Honduras	24	25	30	112	111	..	100	115	108
Hong Kong, China	3	2	1	11	10	..	3	2	3
Hungary	40	38	45	42	41	..	32	27	29
Iceland	12	4	3	10	12	..	1	1	2
India	119	110	106	86	84	..	63	50	50
Indonesia	106	103	104	103	100	..	43	43	52
Iran, Islamic Republic of	133	133	133	59	61	..	93	78	85
Ireland	141	141	137	15	16	..	10	9	11
Israel	71	42	36	26	27	..	23	15	17
Italy	113	109	107	30	31	..	35	32	28
Jamaica	20	23	26	90	92	..	65	124	124
Japan	135	137	135	24	24	..	45	44	44
Jordan	13	7	6	64	65	..	55	81	82
Kazakhstan	29	26	23	49	46	..	127	128	46
Kenya	134	134	122	125	126	..	97	91	90
Korea, Republic of	115	126	130	19	19	..	50	51	48
Kuwait	136	135	134	31	29	..	34	12	8
Kyrgyzstan	48	45	55	116	110	..	26	29	112
Latvia	47	33	31	43	42	..	46	48	53
Lebanon	10	13	10	76	82	..	51	56	61
Libyan Arab Jamahiriya	96	77	72	37	35	..	120	126	123

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Annex table A.I.10. Country rankings by Inward FDI Performance Index, Inward FDI Potential Index and Outward FDI Performance Index , 2005-2007^a (concluded)

Economy	Inward FDI Performance Index			Inward FDI Potential Index			Outward FDI Performance Index		
	2005	2006	2007	2005	2006	2007	2005	2006	2007
Lithuania	69	52	53	40	38	..	39	41	43
Luxembourg	5	1	138	5	5	..	2	3	1
Madagascar	93	72	24	130	131	..	115	..	..
Malawi	59	79	109	138	137	..	87	89	97
Malaysia	68	67	71	41	40	..	31	25	22
Mali	66	85	74	120	123	..	106	107	110
Malta	9	5	4	53	55	..	18	120	114
Mexico	74	83	91	58	57	..	54	54	56
Moldova, Republic of	34	27	19	83	79	..	91	99	88
Mongolia	17	19	16	75	71	..	..	..	..
Morocco	70	78	78	93	91	..	89	64	62
Mozambique	51	84	82	105	104	..	111	110	111
Myanmar	82	101	99	84	86	..	..	..	..
Namibia	42	46	28	88	95	..	122	122	121
Nepal	137	138	136	137	136	..	..	..	..
Netherlands	45	71	27	13	13	..	6	6	7
New Zealand	83	56	76	33	36	..	125	123	54
Nicaragua	38	47	47	111	116	..	76	62	75
Niger	123	121	125	129	133	..	99	103	117
Nigeria	62	30	25	96	88	..	69	71	83
Norway	99	106	119	7	9	..	13	16	18
Oman	65	61	48	55	51	..	44	46	47
Pakistan	103	88	83	124	125	..	92	92	94
Panama	26	16	15	63	67	..	4	5	5
Papua New Guinea	112	131	128	119	118	..	103	96	92
Paraguay	126	118	116	108	108	..	82	88	96
Peru	76	70	68	91	87	..	77	68	69
Philippines	109	99	96	77	77	..	59	67	49
Poland	56	51	60	44	43	..	53	38	38
Portugal	79	73	77	47	49	..	21	24	32
Qatar	63	94	110	8	7	..	41	52	25
Romania	25	21	32	74	69	..	95	77	91
Russian Federation	89	82	81	23	20	..	25	28	30
Rwanda	128	129	117	132	135	..	..	70	71
Saudi Arabia	92	66	51	28	28	..	86	79	41
Senegal	122	112	120	122	122	..	96	93	101
Sierra Leone	58	53	67	127	114	..	121	121	122
Singapore	4	6	7	2	2	..	12	8	10
Slovakia	30	28	49	54	53	..	64	61	68
Slovenia	95	98	94	32	33	..	30	30	31
South Africa	105	124	112	71	74	..	56	40	37
Spain	80	90	87	25	25	..	14	14	13
Sri Lanka	108	111	113	123	124	..	79	85	79
Sudan	15	17	21	118	121	..	..	104	105
Suriname	140	140	141	81	81	..	..	..	..
Sweden	77	57	58	9	8	..	11	13	12
Switzerland	98	87	46	20	21	..	8	4	4
Syrian Arab Republic	104	105	100	92	96	..	68	73	81
Taiwan Province of China	132	122	111	16	17	..	28	31	34
Tajikistan	32	18	17	97	93	..	..	..	..
The FYR of Macedonia	61	50	63	109	107	..	102	100	107
Thailand	49	54	64	61	63	..	67	65	66
Togo	72	68	80	128	130	..	126	127	125
Trinidad and Tobago	22	36	54	46	45	..	33	36	36
Tunisia	81	44	42	65	66	..	101	94	93
Turkey	107	86	84	69	72	..	70	72	77
Uganda	54	60	73	114	117	..	..	..	..
Ukraine	36	37	35	48	44	..	75	95	78
United Arab Emirates	18	22	34	12	11	..	24	20	23
United Kingdom	46	40	29	3	3	..	16	21	16
United Republic of Tanzania	60	63	65	121	120	..	114	97	99
United States	120	114	115	1	1	..	36	39	40
Uruguay	52	48	50	89	89	..	72	83	95
Uzbekistan	116	117	124	95	98	..	..	..	..
Venezuela, Bolivarian Rep. of	94	127	132	66	62	..	40	47	51
Viet Nam	55	62	43	79	80	..	90	86	84
Yemen	139	96	93	99	106	..	61	66	73
Zambia	28	39	38	131	129	..	..	..	..
Zimbabwe	111	92	59	141	141	..	105	101	86

Source: UNCTAD.

Note: The table covers 141 economies. The potential index is based on 12 economic and policy variables.

^a Three-year moving averages, using data for the three previous years, including the year in question.

Annex table A.I.11. List of major sovereign wealth funds, 2007^a

Economy	Fund	Assets under management (\$ billion) ^a	Year established
United Arab Emirates	Abu Dhabi Investment Authority (ADIA)	500–875	1976
Norway	Government Pension Fund-Global (GPF-G)	373.0	1990
Singapore	Government of Singapore Investment Corporation (GIC)	330.0	1981
Saudi Arabia	Saudi Arabia Monetary Authority foreign holdings	327.0	1952
Netherlands	Stichting Pensioenfond ABP	316.0	1922
China	State Administration of Foreign Exchange (SAFE)	311.6	1997
Kuwait	Kuwait Investment Authority (KIA)	250.0	1953
United States	California Public Employees' Retirement System	237.0	1932
China	China Investment Corporation (CIC)	200.0	2007
Hong Kong, China	Hong Kong Monetary Authority (HKMA)-Exchange Fund	163.0	1993
Singapore	Temasek Holdings	160.0	1974
Canada	Caisse de dépôt et placement de Québec	157.0	1965
Russian Federation	Oil and Gas Fund (OGF)	157.0	2004
China	Central Huijin Investment Corporation	100.0	2003
United Arab Emirates	Investment Corporation of Dubai	82.0	2006
Australia	Queensland Investment Corporation (QIC)	65.0	1992
Australia	Australian Government Future Fund (AGFF)	61.0	2006
Qatar	Qatar Investment Authority (QIA)	60.0	2005
France	Pension Reserve Fund	51.0	2001
Libyan Arab Jamahiriya	Reserve Fund	50.0	1981
Algeria	Revenue Regulation Fund	47.0	2000
United States	Alaska Permanent Fund (APF)	37.0	1976
Australia	Victorian Funds Management Corporation (VFMC)	36.0	1994
Brunei Darussalam	Brunei Investment Agency (BIA)	35.0	1983
Ireland	National Pensions Reserve Fund (NPRF)	30.8	2001
Korea, Republic of	Korea Investment Corporation (KIC)	30.0	2005
Malaysia	Khazanah Nasional Fund BHD (KNF)	26.0	1993
Saudi Arabia	Kingdom Holding Company	25.0	1980
Kazakhstan	Kazakhstan National Fund (NFRK)	23.0	2000
Venezuela, Bolivarian Rep. of	National Development Fund (FONDEN)	20.8	2005
Canada	Alberta Heritage Savings Trust Fund (AHSTF)	16.9	1976
United States	New Mexico State Investment Office Trust Funds	16.0	1958
Chile	Economic and Social Stabilization Fund (ESEF)	15.5	2006
Iran, Islamic Rep. of	Foreign Exchange Reserve Fund	15.0	1999
Taiwan Province of China	Taiwan National Stabilisation Fund (TNSF)	15.0	2000
New Zealand	New Zealand Superannuation Fund (NZSF)	14.0	2001
United Arab Emirates	Dubai International Capital (DIC)	13.0	2004
United Arab Emirates	International Petroleum Investment Company (IPIC)	12.0	1984
Nigeria	Excess Crude Account	11.0	2004
Saudi Arabia	Public investment Fund	10–15	1973
Iran, Islamic Republic of	Oil Stabilisation Fund	10.0	2000
United Arab Emirates	Mubadala Development Company	10.0	2002
Iraq	Development Fund for Iraq (DFI)	8.0	2003
Botswana	Pula Fund	6.9	1993
Oman	State General Reserve Fund (SGRF)	6.0	1980
United Arab Emirates	Istithmar	6.0	2003
China	China-Africa Development Fund	5.0	2007
United States	Permanent Wyoming Mineral Trust Fund (PWMTF)	3.7	1974
Azerbaijan	State Oil Fund (SOFAZ)	3.3	1999
United States	Alabama Trust Fund	3.1	1986
Bahrain	Mumtalakat Holding Company	2.6	2006
Viet Nam	State Capital Investment Corporation	2.1	2005
Chile	Chile Pension Reserve Fund (PRF)	2.0	2006
Colombia	Oil Stabilization Fund	2.0	1995
Mexico	Oil Income Stabilization Fund	2.0	2000
Timor-Leste	Timor-Leste Petroleum Fund	2.0	2005
Trinidad and Tobago	Heritage and Stabilization Fund	2.0	2007
United Arab Emirates	Ras Al Khaimah Investment Authority	1.2	2005
Venezuela, Bolivarian Rep. of	Investment Fund for Macroeconomic Stabilization (FIEM)	0.8	1998
Kiribati	Revenue Equalisation Reserve Fund (RERF)	0.6	1956
Gabon	Fund for Future Generations	0.5	1998
Uganda	Poverty Action Fund	0.4	1998
Mauritania	National Fund for Hydrocarbon Reserves	0.3	2006
Angola	Reserve Fund for Oil	0.2	2007
Sudan	Oil Revenue Stabilization Account	0.1	2002
Sao Tome and Principe	National Oil Account	0.0	2004
United Arab Emirates	Emirates Investment Authority	..	2007
United Arab Emirates	Dubai Intern. Financial Centre Investments (DIFC)	..	2006
World total		5 000 ^b	

Sources: Edwin Truman, Peterson Institute for International Economics, The rise of sovereign wealth funds: impacts on US foreign policy and economic interests, May 2008; JP Morgan Research, Sovereign wealth funds: a bottom-up primer, May 2008; Sovereign Wealth Fund Institute, May 2008; and *Global Insight*, "Sovereign wealth fund tracker, April 2008" (www.globalinsight.com).

^a As at end 2007 or latest year available.

^b Estimate.

Annex table A.I.12. Largest cross-border M&A deals by sovereign wealth funds ranked 21st–50th, ^a 1987–2007

Year	Value (\$ million)	Acquired company	Host economy	Industry of the acquired company	Acquiring company	Home economy	Percentage shares acquired
1990	528	BCCI Holdings(Luxembourg) SA(Abu Dhabi)	Luxembourg	Investment offices, nec	Investor group	United Arab Emirates	20
2005	525	30 Gresham Street	United Kingdom	Operators of apartment buildings	GIC Real Estate Pte Ltd	Singapore	100
1999	500	Hyundai Oil Refinery Co Ltd	Korea, Republic of	Crude petroleum and natural gas	International Petroleum Investment Co (IPIC)	United Arab Emirates	50
2006	490	Mafin Investment Group Holdings SA	Greece	Security brokers, dealers and flotation companies	Dubai Financial LLC	United Arab Emirates	32
2007	450	InterContinental Chicago	United States	Hotels and motels	GIC Real Estate Pte Ltd	Singapore	49
2007	411	SmartStream Technologies Ltd	United Kingdom	Prepackaged software	DIFC Investments LLC	United Arab Emirates	100
2000	400	Seoul Finance Centre(Yoojin Tourist Co Ltd)	Korea, Republic of	Operators of non-residential buildings	GIC Real Estate Pte Ltd	Singapore	100
2006	400	E Sun Financial Holding Co Ltd	Taiwan Province of China	Banks	Temasek Holdings(Pte)Ltd	Singapore	15
2007	391	Pan-United Marine Ltd	Singapore	Shipbuilding and repair	Dubai Drydocks World LLC	United Arab Emirates	92
2007	386	Undisclosed Business Parks(2)	United Kingdom	Real estate agents and managers	Isithmar PJSC	United Arab Emirates	100
2006	384	Hines-Office Properties(2)	Germany	Operators of non-residential buildings	GIC Real Estate Pte Ltd	Singapore	100
2005	337	Lippo Bank Tbk PT	Indonesia	Banks	Khazanah Nasional Bhd	Malaysia	52
2007	330	Interconnector(UK)Ltd	United Kingdom	Pipelines, nec	Caisse de Depot & Placement du Quebec	Canada	25
2007	329	ABC Learning Centres Ltd	Australia	Schools and educational services, nec	Temasek Holdings(Pte)Ltd	Singapore	12
1995	325	Plaza Hotel,New York, NY	United States	Hotels and motels	Investor group	Saudi Arabia	100
2005	310	Agrolinz Melamine GmbH	Austria	Plastic materials and synthetic resins	International Petroleum Investment Co (IPIC)	United Arab Emirates	50
1992	306	Metropole Hotels(Holdings)Ltd (Lonrho PLC)	United Kingdom	Hotels and motels	Libyan Arab Foreign Investment Co	Libyan Arab Jamahiriya	33
2006	300	Loehmanns Holdings Inc	United States	Women's clothing stores	Isithmar PJSC	United Arab Emirates	100
2006	289	Inchcape Shipping Services	United Kingdom	Sea freight transport	Isithmar PJSC	United Arab Emirates	100
2006	285	W Hotel Union Square, New York, New York	United States	Hotels and motels	Isithmar PJSC	United Arab Emirates	100
2006	280	Maltacom PLC	Malta	Telephone communications, except radiotelephone	Investor group	United Arab Emirates	60
2006	276	Bank Islam Malaysia Bhd	Malaysia	Banks	Investor group	United Arab Emirates	49
1998	266	Thai Farmers Bank PCL	Thailand	Banks	Government of Singapore Investment Corp Pte Ltd	Singapore	15
1994	257	OMV AG	Austria	Crude petroleum and natural gas	International Petroleum Investment Co (IPIC)	United Arab Emirates	13
2004	251	Novem Car Interior Design GmbH	Germany	Motor vehicles and passenger car bodies	Alpinvest Holding NV	Netherlands	100
2006	237	International Hotel Investments PLC	Malta	Hotels and motels	Isithmar Hotels FZE	United Arab Emirates	33
2006	230	Hyundai Oilbank Co Ltd	Korea, Republic of	Crude petroleum and natural gas	International Petroleum Investment Co (IPIC)	United Arab Emirates	20
2004	228	Kerzner International Ltd	Bahamas	Hotels and motels	Isithmar PJSC	United Arab Emirates	10
1994	219	No 1 OConnell Street,Sydney	Australia	Operators of nonresidential buildings	Abu Dhabi Investment Authority	United Arab Emirates	100
2000	177	Grand Millennium Plaza(New World Development Hong Kong, China Co Ltd)	Hong Kong, China	Operators of nonresidential buildings	GIC Real Estate Pte Ltd	Singapore	100

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Note: Deals where the host and home economy is the same are considered cross-border, as the ultimate host or home economy is different.

^a For the largest 20, see table I.9.

Annex table A.I.13. Selected cross-border M&A deals by sovereign wealth funds, by target region/economy, 1987-2007
(Value in millions of dollars)

Target region/economy	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
World	-	124	-	528	13	306	518	581	1 690	28	466	571	660	762	190	769	264	589	9 236	11 325	10 345	38 988
Developed economies	-	124	-	528	13	306	341	569	1 559	28	271	200	129	25	145	531	212	361	6 391	7 727	8 988	28 448
Europe	-	124	-	528	13	306	241	257	1 230	28	171	200	74	74	47	333	130	251	5 169	5 927	5 809	20 597
European Union	-	124	-	528	-	306	241	257	1 181	-	171	-	74	-	47	333	130	251	5 169	5 927	5 809	20 548
Austria	-	-	-	-	-	-	257	-	-	-	-	-	-	-	-	-	-	-	310	-	-	567
Belgium	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	130	-	-	-	-	130
Denmark	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 691	-	-	1 691
France	-	-	-	-	-	-	-	-	-	-	171	-	-	-	47	-	-	251	-	496	1 160	1 954
Germany	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	490	-	490
Greece	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1 135
Italy	-	-	-	-	-	-	-	1 135	-	-	-	-	-	-	-	-	-	-	-	-	-	1 135
Luxembourg	-	-	-	528	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	528
Malta	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	517	-	517
Netherlands	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	333	-	-	554	-	-	886
Norway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	124
Spain	-	124	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	124
Sweden	-	-	-	-	-	-	-	-	46	-	-	-	-	-	-	-	-	-	-	-	-	169
United Kingdom	-	-	-	-	-	306	241	-	46	-	-	-	74	-	-	-	-	-	2 614	4 424	4 480	12 185
Other developed Europe	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	-	-	-	49
Switzerland	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	1 222	1 800	1 392	5 274
North America	-	-	-	-	13	-	100	92	329	-	100	200	-	25	-	-	-	-	1 222	1 800	1 392	5 169
Canada	-	-	-	-	13	-	100	92	329	-	100	200	-	25	-	-	-	-	1 222	1 800	1 392	5 169
United States	-	-	-	-	-	-	-	219	-	28	-	-	55	-	98	198	82	110	-	-	1 787	2 577
Other developed countries	-	-	-	-	-	-	-	219	-	28	-	-	55	-	98	198	82	110	-	-	925	1 715
Australia	-	-	-	-	-	-	-	219	-	28	-	-	55	-	98	198	82	110	-	-	862	862
Japan	-	-	-	-	-	-	177	13	131	-	195	371	531	737	45	238	52	228	2 846	3 598	1 357	10 519
Developing economies	-	-	-	-	-	-	177	5	-	-	-	17	-	-	45	-	-	-	-	2 313	-	2 557
Africa	-	-	-	-	-	-	177	5	-	-	-	-	-	-	-	-	-	-	-	-	-	177
Egypt	-	-	-	-	-	-	177	-	-	-	-	-	-	-	-	-	-	-	-	-	-	177
Morocco	-	-	-	-	-	-	-	5	-	-	-	5	-	-	-	-	-	-	-	-	-	10
Nigeria	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	12
Tunisia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	45	-	-	-	-	2 313	-	2 358
Latin America and the Caribbean	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	228	-	2 313	-	2 358
Bahamas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	228	-	-	-	228
Mexico	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18	-	-	-	-	-	18
Asia	-	-	-	-	-	-	8	131	-	-	195	354	531	737	-	221	52	-	2 846	1 286	1 357	7 717
West Asia	-	-	-	-	-	-	8	131	-	-	195	354	531	737	-	221	52	-	2 846	1 286	1 357	7 717
Bahrain	-	-	-	-	-	-	-	-	-	-	163	19	-	13	-	-	-	-	-	143	749	1 087
Jordan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	128
Lebanon	-	-	-	-	-	-	-	-	-	-	163	-	-	-	-	-	-	-	-	112	-	112
Oman	-	-	-	-	-	-	-	-	-	-	-	19	-	10	-	-	-	-	-	-	-	173
Saudi Arabia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	621	640
United Arab Emirates	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	3
South, East and South-East Asia	-	-	-	-	-	-	8	131	-	-	32	335	531	724	-	221	52	-	2 846	1 142	607	6 630
China	-	-	-	-	-	-	8	6	-	-	22	-	-	177	-	20	-	-	-	90	-	146
Hong Kong, China	-	-	-	-	-	-	-	9	-	-	10	-	-	-	-	-	-	-	-	-	-	146
India	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146
Indonesia	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	146
Korea, Republic of	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	337	-	-	392
Malaysia	-	-	-	-	-	-	-	-	-	-	-	-	500	445	-	-	-	-	-	230	-	1 175
Myanmar	-	-	-	-	-	-	-	-	2	-	-	-	-	47	-	-	-	-	-	276	-	376
Pakistan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Singapore	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	201	-	-	-	-	-	363
Taiwan Province of China	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	150	-	-	391
Thailand	-	-	-	-	-	-	-	-	114	-	-	335	31	-	-	-	-	-	2 359	400	-	2 759
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	34
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	514

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Annex table A.I.14. Selected cross-border M&A deals by sovereign wealth funds, by industry of the target country, 1987–2007
(Number of deals and value in millions of dollars)

Target sector/industry	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Total
	(a) Number of deals																					
Total	1	2	1	2	2	1	5	11	10	2	12	10	6	11	7	7	5	4	20	33	30	182
Primary	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	8
Agriculture, hunting, forestry and fisheries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Mining, quarrying and petroleum	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	7
Manufacturing	-	-	1	-	-	1	3	2	2	1	1	1	2	1	2	3	1	1	6	3	5	32
Food, beverages and tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Textiles, clothing and leather	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Wood and wood products	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Publishing and printing	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Chemicals and chemical products	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	-	-	3	-	-	1
Rubber and plastic products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Non-metallic mineral products	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1
Metals and metal products	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Electrical and electronic equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
Motor vehicles and other transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	2	7
Other manufacturing	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
Services	1	1	-	2	2	1	4	7	8	2	10	10	3	10	5	4	4	3	13	28	24	142
Electricity, gas and water	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Construction	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	1	1	3
Trade	-	1	-	-	-	-	1	-	1	-	-	-	-	1	-	1	-	-	3	1	3	12
Hotels and restaurants	-	-	-	-	-	1	-	3	2	1	4	3	-	-	1	2	1	1	1	4	2	26
Transport, storage and communications	-	-	-	-	1	-	1	-	-	-	1	-	-	-	-	2	-	-	3	5	3	16
Finance	1	-	-	1	-	2	2	3	3	1	2	4	-	2	-	1	1	-	2	8	5	35
Business services	-	-	-	-	1	-	1	-	-	-	2	2	3	6	2	-	-	2	2	9	8	39
Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Health and social services	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1
Community, social and personal services	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Other services	-	-	-	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	1	-	-	5
	(b) Value in millions of dollars																					
Total	124	13	528	13	306	518	581	1 690	28	466	571	660	762	190	769	264	589	9 236	11 325	10 345	38 968	
Primary	124	-	-	-	-	-	257	-	-	-	-	500	-	-	-	-	-	-	-	342	-	1 224
Mining, quarrying and petroleum	124	-	-	-	-	-	257	-	-	-	-	500	-	-	-	-	-	-	-	342	-	1 224
Manufacturing	-	-	-	-	-	241	8	10	-	-	-	-	10	47	350	130	251	4 360	1 256	2 569	9 233	
Food, beverages and tobacco	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10
Textiles, clothing and leather	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	176
Wood and wood products	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	4 828
Chemicals and chemical products	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	333	130	-	4 360	-	-	1 160
Rubber and plastic products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	65
Metals and metal products	-	-	-	-	-	-	-	-	-	-	-	-	-	-	47	18	-	-	-	-	-	260
Electrical and electronic equipment	-	-	-	-	-	-	241	5	-	-	-	-	-	-	-	-	-	-	-	15	-	1 160
Motor vehicles and other transport equipment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	251	-	1 241	1 239	2 731
Other manufacturing	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Services	-	-	528	13	306	277	316	1 679	28	466	571	160	752	143	419	134	338	4 876	9 728	7 776	28 511	
Electricity, gas and water	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	150	-	-	150
Construction	-	-	-	-	-	-	-	114	-	10	-	-	-	-	-	-	-	-	-	-	-	19
Trade	-	-	-	-	-	100	-	114	-	-	-	-	20	-	-	-	-	-	554	300	1 805	2 892
Hotels and restaurants	-	-	-	-	306	-	97	371	-	171	5	198	82	45	198	82	228	-	1 792	450	3 746	8 566
Transport, storage and communications	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	52	-	-	1 222	2 923	460	4 856
Finance	-	-	528	-	-	177	-	51	28	163	366	-	80	-	201	-	-	-	337	1 272	1 703	4 906
Business services	-	-	-	-	13	-	219	-	-	122	-	160	672	98	-	-	-	110	1 119	3 441	3 029	8 983
Education	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	329
Community, social and personal service activities	-	-	-	-	-	-	-	1 135	-	-	-	-	-	-	-	-	-	-	1 495	-	-	2 630

Source: UNCTAD, cross-border M&A database (www.unctad.org/fdistatistics).

Annex table A.I.15. The world's top 100 non-financial TNCs, ranked by foreign assets, 2006^a
(Millions of dollars and number of employees)

Ranking by: Foreign assets	TNI ^b	II ^c	Corporation	Home economy	Industry ^d	Assets		Sales		Employment		No. of affiliates			
						Foreign	Total	Foreign	Total	Foreign	Total	Foreign	Total	TNI ^b (Per cent)	Foreign	Total	II^{e}
1	71	54	General Electric	United States	Electrical & electronic equipment	442 278	697 239	74 285	163 391	164 000	319 000	53	785	1 117	70
2	14	68	British Petroleum Company Plc	United Kingdom	Petroleum expl./ref./distr.	170 326	217 601	2 158 79	270 602	80 300	97 100	80	337	529	64
3	87	93	Toyota Motor Corporation	Japan	Motor vehicles	164 627	273 853	78 529	205 918	113 967	299 394	45	169	419	40
4	34	79	Royal Dutch/Shell Group	United Kingdom, Netherlands	Petroleum expl./ref./distr.	161 122*	235 276	182 538*	318 845	90 000	108 000	70	518	926	56
5	40	35	Exxonmobil Corporation	United States	Petroleum expl./ref./distr.	154 993	219 015	252 680	365 467	51 723	82 100	68	278	346	80
6	78	64	Ford Motor Company	United States	Motor vehicles	131 062	278 554	78 968	160 123	155 000 ^f	283 000	50	162	247	66
7	7	99	Vodafone Group Plc	United Kingdom	Telecommunications	126 190	144 366	32 641	39 021	53 138	63 394	85	30	130	23
8	26	51	Total	France	Petroleum expl./ref./distr.	120 645	138 579	146 672	192 952	57 239	95 070	74	429	598	72
9	96	36	Electricite De France	France	Electricity, gas and water	111 916	235 857	33 879	73 933	17 185 ^g	155 968	35	199	249	80
10	92	18	Wal-Mart Stores	United States	Retail	110 199	151 193	77 116	344 992	540 000	1 910 000	41	146	163	90
11	37	34	Telefonica SA	Spain	Telecommunications	101 891	143 530	41 093	66 367	167 881	224 939	69	165	205	80
12	77	88	E.ON	Germany	Electricity, gas and water	94 304	167 565	32 154	85 007	46 598	80 612	51	279	590	47
13	86	82	Deutsche Telekom AG	Germany	Telecommunications	93 488	171 421	36 240	76 963	88 808	248 800	46	143	263	54
14	58	65	Volkswagen Group	Germany	Motor vehicles	91 823	179 906	95 761	131 571	155 935	324 875	57	178	272	65
15	73	57	France Telecom	France	Telecommunications	90 871	135 876	30 448	64 863	82 148	191 036	52	145	211	69
16	90	63	ConocoPhillips	United States	Petroleum expl./ref./distr.	89 528	164 781	55 781	183 650	17 188 ^h	38 400	43	118	179	66
17	56	89	Chevron Corporation	United States	Petroleum expl./ref./distr.	85 735	132 628	111 608	204 892	33 700	62 500	58	97	226	43
18	11	75	Honda Motor Co Ltd	Japan	Motor vehicles	76 264	101 190	77 605	95 333	148 544	167 231	82	141	243	58
19	36	62	Suez	France	Electricity, gas and water	75 151	96 714	42 002	55 563	76 943	139 814	69	586	884	66
20	45	48	Siemens AG	Germany	Electrical & electronic equipment	74 585	119 812	74 858	109 553	314 000	475 000	66	919	1 224	75
21	10	11	Hutchison Whampoa Limited	Hong Kong, China	Diversified	70 679	87 146	28 619	34 428	182 149 ^h	220 000	82	115	125	92
22	84	85	RWE Group	Germany	Electricity, gas and water	68 202	123 080	22 142	55 521	30 752	68 534	47	221	430	51
23	9	7	Nestlé SA	Switzerland	Food & beverages	66 677*	83 426	57 234*	78 528	257 434 ^{g,h}	265 000	83	467	502	93
24	62	38	BMW AG	Germany	Motor vehicles	66 053	104 118	48 172	61 472	26 575	106 575	56	138	174	79
25	51	33	Procter & Gamble	United States	Diversified	64 487	138 014	44 530	76 476	101 220 ^h	138 000	59	369	458	81
26	89	71	General Motors	United States	Motor vehicles	63 538	186 192	78 308	207 349	167 342	280 000	44	115	186	62
27	48	97	Nissan Motor Co Ltd	Japan	Motor vehicles	61 398	104 264	68 703	90 014	93 935	186 336	62	52	166	31
28	93	29	Deutsche Post AG	Germany	Transport and storage	60 938	286 709	44 807	75 957	137 251*	463 350	37	698	839	83
29	72	40	Eni Group	Italy	Petroleum expl./ref./distr.	58 113	116 307	62 429	108 023	36 691	73 572	53	157	199	79
30	50	28	Sanofi-aventis	France	Pharmaceuticals	55 342*	102 414	20 266*	35 595	71 325	100 289	61	179	215	83
31	98	70	DaimlerChrysler AG	Germany, United States	Motor vehicles	55 214	250 259	82 130	190 176	98 976	360 385	31	275	440	63
32	75	49	Pfizer Inc	United States	Pharmaceuticals	53 765	114 837	22 549	48 371	59 818 ^h	98 000	51	75	100	75
33	15	20	Roche Group	Switzerland	Pharmaceuticals	52 178	60 980	33 155	33 531	41 554*	74 372	80	184	206	89
34	44	72	Mitsui & Co Ltd	Japan	Wholesale trade	50 678	82 499	17 557	41 967	39 792 ⁱ	41 761	66	273	444	61
35	95	77	Mitsubishi Motors Corporation	Japan	Motor vehicles	48 328	96 559	37 270	176 410	19 048 ^h	55 867	35	24	42	57
36	59	21	IBM	United States	Electrical & electronic equipment	47 392	103 234	55 507	91 424	231 248	355 766	57	330	373	88
37	2	15	Xstrata PLC	United Kingdom	Mining & quarrying	45 284	47 216	15 038	17 632	26 506*	92 109	92	109	121	90
38	49	39	Fiat Spa	Italy	Motor vehicles	44 715	76 785	46 394	65 026	96 261	172 012	62	398	502	79
39	31	10	Novartis	Switzerland	Pharmaceuticals	42 922	68 008	35 630	36 031	52 830*	100 735	71	294	318	92
40	52	47	Sony Corporation	Japan	Electrical & electronic equipment	40 925	98 498	52 045	71 331	103 900	163 000	59	256	340	75

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Annex table A.I.15. The world's top 100 non-financial TNCs, ranked by foreign assets, 2006^a (continued)
(Millions of dollars and number of employees)

Ranking by:	Foreign assets	TNI ^b	II ^c	Corporation	Home economy	Industry ^d	Assets			Sales			Employment			No. of affiliates			
							Foreign	Total	Foreign	Foreign	Total	Foreign	Total	Foreign	Total	Foreign	Total	Foreign	Total
							II ^c	TNI ^b	II ^c	TNI ^b	II ^c	TNI ^b	II ^c	TNI ^b	II ^c	TNI ^b	II ^c	TNI ^b	II ^c
41	29	26	Compagnie De Saint-Gobain SA	France	Non-metallic mineral products	39 729	54 887	37 224	52 184	151 974	206 940	72	828	984	84				
42	60	41	BASF AG	Germany	Chemicals	38 705	59 648	37 194	66 002	47 951	95 247	57	384	493	78				
43	66	84	Repsol YPF SA	Spain	Petroleum expl./ref./distr.	38 261	59 530	32 651	64 427	18 409	36 931	55	71	137	52				
44	54	16	Hewlett-Packard	United States	Electrical & electronic equipment	37 664	81 981	59 414	91 658	101 915	156 000	59	235	262	90				
45	83	2	Eads	Netherlands	Aircraft and parts	36 868	95 005	38 937	49 472	29 349	116 805	48	286	296	97				
46	8	44	Philips Electronics	Netherlands	Electrical & electronic equipment	36 680	50 701	32 478	33 843	104 222	121 732	85	357	467	76				
47	76	50	Renault SA	France	Motor vehicles	35 935	90 565	34 268	52 099	60 836	128 893	51	149	201	74				
48	3	12	Linde AG	Germany	Industrial trucks, tractors, trailers and stackers	35 125	36 871	13 322	15 605	51 670	58 835	89	447	492	91				
49	13	24	Lafarge SA	France	Non-metallic mineral products	34 793	39 265	18 047	21 213	57 995	82 734	81	347	399	87				
50	19	61	Unilever	United Kingdom, Netherlands	Diversified	34 433 ^e	48 824	45 078	49 733	135 000 ^e	179 000	79	248	374	66				
51	61	25	Altria Group Inc	United States	Tobacco	34 090	104 270	58 327	101 407	140 958 ^h	175 000	57	104	121	86				
52	53	74	Veolia Environnement SA	France	Water supply	32 404	52 843	19 091	35 905	185 881	298 498	59	608	1 040	58				
53	80	56	Johnson & Johnson	United States	Pharmaceuticals	32 130	70 556	23 549	53 324	71 756 ^h	122 200	49	195	282	69				
54	81	53	Endesa	Spain	Electric Utilities	31 389 ^a	71 234	13 160 ^a	25 819	14 092 ^a	26 758	49	65	91	71				
55	35	94	Anglo American	United Kingdom	Mining & quarrying	30 976 ^e	46 483	21 894 ^e	33 072	123 000 ^e	162 000	70	185	474	39				
56	100	100	Petronas - Petrolim Nasional Bhd	Malaysia	Petroleum expl./ref./distr.	30 668	85 201	14 937	50 984	3 965	33 439	26	4	78	5				
57	47	19	Mittal Steel Company NV	Netherlands	Metal and metal products	30 438 ^e	112 166	46 985	58 870	248 986 ^e	316 224	62	76	85	89				
58	46	80	BHP Billiton Group	Australia	Mining & quarrying	28 817	58 168	35 187	39 498	18 964	33 861	65	104	187	56				
59	79	86	Vivendi Universal	France	Diversified	28 533	56 694	9 625	25 146	21 451	34 694	50	71	142	50				
60	64	91	Carrefour SA	France	Retail	27 985	62 601	51 047	97 731	315 781	456 295	55	158	386	41				
61	17	31	Inbev SA	Netherlands	Consumer goods/brewers	27 688	34 566	12 122	16 696	73 495	85 617	80	97	120	81				
62	82	17	Samsung Electronics Co., Ltd.	Republic of Korea	Electrical & electronic equipment	27 011	87 111	71 590	91 856	29 472	85 813	48	78	87	90				
63	28	96	BAE Systems Plc	United Kingdom	Transport equipment	26 195	35 624	20 171	25 327	51 563 ^a	79 000	73	123	333	37				
64	30	59	Christian Dior SA	France	Textiles	26 167	43 178	17 214	20 093	47 023	66 903	72	32	47	68				
65	65	45	Bayer AG	Germany	Pharmaceuticals/chemicals	26 100	73 609	30 650	36 327	48 200 ^e	106 000	55	273	359	76				
66	24	30	Volvo AB	Sweden	Motor vehicles	25 822	37 647	33 210	35 081	55 360	83 190	77	279	341	82				
67	6	1	Liberty Global Inc	United States	Telecommunications	25 479	25 569	6 349 ^m	6 488	12 068 ^h	20 500	85	128	132	97				
68	5	67	WPP Group Plc	United Kingdom	Business services	25 061	28 849	9 295	10 870	69 202	77 686	87	932	1 434	65				
69	27	13	SAB Miller	United Kingdom	Consumer goods/brewers	24 504 ^e	28 736	14 247 ^e	18 620	40 555 ^e	66 949	74	146	161	91				
70	39	23	Holcim AG	Switzerland	Non-metallic mineral products	24 419 ^e	36 632	12 268 ^e	19 117	66 777 ^e	88 783	69	131	149	88				
71	20	4	Cemex S.A.	Mexico	Non-metallic mineral products	24 411	29 749	14 595	18 114	39 505	54 635	78	493	519	95				
72	97	87	Hitachi Ltd	Japan	Electrical & electronic equipment	23 905	89 653	27 840	88 117	122 196	349 996	31	382	796	48				
73	91	78	Marubeni Corporation	Japan	Wholesale trade	23 788	40 969	8 876	31 461	12 188 ⁿ	28 261 ^o	43	202	354	57				
74	21	32	Coca-Cola Company	United States	Beverages	23 787 ⁱ	29 963	17 426	24 088	58 800	71 000	78	113	140	81				
75	63	95	Metro AG	Germany	Retail	23 540	42 339	41 971	75 125	133 152	243 139	55	299	798	37				
76	85	98	National Grid Transco	United Kingdom	Energy	23 526	55 730	7 908	15 998	8 761	18 776	46	48	203	24				
77	4	14	Pernod Ricard SA	France	Beverages	23 307	25 645	7 039	8 083	14 808	17 684	87	317	350	91				
78	38	37	TeliaSonera AB	Sweden	Telecommunications	23 152	29 047	7 439	12 342	18 970	28 528	69	128	161	80				
79	16	22	CRH Plc	Ireland	Lumber and other building materials dealers	22 880	24 160	21 937	23 506	41 214 ^e	79 560	80	514	583	88				
80	12	8	Alcan Inc.	Canada	Metals and metal products	22 017	28 939	20 410	23 641	54 000	65 000	82	266	286	93				

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Annex table A.I.15. The world's top 100 non-financial TNCs, ranked by foreign assets, 2006^a (concluded)
(Millions of dollars and number of employees)

Ranking by:	Foreign assets	TNI ^b	II ^c	Corporation	Home economy	Industry ^d	Assets		Sales		Employment		No. of affiliates		II ^c		
							Foreign	Total	Foreign	Total	Foreign	Total	Foreign	Total		TNI ^b	Total
							(Per cent)	(Per cent)	(Per cent)	(Per cent)	(Per cent)	(Per cent)	(Per cent)	(Per cent)			
81	68	27	United Technologies Corporation	United States	Transport equipment	21 877	47 141	24 121	47 829	141 570	214 500	54	576	691	83		
82	74	66	Dow Chemical Company	United States	Chemicals	20 651	45 581	30 952	49 124	20 290 ^f	42 578	52	133	204	65		
83	22	42	AES Corporation	United States	Electricity, gas and water	20 522	31 163	9 623	12 299	28 693 ^g	32 000	78	161	207	78		
84	69	46	Glaxosmithkline Plc	United Kingdom	Pharmaceuticals	20 194 ^h	50 163	28 620 ^h	42 732	56 937 ^h	102 695	54	241	320	75		
85	33	92	Diageo Plc	United Kingdom	Beverages	20 081	27 397	15 542	18 247	11 487	22 520	70	44	108	41		
86	43	43	British American Tobacco Plc	United Kingdom	Tobacco	19 871 ^h	34 896	11 125 ^h	17 961	78 478 ^h	97 431	66	220	284	77		
87	70	73	Alcoa	United States	Metal and metal products	19 790	37 183	13 229	30 379	79 600	123 000	54	121	203	60		
88	42	76	Bertelsmann	Germany	Retail	19 779	29 630	16 795	24 209	62 796	97 132	67	384	672	57		
89	67	69	Thyssenkrupp AG	Germany	Metal and metal products	19 677	47 056	39 252	59 121	103 534	187 586	54	428	679	63		
90	99	60	Hyundai Motor Company	Republic of Korea	Motor vehicles	19 581	76 064	30 596	68 468	5 093 ^g	54 711	27	19	28	68		
91	32	81	McDonald's Corporation	United States	Food & beverages	19 546	29 024	14 122	21 586	362 700	465 000	70	74	136	54		
92	1	58	Barrick Gold Corp.	Canada	Gold mining	19 524	21 373	5 468	5 636	15 900	17 000	94	28	41	68		
93	25	9	Nokia	Finland	Telecommunications	19 385	29 787	51 103	51 588	41 233	65 324	76	88	95	93		
94	57	6	Thomson Corporation	Canada	Media	19 184	20 132	1 283	6 641	18 338 ⁿ	32 000	57	141	150	94		
95	55	55	Pinault-Printemps Redoute SA	France	Wholesale trade	19 144	29 487	12 422	22 495	41 894	78 453	58	246	355	69		
96	88	83	Matsushita Electric Industrial Co., Ltd.	Japan	Electrical & electronic equipment	19 043	66 389	38 622	78 317	183 227	328 645	45	253	468	54		
97	18	52	L'Air Liquide Groupe	France	Chemicals	18 895	21 461	10 813	13 736	26 199	36 900	79	249	348	72		
98	23	5	Schlumberger Ltd	United States	Other services	18 688	22 832	13 959	19 230	54 054 ⁿ	70 000	77	127	135	94		
99	41	3	Singtel Ltd.	Singapore	Telecommunications	18 678	21 288	5 977	8 575	8 606	19 000	68	103	108	95		
100	94	90	Statoil Asa	Norway	Petroleum expl./ref./distr.	18 603	50 394	16 553	66 294	11 448	24 576	36	62	147	42		

Source: UNCTAD/Erasmus University database.

^aAll data are based on the companies' annual reports unless otherwise stated. Data on affiliates is based on Dun and Bradstreet's *Who owns Whom* database.

^bTNI, the Transnationality Index, is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

^cII, the Internationalization Index is calculated as the number of foreign affiliates divided by the number of all affiliates (Note: Affiliates counted in this table refer to only majority-owned affiliates).

^dIndustry classification for companies follows the United States Standard Industrial Classification as used by the United States Securities and Exchange Commission (SEC).

^eData are for activities outside Europe.

^fData are for activities outside North America.

^gForeign employment data are calculated by applying the share of foreign employment in total employment of the previous year to total employment of 2006.

^hForeign employment data are calculated by applying the average of the shares of foreign employment in total employment of all companies in the same industry (omitting the extremes) to total employment.

ⁱData are for activities outside Asia.

^jData are for activities outside Western Europe.

^kData are for activities outside Spain and Portugal.

^lData are for activities outside Other Europe.

^mData are for activities outside Other Americas.

ⁿForeign employment data are calculated by applying the share of both foreign assets in total assets and foreign sales in total sales to total employment.

^oTotal employment data are calculated by applying the annual percentage increase of non-consolidated total employment data to the consolidated total employment data from the previous year.

Note: The list covers non-financial TNCs only. In some companies, foreign investors may hold a minority share of more than 10 per cent.

Annex table A.I.16. The top 100 non-financial TNCs from developing countries, ranked by foreign assets, 2006^a
(Millions of dollars and number of employees)

Ranking by: Foreign assets	TNI ^b	II ^c	Corporation	Assets				Sales				Employment				No. of affiliates			
				Home economy		Industry ^d		Foreign ^e		Total		Foreign ^f		Total		Foreign		Total	
				Foreign ^g	Total	Foreign ^h	Total	Foreign ⁱ	Total	Foreign ^j	Total	Foreign ^k	Total	Foreign ^l	Total	Foreign ^m	Total	Foreign ⁿ	Total
1	18	9	Hutchison Whampoa Limited	Hong Kong, China	70 679	87 146	28 619	34 428	182 149 ^o	220 000	82.3	115	125	92.0					
2	88	94	Petronas - Petrolim Nasional Bhd	Malaysia	30 668 ^o	85 201	14 937	50 984	3 965	33 439	25.7	4	78	5.1					
3	53	11	Samsung Electronics Co., Ltd.	Republic of Korea	27 011	87 111	71 590	91 856	29 472	85 813	47.8	78	87	89.7					
4	21	4	Cemex S.A.	Mexico	24 411	29 749	14 595	18 114	39 505	54 635	78.3	493	519	95.0					
5	86	32	Hyundai Motor Company	Republic of Korea	19 581	76 064	30 596	68 468	5 093 ^o	54 711	26.6	19	28	67.9					
6	33	3	Singtel Ltd.	Singapore	18 678	21 288	5 977	8 575	8 606	19 000	67.6	103	108	95.4					
7	92	86	CITIC Group ⁱ	China	17 623	117 355	2 482	10 113	18 305 ^o	107 340	18.9	12	112	10.7					
8	65	10	Formosa Plastic Group ^k	Taiwan Province of China	16 754	75 760	13 002	50 445	67 129	89 736	40.9	11	12	91.7					
9	28	18	Jardine Matheson Holdings Ltd	Hong Kong, China	16 704	20 378	12 527	16 281	58 203	110 125	70.6	108	126	85.7					
10	57	74	LG Corp.	Republic of Korea	15 016	53 915	43 902	70 613	36 053 ^o	70 000	47.2	3	12	25.0					
11	73	66	Companhia Vale do Rio Doce	Brazil	14 974	60 954	37 063	46 746	3 982 ^o	52 646	37.1	17	52	32.7					
12	94	88	Petrobras S.A. - Petrobras	Brazil	10 454	98 680	17 845	72 347	7 414 ^o	62 266	15.7	7	74	9.5					
13	69	73	China Ocean Shipping (Group) Company ^j	China	10 397	18 711	8 777	15 737	4 432	69 549	39.2	245	947	25.9					
14	54	54	América Móvil	Mexico	8 701	29 473	9 617	21 526	27 506	39 876	47.7	16	33	48.5					
15	89	56	Petróleos De Venezuela ^l	Venezuela, Bolivarian Rep. of	8 534	60 305	32 773	63 736	5 373	49 180	25.5	30	65	46.2					
16	50	8	Mobile Telecommunications Company	Kuwait	7 968	12 027	3 373	4 185	975	12 700	51.5	37	40	92.5					
17	41	85	Capitand Limited	Singapore	7 781	13 463	1 461	2 053	16 261 ^o	32 876	59.5	25	233	10.7					
18	45	15	Hon Hai Precision Industries	Taiwan Province of China	7 606	19 223	16 801	40 507	322 372	382 000	55.1	82	94	87.2					
19	80	65	China State Construction Engineering Corporation ⁱ	China	6 998	15 986	4 483	18 544	25 000	119 000	29.7	23	70	32.9					
20	67	5	Kia Motors	Republic of Korea	6 767	18 655	11 525	21 316	10 377 ^o	33 005	40.6	15	16	93.8					
21	100	90	China National Petroleum Corporation ^l	China	6 374 ^o	178 843	3 036	114 443	22 000 ^o	1 167 129	2.7	5	65	7.7					
22	72	82	New World Development Co., Ltd.	Hong Kong, China	6 147	18 535	1 430	2 995	16 949 ^o	54 000	37.4	8	63	12.7					
23	77	68	CLP Holdings	Hong Kong, China	6 096	15 965	1 283	4 951	1 827	6 087	31.4	3	10	30.0					
24	90	40	Telefonos De Mexico S.A. De C.V.	Mexico	5 790	24 265	4 295	16 084	16 704	76 394	24.1	44	73	60.3					
25	87	47	Sasol Limited	South Africa	5 709	14 749	2 920	8 875	2 205	27 933	26.5	14	26	53.8					
26	55	77	Sinochem Corp. ^j	China	5 326	8 898	19 374	23 594	220	21 048	47.7	31	161	19.3					
27	59	76	YTL Corp. Bernad	Malaysia	5 273	8 423	726	1 556	1 931 ^o	6 232	46.8	24	120	20.0					
28	37	25	Star Cruises ^m	Hong Kong, China	5 195	6 140	1 943	2 343	3 090	20 600	60.8	3	4	75.0					
29	66	7	Taiwan Semiconductor Manufacturing Co Ltd	Taiwan Province of China	5 106	18 023	10 875	18 023	7 474	22 246	40.8	13	14	92.9					
30	68	53	Quanta Computer Inc.	Taiwan Province of China	4 962	6 961	2 211	16 495	11 358 ^o	34 077	39.3	4	8	50.0					
31	32	30	Orient Overseas International Ltd ^m	Hong Kong, China	4 893	5 600	1 516	4 610	5 758	6 763	68.5	26	36	72.2					
32	96	93	Oil And Natural Gas Corporation	India	4 729	33 008	2 468	18 457	4 014 ^o	33 810	13.2	1	19	5.3					
33	17	48	Shangri-La Asia Limited	Hong Kong, China	4 707	5 076	783	1 002	15 871 ^o	20 500	82.8	2	4	50.0					
34	49	24	Hynix Semiconductor Inc	Republic of Korea	4 685	16 550	8 317	8 317	4 511 ^o	15 933	52.2	17	22	77.3					
35	43	12	Flextronics International Ltd. ^m	Singapore	4 507	12 341	7 277	18 854	113 299 ^o	116 000	57.6	133	149	89.3					
36	71	45	United Microelectronics Corporation	Taiwan Province of China	4 399	11 279	2 261	3 436	1 409 ^o	14 251	38.2	6	11	54.5					
37	24	58	China Resources Enterprises	Hong Kong, China	4 351	6 142	5 402	8 417	105 090	113 000	76.0	14	36	38.9					
38	11	6	China Merchants Holdings International	Hong Kong, China	4 181	4 513	511	561	3 601	3 881	92.1	14	15	93.3					
39	47	46	Metalurgica Gerdau S.A.	Brazil	4 070	6 779	2 858	5 399	14 537	31 565	53.0	21	39	53.8					
40	30	19	Sappi Limited	South Africa	3 822	5 517	3 633	4 941	9 879	15 199	69.3	42	50	84.0					

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Annex table A.I.16. The top 100 non-financial TNCs from developing countries, ranked by foreign assets, 2006^a (continued)
(Millions of dollars and number of employees)

Ranking by:	Foreign assets		Corporation		Home economy	Industry ^d	Assets		Sales		Employment		No. of affiliates			
	TNI ^b	II ^c	Corporation	II ^c			Foreign ^e	Total	Foreign ^f	Total	Foreign ^g	Total	Foreign ^h	Total	II ^c	
41	62	39	MTN Group Limited		South Africa	Telecommunications	3 633	13 905	3 582	7 402	7 488 ^g	14 067	42.6	16	26	61.5
42	8	49	Guangdong Investment Limited		Hong Kong, China	Diversified	3 611	3 881	755	779	3 641	3 880	94.6	10	20	50.0
43	83	84	Genting Berhad		Malaysia	Hotels	3 536	7 988	364	1 966	5 868 ^g	26 081	28.4	14	124	11.3
44	12	79	Galaxy Entertainment Group Limited		Hong Kong, China	Leisure	3 389	3 757	534	601	10 071	10 500	91.7	1	6	16.7
45	35	59	Orascom Construction		Egypt	Construction	3 329	4 992	1 941	2 874	24 354 ^g	40 000	65.0	1	3	33.3
46	51	2	Steinhorff International Holdings		South Africa	Domestic appliances	3 301	5 385	2 428	4 911	16 700	45 000	49.3	81	83	97.6
47	84	95	FEMSA-Fomento Economico Mexicano		Mexico	Food & beverages	3 105	13 362	2 806	11 579	33 187	97 770	27.1	8	185	4.3
48	27	29	Acer Inc.		Taiwan Province of China	Electrical & electronic equipment	3 062	5 783	9 396	11 789	5 034 ^g	5 964	72.4	58	79	73.4
49	58	43	Lenovo Group		China	Computer and related businesses	3 058	5 449	9 009	14 590	5 800	25 100	47.0	22	38	57.9
50	64	78	Keppel Corporation Limited		Singapore	Diversified	2 969	9 009	2 006	4 956	15 037	29 185	41.7	43	233	18.5
51	82	87	Gold Fields Limited		South Africa	Metal and metal products	2 954	7 951	1 082	2 825	6 272	58 726	88.3	5	15	33.3
52	14	60	Li & Fung Limited ⁿ		Hong Kong, China	Wholesale trade	2 775	2 836	8 536	8 748	6 744	9 705	28.7	1	10	10.0
53	91	89	Telekom Malaysia Berhad		Malaysia	Telecommunications	2 748	11 849	1 221	4 644	3 179 ^g	35 824	19.5	6	70	8.6
54	29	38	Inventec Company		Taiwan Province of China	Computer and related businesses	2 709	2 864	1 614	7 889	20 665 ^g	21 847	69.9	5	8	62.5
55	4	61	First Pacific Company Limited		Hong Kong, China	Electrical & electronic equipment	2 668	2 884	2 474	2 474	48 356 ^g	48 382	97.5	2	6	33.3
56	40	57	Fraser & Neave Limited		Singapore	Food & beverages	2 646	6 307	1 510	2 475	10 816 ^g	14 000	60.1	58	143	40.6
57	52		Enka Insaat ve Sanayi		Turkey	Construction	2 612	5 537	2 110	4 030	11 793 ^g	25 000	48.9	..	..	..
58	42	91	City Developments Limited ^m		Singapore	Hotels	2 571	7 175	902	1 660	10 351 ^g	12 281	58.1	4	54	7.4
59	63	31	Barroworld Ltd		South Africa	Diversified	2 552	5 115	2 556	6 125	9 083 ^g	25 816	42.3	66	95	69.5
60	81	67	San Miguel Corporation		Philippines	Food & beverages	2 444	7 115	1 891	5 081	4 249 ^g	27 349	29.0	6	19	31.6
61	60	72	Sime Darby Berhad		Malaysia	Diversified	2 245	4 966	3 941	5 709	7 317 ^g	28 770	46.6	71	253	28.1
62	13	63	Asia Food & Properties		Singapore	Food and beverages	2 202	2 370	448	458	34 767 ^g	45 000	89.3	1	3	33.3
63	26	37	Neptune Orient Lines Ltd. ^m		Singapore	Transport and storage	2 197	4 271	5 792	7 264	10 081 ^g	11 000	74.3	68	107	63.6
64	20	41	Technic Industries Company Limited		Hong Kong, China	Machinery and equipment	2 192	2 742	2 807	2 807	12 927 ^g	20 679	80.8	18	30	60.0
65	39	35	Qisda Corp. (Beng)		Taiwan Province of China	Computer and related businesses	2 162	3 707	5 113	6 971	18 026 ^g	36 965	60.1	12	18	66.7
66	23	33	Yue Yuen Industrial Holdings Limited ^m		Hong Kong, China	Textiles	2 138	3 379	2 560	3 658	279 768 ^g	280 000	77.7	4	6	66.7
67	34	50	TPV Technology Limited		Hong Kong, China	Wholesale trade	2 096	3 060	5 514	7 176	13 585 ^g	25 582	66.1	1	2	50.0
68	74		Maxis		Malaysia	Telecommunications	2 024	4 367	341	2 182	1 437 ^g	3 100	36.1	..	..	..
69	48	21	Noble Group Limited ^m		Hong Kong, China	Wholesale trade	2 015	3 824	8 825	13 765	529 ^g	1 265	85.9	26	33	78.8
70	16	42	Esprit Holdings Limited ^m		Hong Kong, China	Textile and leather	1 854	2 190	3 379	3 812	7 978 ^g	9 600	85.5	9	15	60.0
71	31		Walamiya - National Mobile Telecommunications		Kuwait	Telecommunications	1 851	2 477	865	1 480	2 680 ^g	3 600	69.2	..	..	..
72	79	22	Compal Electronics Inc		Taiwan Province of China	Machinery and equipment	1 829	6 129	219	11 731	19 668 ^g	33 650	30.1	11	14	78.6
73	25	14	Stats Chippac Limited		Singapore	Diversified	1 771	2 458	1 606	1 617	7 392 ^g	13 817	75.0	15	17	88.2
74	44	28	Delta Electronics Inc.		Taiwan Province of China	Electrical & electronic equipment	1 743	2 734	1 331	3 228	3 118 ^g	4 760	56.8	14	19	73.7
75	98	70	China National Offshore Oil Corp. j		China	Petroleum and natural gas	1 741 ^h	19 884	1 818	11 391	1 500 ^g	44 000	9.4	8	28	28.6
76	85	81	Naspers Limited		South Africa	Media	1 702	4 618	760	2 799	1 962 ^g	12 067	26.8	2	14	14.3
77	5	44	Tianjin Development Holdings Limited		Hong Kong, China	Diversified	1 664	1 702	346	346	3 969	4 200	97.4	15	26	57.7
78	1	62	TCL Multimedia Technology Holdings Limited ^o		Hong Kong, China	Electronics	1 595	1 595	3 956	3 956	25 146 ^g	25 146	100.0	1	3	33.3
79	19	51	Beijing Enterprises Holdings Ltd.		Hong Kong, China	Diversified	1 573	2 228	1 797	1 801	26 634 ^g	34 869	82.3	2	4	50.0
80	78	83	Bilvest Group Limited		South Africa	Business services	1 511	4 016	4 192	11 108	15 296	93 326	30.6	17	148	11.5

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Annex table A.I.16. The top 100 non-financial TNCs from developing countries, ranked by foreign assets, 2006^a (concluded)
(Millions of dollars and number of employees)

Ranking by:	Foreign assets		Corporation	Home economy	Industry ^d	Assets		Sales		Employment		No. of affiliates					
	TNI ^b	II ^c				Foreign ^e	Total	Foreign ^f	Total	Foreign	Total	Foreign	Total	TNI ^b (Per cent)	Foreign	Total	II ^c
81	38	80	Gruma S.A. De C.V.	Mexico	Food & beverages	1 483	2 779	1 933	2 817	10 784	18 124	60.5	8	49	16.3		
82	61	20	Mitic International Corp.	Taiwan Province of China	Computer and related businesses	1 441	2 142	499	2 813	12 806 ^g	25 012	45.4	20	24	83.3		
83	22	26	Cheng Shin Rubber Industries Company	Taiwan Province of China	Rubber tyres	1 434	1 798	1 124	1 472	12 495 ^g	16 203	77.8	6	8	75.0		
84	15	64	Unimicon Technology	Taiwan Province of China	Electrical & electronic equipment	1 393	1 513	898	1 163	15 215 ^g	15 953	88.2	1	3	33.3		
85	9	71	Shougang Concord International ^o	Hong Kong, China	Metals and metal products	1 385	1 448	796	832	3 820	4 200	94.1	10	35	28.6		
86	75	27	Yang Ming Marine Transport Corporation	Taiwan Province of China	Transport	1 369	2 951	453	3 292	1 385 ^g	3 291	34.1	34	46	73.9		
87	56	23	Advanced Semiconductor Engineering Inc	Taiwan Province of China	Computer and related businesses	1 357	4 204	2 504	3 081	7 841	26 986	47.5	11	14	78.6		
88	6	13	Road King Infrastructure Limited	Hong Kong, China	Transport	1 352	1 410	67	71	451 ^g	451	96.7	8	9	88.9		
89	95	75	Pcow Limited	Hong Kong, China	Telecommunications	1 331	6 357	274	3 298	2 174 ^g	14 500	14.7	1	5	20.0		
90	7	16	Datatec Limited ^p	South Africa	Computer and related businesses	1 297	1 391	3 016	3 168	2 849	2 954	95.0	38	44	86.4		
91	76	69	Grupo Bimbo SA De Cv	Mexico	Food & beverages	1 297	3 843	1 842	5 848	18 930	63 633	31.7	22	75	29.3		
92	97	92	China Minerals Corp. ^l	China	Metals and metal products	1 266	6 813	2 527	17 256	630	32 594	11.7	14	265	5.3		
93	2	52	Lee & Man Paper Manufacturing Limited	Hong Kong, China	Paper	1 265	1 266	664	664	5 887 ^g	5 900	99.9	1	2	50.0		
94	10	17	PacificAndes International Holdings Lim ^m	Hong Kong, China	Food	1 259	1 304	964	1 091	8 695	9 000	93.9	25	29	86.2		
95	3	1	Want Want Holdings Ltd.	Singapore	Food & beverages	1 206	1 206	868	868	30 600 ^g	31 740	98.8	126	129	97.7		
96	99	36	China Communications Construction Co.	China	Construction	1 162	16 258	2 855	14 712	1 078	78 331	9.3	..	..	..
97	93	96	Imperial Holdings	South Africa	Motor vehicles	1 119	6 533	2 353	9 500	6 390	43 792	18.8	2	67	3.0		
98	46	34	Clam International Limited ⁿ	Singapore	Electrical & electronic equipment	1 117	2 205	2 205	3 558	4 027	7 678	55.0	4	6	66.7		
99	36	55	Ranbaxy Laboratories Limited	India	Pharmaceuticals	1 112	1 857	1 020	1 388	6 788 ^g	11 343	64.4	31	67	46.3		
100	70	36	Wistron Corp.	Taiwan Province of China	Machinery and equipment	1 103	2 260	833	6 782	12 065 ^g	21 494	39.1	9	14	64.3		

Source: UNCTAD/Erasmus University database.

^a All data are based on the companies' annual reports unless otherwise stated. Data of affiliates are from Dun and Bradstreet's Who Owns Whom database.

^b TNI is calculated as the average of the following three ratios: foreign assets to total assets, foreign sales to total sales and foreign employment to total employment.

^c II is calculated as the number of foreign affiliates divided by number of all affiliates (Note: Affiliates counted in this table refer to only majority-owned affiliates).

^d Industry classification for companies follows the United States Standard Industrial Classification as used by the United States Securities and Exchange Commission (SEC).

^e Number of companies reported only partial foreign assets. In these cases, the ratio of the partial foreign assets to the partial (total) assets was applied to calculate the total foreign assets.

^f Foreign sales are based on the origin of the sales. Number of companies reported sales only by destination.

^g Foreign employment data are calculated by applying the share of foreign employment in total employment of the previous year to total employment in 2006.

^h Foreign sales data are calculated by applying the share of foreign sales in total sales of the previous year to total sales in 2006.

ⁱ Data were obtained from the company in response to an UNCTAD survey.

^j Estimation for all companies in the group.

^k Data from the previous year.

^l Data are for foreign activities outside Asia.

^m Domestic assets are present as "Australasia".

ⁿ Company is part of the larger company that does not provide consolidated data.

^o Data are for foreign activities outside Africa.

^p Note: The list covers non-financial TNCs only. In some companies, foreign investors may hold a minority share of more than 10 per cent.

Annex table A.I.17. Top 50 financial TNCs ranked by Geographic Spread Index (GSI), 2006^a
(Millions of dollars, number of employees)

Rank 2006	Rank GSI	Rank 2005	Rank GSI	Financial TNCs	Home economy	Assets	Employees	Affiliates			
						Total	Total	Total	Number of foreign affiliates	I.I.	Number of host countries
1	70	1	66	Citigroup Inc	United States	1 884 318	337 000	773	506	65	75
2	60	2	62	General Electric Capital Corporation	United States	543 665	81 000	1 117	785	70	51
3	60	3	61	Allianz Se	Germany	1 357 702	166 505	824	613	74	48
4	58	8	57	BNP Paribas	France	1 898 186	132 507	746	517	69	49
5	56	10	56	Axa	France	939 841	76 339	603	504	84	38
6	56	5	58	Generali Group	Italy	486 429	63 770	359	305	85	37
7	55	13	52	ABN Amro Holding Nv	Netherlands	1 297 604	107 535	887	624	70	43
8	55	11	54	Societe Generale	France	1 261 478	115 134	495	298	60	50
9	54	4	60	UBS Ag	Switzerland	1 961 327	78 140	328	293	89	33
10	54	14	50	Deutsche Bank Ag	Germany	1 480 984	68 849	974	745	76	38
11	54	18	42	ING Groep Nv	Netherlands	1 606 735	119 801	939	592	63	46
12	54	9	56	Unicredit Group	Italy	1 077 209	139 061	794	738	93	31
13	53	7	57	Zurich Financial Services	Switzerland	351 186	52 286	338	327	97	29
14	52	6	58	HSBC Holdings Plc	United Kingdom	1 857 520	300 920	985	574	58	47
15	51	17	42	American International Group Inc	United States	979 414	106 000	574	342	60	43
16	50	12	54	Credit Suisse Group	Switzerland	1 025 111	44 871	251	221	88	28
17	45	19	41	Credit Agricole Sa	France	1 662 600	77 063	387	195	50	40
18	44	46	25	Fortis Nv	Belgium/Netherlands	1 020 098	59 747	431	306	71	27
19	43	24	35	Natexis Banque Populaire	France	604 366	21 138	268	119	44	41
20	42	35	30	Dexia	Belgium	747 045	21 490	234	192	82	22
21	42	29	34	JP Morgan Chase & Company	United States	1 351 520	174 360	491	278	57	31
22	40	15	44	Banco Santander Sa	Spain	1 088 015	129 749	316	231	73	22
23	39	27	34	Merrill Lynch & Company Inc	United States	841 299	56 200	196	124	63	24
24	39	23	35	KBC Groepe Sa	Belgium	428 485	50 189	308	245	80	19
25	37	20	37	Bank Of Nova Scotia	Canada	336 347	53 251	86	60	70	20
26	37	26	35	Royal Bank of Canada	Canada	477 432	70 000	187	161	86	16
27	36	21	37	Standard Chartered Plc	United Kingdom	265 537	59 205	132	70	53	25
28	36	22	36	Skandinaviska Enskilda Banken	Sweden	282 526	19 672	166	117	70	18
29	35	31	33	Barclays Plc	United Kingdom	1 949 167	122 600	578	199	34	36
30	34	37	30	Nordea Bank Ab	Sweden	457 134	29 248	200	181	91	13
31	33	25	35	Intesa Sanpaolo	Italy	383 085	56 553	179	95	53	20
32	32	28	34	Morgan Stanley	United States	1 120 645	55 310	229	127	55	19
33	32	36	30	Goldman Sachs Group Inc	United States	834 774	26 467	153	87	57	18
34	32	38	30	Aviva Plc	United Kingdom	555 183	58 019	454	229	50	20
35	31	34	31	Bbv Argentario Sa	Spain	536 972	98 553	202	104	51	19
36	29	30	33	Nomura Holdings Inc	Japan	296 837	14 668	137	69	50	17
37	29	32	31	Mitsubishi UFJ Financial Group	Japan	1 585 767	82 838	116	61	53	16
38	29	43	26	Danske Bank A/S	Denmark	484 515	19 253	83	68	82	10
39	29	47	25	Royal Bank Of Scotland Group Plc	United Kingdom	1 705 044	135 000	1 173	353	30	27
40	27	33	31	Manulife Financial Corp.	Canada	308 512	20 000	73	61	84	9
41	27	41	27	Commerzbank Ag	Germany	795 900	35 975	460	143	31	24
42	27			Rabobank	Netherlands	731 811	56 209	592	159	27	27
43	26	15	47	GMAC Llc	United States	287 439	31 400	97	43	44	15
44	25	49	24	Mizuho Financial Group Inc	Japan	1 269 600	45 758	87	42	48	13
45	25	45	25	Sumitomo Mitsui Financial Group	Japan	901 711	40 681	83	36	43	14
46	24	39	28	Aegon Nv	Netherlands	415 320	28 726	345	158	46	13
47	24	50	22	Prudential Plc	United Kingdom	454 266	39 814	209	71	34	17
48	23	48	24	Prudential Financial Inc	United States	419 889	34 789	115	46	40	13
49	23	44	25	Svenska Handelsbanken Ab	Sweden	261 544	10 163	64	25	39	13
50	21			DZ Bank	Germany	643 832	24 055	205	60	29	15

Source: UNCTAD.

^a All data are based on the companies' annual reports unless otherwise stated. Data on affiliates is based on Dun and Bradstreet's *Who Owns Whom* database.

^b GSI is calculated as the square root of the Internationalization Index multiplied by the number of host countries.

^c I.I., the "Internationalization Index", is calculated as the number of foreign affiliates divided by the number of all affiliates (Note: affiliates counted in this table refer to only majority-owned affiliates).

Annex table A.II.1. List of strategic industries in the Strategic Industry Law of the Russian Federation of May 2008

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- (1) Work which actively affects hydro meteorological processes and events.
 - (2) Work which actively affects geophysical processes and events.
 - (3) Activities connected with the use of agents of infectious disease.
 - (4) Placement, construction, exploitation and decommissioning of nuclear facilities, radiation sources, nuclear and radioactive materials and storage facilities for radioactive waste.
 - (5) Treatment of nuclear and radioactive materials in the course of research on, and extraction of, uranium; and in the course of producing, using, processing, transferring and storing nuclear and radioactive materials.
 - (6) Treatment of radioactive waste during its storage, processing, transportation and disposal.
 - (7) Use of nuclear and radioactive materials in scientific and engineering research.
 - (8) Designing and engineering nuclear facilities or other facilities which are sources of radioactivity or radioactive materials, and storage facilities for radioactive waste.
 - (9) Engineering and producing equipment for nuclear facilities, or other equipment which are sources of radioactivity or radioactive materials, and equipment for storage facilities for radioactive waste.
 - (10) Examining project, engineering and technical documentation certifying the safety of nuclear facilities, radioactive materials and storage facilities for radioactive waste, or relating to the treatment of nuclear and radioactive materials and waste.
 - (11) Engineering and producing encryption devices or devices using encryption (cryptographic means) to protect information or communications, when such activity is licensable.
 - (12) Distribution of licensable encryption devices.
 - (13) Technical maintenance of licensable encryption (cryptographic) devices.
 - (14) Providing services in the area of encryption of information.
 - (15) Activities connected with detecting electronic devices designed for eavesdropping or secret information gathering (except when such activities are carried out for the internal needs of a legal entity).
 - (16) Engineering, production, sale and purchase for further re-sale of devices designed for eavesdropping or secret information gathering by commercial legal entities.
 - (17) Designing of weapons and military equipment.
 - (18) Production of weapons and military equipment.
 - (19) Repair of weapons and military equipment.
 - (20) Disposal of weapons and military equipment.
 - (21) Trade in weapons and military equipment.
 - (22) Production of weapons and their parts (except for production of knives and blades, or weapons for civil or official use).
 - (23) Production of cartridges and their parts (except for production of cartridges for civil or official use).
 - (24) Trade in weapons and their parts and cartridges and their parts (except for trade in knives and blades, weapons for civil or official use and cartridges for civil or official use).
 - (25) Design and production of ammunition and its parts.
 - (26) Disposal of ammunition and its parts.
 - (27) Production and distribution of explosive materials for industrial use.
 - (28) Activities relating to aircraft safety.
 - (29) Space activities.
 - (30) Design of aircraft and equipment for aircraft including dual purpose aircraft.
 - (31) Production of aircraft and equipment for aircraft including dual purpose aircraft.
 - (32) Repair of aircraft and equipment including dual purpose aircraft (except for the repair of parts undertaken by civil aviation organisations).
 - (33) Testing of aircraft and equipment including dual purpose aircraft.
 - (34) Television broadcasting where the “footprint” includes territories where at least 50% of the citizens of a particular constituent entity of the Russian Federation reside.
 - (35) Radio broadcasting where the “footprint” includes territories where at least 50% of the citizens of a particular constituent entity of the Russian Federation reside.
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**Annex table A.II.1. List of strategic industries in the Strategic Industry Law
of the Russian Federation of May 2008 (concluded)**

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- (36) Provision of services by registered natural monopolies in the industries listed in Article 4(1) of Federal Law “On Natural Monopolies”, except for electrical and postal communication services, energy transmission services, and electricity supply services.
 - (37) Activities carried out by a company included in the register of monopolies where the dominant position in question is in the Russian communication services market (except for internet access services); or in the fixed-line telephone markets of Moscow or Saint Petersburg; or in the fixed-line telephone markets of at least five constituent entities of the Russian Federation.
 - (38) Activities carried out by a company holding a dominant market position in the production and sale of metals and alloys having specific characteristics and used in production of weapons and military equipment.
 - (39) Geological exploration and extraction of natural resources on subsoil plots of federal significance.
 - (40) Extraction of biological resources in waters.
 - (41) Printing activities, if potential output exceeds 200,000,000 pages per month.
 - (42) Publishing activities, if the aggregate circulation of each issue published exceeds 1,000,000 copies.
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Source: Allen & Overy LLP, “Russian Federation introduces new rules for foreign investment in strategic sectors”, *Bulletin*, June 2008.

Annex table A.III.1. Inward FDI stock of selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b
(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2006
World	Electricity, gas and water	7 426.7	22 543.5	91 938.1	186 846.5
	Transport, storage and communications	17 541.8	54 806.0	337 910.2	598 328.4
	Share of infrastructure in total FDI (%)	1.8	3.4	9.0	8.4
Developed countries	Electricity, gas and water	5 119.5	14 590.7	57 832.7	137 995.5
	Transport, storage and communications	13 026.5	30 514.3	253 379.6	439 217.3
	Share of infrastructure in total FDI (%)	1.5	2.5	9.0	8.3
European Union	Electricity, gas and water	2 903.5	11 165.7	31 762.2	85 709.1
	Transport, storage and communications	5 842.3	16 195.4	135 074.7	315 344.0
	Share of infrastructure in total FDI (%)	1.5	3.0	9.9	9.8
Austria	Electricity, gas and water	300.2	25.8	27.9	390.5
	Transport, storage and communications	-	372.0	1 651.8	2 502.1
	Share of infrastructure in total FDI (%)	2.7	2.0	5.5	4.2
Bulgaria	Electricity, gas and water	-	173.0	62.4	1 158.1
	Transport, storage and communications	-	544.3	198.5	3 677.2
	Share of infrastructure in total FDI (%)	..	17.2	9.7	21.2
Czech Republic	Electricity, gas and water	-	400.3	1 425.1	7 159.0
	Transport, storage and communications	-	868.2	2 432.6	6 103.6
	Share of infrastructure in total FDI (%)	..	13.7	17.7	16.6
Denmark	Electricity, gas and water	84.6	134.6	-	2 138.7
	Transport, storage and communications	1 268.3	1 143.9	5 702.6	9 316.8
	Share of infrastructure in total FDI (%)	9.2	5.7	8.5	8.5
Estonia	Electricity, gas and water	-	14.5	62.7	333.3
	Transport, storage and communications	-	118.8	142.1	891.3
	Share of infrastructure in total FDI (%)	..	7.3	7.7	9.7
Finland	Transport, storage and communications	205.8	333.6	523.9	-
	Share of infrastructure in total FDI (%)	3.1	3.9	2.2	..
France	Electricity, gas and water	-	729.6	2 026.6	3 441.2
	Transport, storage and communications	526.8	1 334.7	3 101.4	29 262.5
	Share of infrastructure in total FDI (%)	0.6	1.1	2.0	4.9
Germany	Electricity, gas and water	276.4	537.8	2 343.9	1 968.9
	Transport, storage and communications	915.0	1 958.8	6 480.0	48 019.7
	Share of infrastructure in total FDI (%)	1.0	1.3	3.2	10.9
Greece	Electricity, gas and water	-	-	-	285.6
	Transport, storage and communications	-	-	-	7 369.8
	Share of infrastructure in total FDI (%)	..	..	..	18.5
Hungary	Electricity, gas and water	-	1 380.8	1 248.4	2 989.1
	Transport, storage and communications	-	772.5	3 235.8	6 698.3
	Share of infrastructure in total FDI (%)	..	21.4	19.6	11.9
Ireland	Transport, storage and communications	-	-	-	3 458.4
	Share of infrastructure in total FDI (%)	..	..	..	2.2
Italy	Electricity, gas and water	1 936.9	-	-	-
	Transport, storage and communications	1 077.7	3 201.8	5 209.9	9 968.4
	Share of infrastructure in total FDI (%)	5.2	5.0	4.7	4.0
Latvia	Electricity, gas and water	-	-	105.6	649.4
	Transport, storage and communications	-	-	396.9	647.6
	Share of infrastructure in total FDI (%)	..	..	24.1	17.3
Lithuania	Electricity, gas and water	-	0.1	59.4	1 159.2
	Transport, storage and communications	-	82.6	437.8	1 190.1
	Share of infrastructure in total FDI (%)	..	11.8	21.3	21.4

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Annex table A.III.1. Inward FDI stock to selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b
(continued)
(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2006
Netherlands	Transport, storage and communications	769.3	1 966.9	17 013.2	16 670.5
	Share of infrastructure in total FDI (%)	1.1	1.8	7.1	3.3
Poland	Electricity, gas and water	-	6.7	408.7	2 611.3
	Transport, storage and communications	-	383.4	3 163.8	7 296.7
	Share of infrastructure in total FDI (%)	..	2.8	8.7	10.9
Portugal	Electricity, gas and water	-	562.7	485.4	1 010.1
	Transport, storage and communications	-	182.0	2 949.5	2 698.5
	Share of infrastructure in total FDI (%)	..	4.2	7.6	4.2
Romania	Electricity, gas and water	-	-	-	1 671.0
	Transport, storage and communications	-	-	-	4 246.1
	Share of infrastructure in total FDI (%)	..	..	..	13.0
Slovakia	Electricity, gas and water	-	7.4	9.2	1 241.1
	Transport, storage and communications	-	54.5	628.7	1 138.5
	Share of infrastructure in total FDI (%)	..	3.3	17.1	18.2
Slovenia	Electricity, gas and water	305.4	323.7	20.1	354.0
	Transport, storage and communications	18.9	22.2	49.9	396.7
	Share of infrastructure in total FDI (%)	23.8	18.3	2.4	8.4
Sweden	Electricity, gas and water	-	2 328.6	5 873.1	23 891.4
	Transport, storage and communications	-	-	-	15 005.0
	Share of infrastructure in total FDI (%)	..	6.8	6.2	17.2
United Kingdom	Electricity, gas and water	-	4 540.0	17 603.5	33 257.2
	Transport, storage and communications	1 060.4	2 855.1	81 756.2	138 786.2
	Share of infrastructure in total FDI (%)	0.5	3.7	22.7	15.2
Other developed	Electricity, gas and water	2 216.0	3 425.0	26 070.5	52 286.4
	Transport, storage and communications	7 184.2	14 318.9	118 304.9	123 873.3
	Share of infrastructure in total FDI (%)	1.5	2.0	8.2	6.1
Australia	Electricity, gas and water	-	-	5 143.3	7 067.1
	Transport, storage and communications	749.9	1 540.7	3 711.3	21 493.3
	Share of infrastructure in total FDI (%)	1.0	1.5	8.1	11.4
Canada	Electricity, gas and water	-	-	1 489.1	3 793.0
	Transport, storage and communications	2 703.6	4 045.6	7 347.0	8 034.0
	Share of infrastructure in total FDI (%)	2.4	3.3	4.2	3.1
Iceland	Transport, storage and communications	0.4	4.7	- 0.3	575.1
	Share of infrastructure in total FDI (%)	0.2	3.6	- 0.1	7.7
Israel	Electricity, gas and water	-	-	-	37.3
	Transport, storage and communications	-	-	442.9	2 384.4
	Share of infrastructure in total FDI (%)	..	..	2.0	4.8
Japan	Transport, storage and communications	169.3	578.4	4 925.1	10 399.1
	Share of infrastructure in total FDI (%)	1.7	1.7	9.8	10.3
Norway	Transport, storage and communications	101.6	253.2	2 000.3	6 738.8
	Share of infrastructure in total FDI (%)	0.8	1.3	6.6	8.8
Switzerland	Transport, storage and communications	112.5	260.4	2 280.6	5 938.5
	Share of infrastructure in total FDI (%)	0.3	0.5	2.6	2.7
United States	Electricity, gas and water	2 216.0	3 425.0	19 438.0	41 389.0
	Transport, storage and communications	3 347.0	7 636.0	97 598.0	68 310.0
	Share of infrastructure in total FDI (%)	1.4	2.1	9.3	6.1
Developing economies	Electricity, gas and water	2 307.2	7 823.9	33 277.7	47 269.5
	Transport, storage and communications	4 487.5	20 475.6	78 565.5	151 625.6
	Share of infrastructure in total FDI (%)	3.8	6.0	8.8	8.9

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Annex table A.III.1. Inward FDI stock to selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b
(continued)

(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2006
Africa	Electricity, gas and water	-	72.6	180.2	15.4
	Transport, storage and communications	131.8	1 901.3	5 736.8	12 812.9
	Share of infrastructure in total FDI (%)	1.3	6.0	9.3	10.4
Botswana	Electricity, gas and water	-	1.8	-	-
	Transport, storage and communications	-	8.7	19.6	17.6
	Share of infrastructure in total FDI (%)	..	0.8	1.1	2.2
Cape Verde	Transport, storage and communications	0.0	0.0	-	-
	Share of infrastructure in total FDI (%)	0.0	49.9	..	..
Egypt	Transport, storage and communications	-	1 682.3	-	-
	Share of infrastructure in total FDI (%)	..	12.6	..	..
Madagascar	Electricity, gas and water	-	-	11.5	11.2
	Transport, storage and communications	-	-	24.9	105.9
	Share of infrastructure in total FDI (%)	..	..	22.0	12.6
Malawi	Transport, storage and communications	-	-	34.3	-
	Share of infrastructure in total FDI (%)	..	..	9.6	..
Morocco	Transport, storage and communications	-	-	4 280.0	10 607.5
	Share of infrastructure in total FDI (%)	..	..	35.3	35.4
Namibia	Transport, storage and communications	-	0.7	0.6	1.4
	Share of infrastructure in total FDI (%)	..	0.1	0.1	0.1
South Africa	Electricity, gas and water	-	-	-	4.2
	Transport, storage and communications	131.8	114.0	1 125.9	1 981.2
	Share of infrastructure in total FDI (%)	1.3	0.9	2.6	2.3
Uganda	Electricity, gas and water	-	-	9.4	-
	Transport, storage and communications	-	-	94.2	99.3
	Share of infrastructure in total FDI (%)	..	..	19.2	13.7
United Republic of Tanzania	Electricity, gas and water	-	70.7	36.7	-
	Transport, storage and communications	-	95.5	145.4	-
	Share of infrastructure in total FDI (%)	..	4.9	6.0	..
Zambia	Electricity, gas and water	-	-	122.6	-
	Transport, storage and communications	-	-	12.0	-
	Share of infrastructure in total FDI (%)	..	..	15.8	..
Latin America and the Caribbean	Electricity, gas and water	2 292.9	5 875.9	27 213.1	33 422.0 ^c
	Transport, storage and communications	2 990.1	7 630.0	38 121.1	58 691.9 ^c
	Share of infrastructure in total FDI (%)	7.4	11.8	23.7	20.1
Argentina	Electricity, gas and water	2 291.0	4 875.2	7 951.3	5 053.3
	Transport, storage and communications	1 998.5	2 886.6	6 997.4	3 992.4
	Share of infrastructure in total FDI (%)	26.3	27.7	22.1	17.9
Bolivia	Transport, storage and communications	0.7	-	-	-
	Share of infrastructure in total FDI (%)	0.1	..	..	..
Brazil	Electricity, gas and water	1.3	2.1	7 262.2	16 160.0 ^c
	Transport, storage and communications	116.7	591.8	19 256.8	37 760.2 ^c
	Share of infrastructure in total FDI (%)	0.3	1.4	25.7	..
Chile	Electricity, gas and water	-	92.0	7 767.9	12 795.8
	Transport, storage and communications	310.7	910.6	3 052.9	7 234.0
	Share of infrastructure in total FDI (%)	4.9	6.4	24.6	31.5
Colombia	Electricity, gas and water	-	541.1	1 191.2	955.9 ^c
	Transport, storage and communications	33.8	468.7	1 840.7	4 345.8 ^c
	Share of infrastructure in total FDI (%)	1.0	8.6	27.8	..
Dominican Republic	Electricity, gas and water	-	-	-	1 525.9
	Transport, storage and communications	-	-	-	1 872.4
	Share of infrastructure in total FDI (%)	38.4

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Annex table A.III.1. Inward FDI stock to selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b
(continued)

(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2006
El Salvador	Electricity, gas and water	-	-	806.9	759.7
	Transport, storage and communications	-	-	291.0	793.9
	Share of infrastructure in total FDI (%)	..	..	55.6	35.5
Panama	Electricity, gas and water	-	-	695.6	1 017.5 ^c
	Transport, storage and communications	510.4	606.0	1 729.4	3 058.1 ^c
	Share of infrastructure in total FDI (%)	22.4	18.2	36.0	..
Paraguay	Electricity, gas and water	-	-	0.2	-
	Transport, storage and communications	-	94.0	280.6	-
	Share of infrastructure in total FDI (%)	..	14.6	23.2	..
Peru	Electricity, gas and water	0.6	364.8	1 513.7	1 650.4
	Transport, storage and communications	5.3	2 015.4	4 680.4	5 288.3
	Share of infrastructure in total FDI (%)	0.5	47.0	50.9	44.9
Venezuela, Bolivarian Rep. of	Electricity, gas and water	-	0.7	0.7	-
	Transport, storage and communications	14.0	56.9	56.9	-
	Share of infrastructure in total FDI (%)	0.4	0.7	0.2	..
Asia and Oceania	Electricity, gas and water	14.3	1 875.5	5 884.4	13 833.1
	Transport, storage and communications	1 365.6	10 944.3	34 707.6	80 120.8
	Share of infrastructure in total FDI (%)	1.4	3.9	4.4	6.0
Bangladesh	Electricity, gas and water	-	-	216.3	315.5
	Transport, storage and communications	-	6.1	38.7	420.3
	Share of infrastructure in total FDI (%)	..	0.7	11.8	20.4
Cambodia	Electricity, gas and water	0.3	-	-	-
	Transport, storage and communications	-	58.6	129.9	131.1
	Share of infrastructure in total FDI (%)	0.8	6.2	8.2	5.6
China	Electricity, gas and water	-	-	-	2 991.2
	Transport, storage and communications	-	2 244.6	4 480.3	7 147.4
	Share of infrastructure in total FDI (%)	..	2.2	2.3	3.5
Hong Kong, China	Transport, storage and communications	-	4 074.0	17 021.7	24 490.3
	Share of infrastructure in total FDI (%)	..	5.7	3.7	3.3
India	Electricity, gas and water	1.7	4.0	-	-
	Transport, storage and communications	7.7	0.3	-	-
	Share of infrastructure in total FDI (%)	0.6	0.2	..	..
Indonesia	Transport, storage and communications	91.8	1 237.0	-	-
	Share of infrastructure in total FDI (%)	0.4	3.3	..	..
	Transport, storage and communications	-	-	-	1 084.8
Share of infrastructure in total FDI (%)	..	..	..	8.2	
Korea, Republic of	Electricity, gas and water	-	-	566.5	569.5
	Transport, storage and communications	29.4	66.4	1 313.3	4 291.2
	Share of infrastructure in total FDI (%)	0.6	0.7	4.9	6.8
Lao People's Democratic Rep.	Electricity, gas and water	-	167.5	-	-
	Transport, storage and communications	0.5	2.7	-	-
	Share of infrastructure in total FDI (%)	4.0	80.8	..	..
Macao, China	Transport, storage and communications	-	-	193.2	136.3
	Share of infrastructure in total FDI (%)	..	..	6.5	2.1
Mongolia	Electricity, gas and water	-	0.5	1.8	-
	Transport, storage and communications	0.0	7.1	20.0	-
	Share of infrastructure in total FDI (%)	10.4	20.0	12.0	..
Myanmar	Electricity, gas and water	-	-	-	2 184.4
	Transport, storage and communications	0.3	45.3	148.1	113.5
	Share of infrastructure in total FDI (%)	0.1	3.7	3.8	45.9

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Annex table A.III.1. Inward FDI stock to selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b
(continued)

(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2006
Nepal	Electricity, gas and water	-	1.5	-	-
	Transport, storage and communications	0.2	0.3	-	-
	Share of infrastructure in total FDI (%)	1.8	12.8	..	..
Oman	Electricity, gas and water	-	-	-	467.9
	Share of infrastructure in total FDI (%)	..	..	..	8.0
Pakistan	Electricity, gas and water	-	1 455.8	2 696.9	1 524.5
	Transport, storage and communications	56.9	122.6	183.8	639.3
	Share of infrastructure in total FDI (%)	3.0	29.2	41.6	32.5
Papua New Guinea	Transport, storage and communications	6.3	1.5	-	-
	Share of infrastructure in total FDI (%)	0.4	0.1	..	..
Philippines	Electricity, gas and water	12.3	246.2	703.9	554.1
	Transport, storage and communications	29.0	119.2	1 143.2	1 804.9
	Share of infrastructure in total FDI (%)	1.3	6.0	14.4	13.7
Saudi Arabia	Electricity, gas and water	-	-	6.0	2 306.0
	Transport, storage and communications	1.3	-	93.0	1 147.0
	Share of infrastructure in total FDI (%)	0.0	..	0.6	10.3
Singapore	Transport, storage and communications	783.4	2 035.5	5 403.4	10 200.2
	Share of infrastructure in total FDI (%)	2.6	3.1	4.8	6.1
Syrian Arab Republic	Transport, storage and communications	-	-	-	2.6
	Share of infrastructure in total FDI (%)	..	..	..	0.0
Taiwan Province of China	Transport, storage and communications	233.7	458.6	399.2	2 998.0
	Share of infrastructure in total FDI (%)	2.4	2.9	2.3	5.9
Thailand	Transport, storage and communications	-	-	576.0	423.0
	Share of infrastructure in total FDI (%)	..	..	2.3	0.9
Turkey	Electricity, gas and water	-	-	1 693.0	2 920.0
	Transport, storage and communications	-	-	2 487.0	25 091.0
	Share of infrastructure in total FDI (%)	..	..	21.8	32.3
Viet Nam	Transport, storage and communications	125.1	464.5	1 076.7	-
	Share of infrastructure in total FDI (%)	7.6	6.5	5.2	..
South-East Europe and CIS	Electricity, gas and water	-	128.9	827.7	1 580.5
	Transport, storage and communications	27.8	3 816.1	5 965.1	7 485.6
	Share of infrastructure in total FDI (%)	1.4	20.7	17.7	6.5
Albania	Electricity, gas and water	-	-	-	- 1.3
	Transport, storage and communications	-	-	-	455.3
	Share of infrastructure in total FDI (%)	..	..	..	65.3
Armenia	Electricity, gas and water	-	43.3	127.3	267.8
	Transport, storage and communications	-	63.8	113.0	351.5
	Share of infrastructure in total FDI (%)	..	30.1	41.3	36.3
Bosnia and Herzegovina	Transport, storage and communications	-	-	-	13.9
	Share of infrastructure in total FDI (%)	..	..	..	0.5
Croatia	Electricity, gas and water	-	-	27.3	128.0
	Transport, storage and communications	-	1 112.9	903.6	1 398.8
	Share of infrastructure in total FDI (%)	..	30.6	17.9	5.7
Georgia	Electricity, gas and water	-	47.6	-	-
	Transport, storage and communications	-	137.8	-	-
	Share of infrastructure in total FDI (%)	..	88.3

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Annex table A.III.1. Inward FDI stock to selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b
(continued)

(Millions of dollars and per cent)

Host region/economy	Industry	1990	1995	2000	2006
Kazakhstan	Electricity, gas and water	-	-	454.1	573.7
	Transport, storage and communications	27.8	24.4	272.9	667.4
	Share of infrastructure in total FDI (%)	1.4	0.8	7.2	3.8
Moldova, Republic of	Electricity, gas and water	-	-	-	349.9
	Transport, storage and communications	-	-	-	65.8
	Share of infrastructure in total FDI (%)	..	..	..	39.2
Russian Federation	Electricity, gas and water	-	38.0	24.0	255.0
	Transport, storage and communications	-	2 474.0	4 429.0	3 625.0
	Share of infrastructure in total FDI (%)	..	21.3	27.6	7.8
The FYR of Macedonia	Electricity, gas and water	-	-	-	7.3
	Transport, storage and communications	-	3.2	10.6	501.9
	Share of infrastructure in total FDI (%)	..	2.1	2.0	24.4
Ukraine	Electricity, gas and water	-	-	195.0	-
	Transport, storage and communications	-	-	236.0	406.0
	Share of infrastructure in total FDI (%)	..	..	7.3	1.8
Memorandum item: LDCs^c	Electricity, gas and water	0.3	239.7	396.5	2 511.1
	Transport, storage and communications	1.0	208.5	627.4	870.0
	Share of infrastructure in total FDI (%)	0.4	6.8	8.2	26.8

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Notes: In this table, infrastructure covers electricity, gas and water, and transport, storage and communications, including transport services. In the case of Cambodia (1990), China, Japan (for 1990, 1995 and 2000), Lao People's Democratic Republic, Mongolia, Myanmar, Nepal, the Republic of Korea (1990), Taiwan Province of China and Viet Nam (1990) where only approval data were available, the actual data were estimated by applying the implementation ratio (i.e. the ratio of realized FDI to approved FDI) to the latter.

^a This table contains data for 62 economies in electricity, gas and water, and 85 economies for transport, storage and communications. The availability of data varies by year and industry, between 12 (1990) and 45 economies (2006) for electricity, gas and water, and 40 (1990) and 65 economies (2006) for transport, storage and communications. Consequently, regional and world totals cover only 42 countries in 1990, 62 countries in 1995, 67 countries in 2000, and 66 countries in 2006 accounting for over three-fourths in 1990 and about three fifths in 1995, 2000 and 2006 of world inward FDI stock.

^b Or latest year available as follows: for 1990 (between 1990 and 1994), for 1995 (between 1995 and 1999), for 2000 (between 2000 and 2002), and for 2006 (between 2003 and 2006).

^c Estimates.

^d Totals for LDCs cover 5 countries in 1990, 7 countries in 1995, 8 countries in 2000 and 5 countries in 2006, accounting for 3%, 17%, 37% and 18% of LDCs' inward stock respectively in 1990, 1995, 2000 and 2006.

Annex table A.III.2. Outward FDI stock from selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b

(Millions of dollars and per cent)

Home region/economy	Industry	1990	1995	2000	2006
World	Electricity, gas and water	7 301.2	14 458.9	86 264.9	117 454.1
	Transport, storage and communications	31 974.0	75 484.5	441 348.7	484 865.2
	Share of infrastructure in total FDI (%)	2.9	3.5	10.3	6.0
Developed countries	Electricity, gas and water	7 301.2	14 458.9	85 365.1	109 526.0
	Transport, storage and communications	31 617.4	58 367.3	418 715.8	440 331.8
	Share of infrastructure in total FDI (%)	2.9	3.2	11.0	6.1
European Union	Electricity, gas and water	5 801.2	8 463.9	57 788.3	86 932.8
	Transport, storage and communications	11 497.4	19 486.9	341 226.9	333 554.7
	Share of infrastructure in total FDI (%)	2.5	2.2	15.1	8.5
Austria	Electricity, gas and water	37.6	138.4	114.2	651.2
	Transport, storage and communications	67.9	47.9	86.0	1 439.2
	Share of infrastructure in total FDI (%)	2.2	1.6	0.8	3.2
Bulgaria	Transport, storage and communications	-	5.1	6.0	-
	Share of infrastructure in total FDI (%)	..	5.5	7.1	..
Cyprus	Electricity, gas and water	-	-	0.1	-
	Transport, storage and communications	-	-	119.2	-
	Share of infrastructure in total FDI (%)	..	..	9.3	..
Czech Republic	Electricity, gas and water	-	1.1	0.0	468.9
	Transport, storage and communications	-	1.3	14.6	26.4
	Share of infrastructure in total FDI (%)	..	0.4	2.0	9.9
Denmark	Electricity, gas and water	-	185.0	-	477.1
	Transport, storage and communications	1 403.6	2 052.3	4 157.2	13 582.3
	Share of infrastructure in total FDI (%)	9.0	8.1	6.3	9.4
Estonia	Electricity, gas and water	-	-	-	21.6
	Transport, storage and communications	-	37.5	32.2	370.0
	Share of infrastructure in total FDI (%)	..	18.9	12.4	10.8
Finland	Transport, storage and communications	335.0	260.4	7 464.5	-
	Share of infrastructure in total FDI (%)	2.7	1.7	14.3	..
France	Electricity, gas and water	-	4 368.1	29 753.7	38 655.2
	Transport, storage and communications	1 454.5	3 061.6	14 875.0	60 869.0
	Share of infrastructure in total FDI (%)	1.3	3.6	10.0	11.3
Germany	Electricity, gas and water	1 366.8	2 449.9	1 854.5	8 605.9
	Transport, storage and communications	1 581.0	2 964.1	6 630.8	15 662.9
	Share of infrastructure in total FDI (%)	1.7	1.5	1.6	2.6
Hungary	Electricity, gas and water	-	2.7	2.0	0.0
	Transport, storage and communications	-	0.2	15.9	299.2
	Share of infrastructure in total FDI (%)	..	0.4	1.4	2.5
Ireland	Transport, storage and communications	-	-	-	- 0.0
	Share of infrastructure in total FDI (%)	..	..	..	- 0.0
Italy	Electricity, gas and water	4 396.8	-	-	-
	Transport, storage and communications	465.4	4 175.5	4 847.9	306.9
	Share of infrastructure in total FDI (%)	8.7	4.3	3.0	0.1
Latvia	Electricity, gas and water	-	-	-	6.9
	Transport, storage and communications	-	201.7	0.7	21.1
	Share of infrastructure in total FDI (%)	..	98.2	2.8	5.9
Lithuania	Electricity, gas and water	-	-	-	7.2
	Transport, storage and communications	-	- 2.6	0.2	125.1
	Share of infrastructure in total FDI (%)	..	- 9.9	0.8	12.7
Netherlands	Transport, storage and communications	1 517.8	3 582.2	23 219.7	41 331.2
	Share of infrastructure in total FDI (%)	1.5	2.1	7.8	5.7

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Annex table A.III.2. Outward FDI stock from selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b (continued)
(Millions of dollars and per cent)

Home region/economy	Industry	1990	1995	2000	2006
Poland	Electricity, gas and water	-	4.0	-	1.2
	Transport, storage and communications	-	406.0	483.9	206.8
	Share of infrastructure in total FDI (%)	..	43.3	35.8	1.8
Portugal	Electricity, gas and water	-	243.9	346.6	126.4
	Transport, storage and communications	-	286.7	1 015.3	38.2
	Share of infrastructure in total FDI (%)	..	7.1	4.4	0.3
Slovakia	Electricity, gas and water	-	1.5	31.4	45.4
	Transport, storage and communications	-	5.2	3.4	1.3
	Share of infrastructure in total FDI (%)	..	3.6	10.8	6.4
Slovenia	Electricity, gas and water	-	-	42.7	18.2
	Transport, storage and communications	29.6	36.6	50.0	228.0
	Share of infrastructure in total FDI (%)	8.1	7.0	12.1	5.4
Sweden	Electricity, gas and water	-	145.5	2 517.0	5 098.8
	Transport, storage and communications	-	-	-	23 600.0
	Share of infrastructure in total FDI (%)	..	0.2	2.1	11.2
United Kingdom	Electricity, gas and water	-	923.8	23 126.1	32 748.8
	Transport, storage and communications	4 642.6	2 365.3	278 204.5	175 447.2
	Share of infrastructure in total FDI (%)	2.0	1.1	33.6	14.4
Other developed countries	Electricity, gas and water	1 500.0	5 995.0	27 576.8	22 593.2
	Transport, storage and communications	20 120.0	38 880.3	77 488.9	106 777.2
	Share of infrastructure in total FDI (%)	3.3	4.3	5.5	3.1
Australia	Transport, storage and communications	1 392.4	2 208.2	1 224.3	6 362.1
	Share of infrastructure in total FDI (%)	4.0	4.2	1.5	2.8
Canada	Electricity, gas and water	-	-	1 721.8	5 666.4
	Transport, storage and communications	10 449.9	16 496.5	33 186.2	35 943.5
	Share of infrastructure in total FDI (%)	12.3	14.0	14.7	9.3
Iceland	Transport, storage and communications	4.1	20.4	63.9	690.5
	Share of infrastructure in total FDI (%)	5.4	11.4	9.6	5.2
Israel	Electricity, gas and water	-	-	62.6	205.4
	Transport, storage and communications	3.2	-	121.1	606.0
	Share of infrastructure in total FDI (%)	0.2	..	2.0	2.2
Japan	Transport, storage and communications	-	-	-	7 130.6
	Share of infrastructure in total FDI (%)	..	..	..	1.8
Norway	Electricity, gas and water	-	-	3 828.4	5 314.5
	Transport, storage and communications	558.6	917.9	5 452.3	13 670.0
	Share of infrastructure in total FDI (%)	5.1	4.1	20.0	19.4
Switzerland	Transport, storage and communications	1 099.9	2 094.4	2 182.0	4 661.4
	Share of infrastructure in total FDI (%)	1.2	1.5	0.9	0.9
United States	Electricity, gas and water	1 500.0	5 995.0	21 964.0	11 407.0
	Transport, storage and communications	6 612.0	17 143.0	35 259.0	37 713.0
	Share of infrastructure in total FDI (%)	1.9	3.3	4.3	2.1
Developing economies	Electricity, gas and water	-	-	899.8	7 519.2
	Transport, storage and communications	356.6	17 116.9	22 556.9	44 620.3
	Share of infrastructure in total FDI (%)	3.0	6.3	4.4	5.1
Africa					
Morocco	Transport, storage and communications	-	-	63.4	373.6
	Share of infrastructure in total FDI (%)	14.0	27.7

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Annex table A.III.2. Outward FDI stock from selected economies^a in infrastructure, 1990, 1995, 2000 and 2006^b (concluded)

(Millions of dollars and per cent)

Home region/economy	Industry	1990	1995	2000	2006
Latin America and the Caribbean	Electricity, gas and water	-	-	105.8	4 452.6
	Transport, storage and communications	20.3	75.9	1 160.7	2 799.7
	Share of infrastructure in total FDI (%)	1.3	1.9	2.1	7.1
Brazil	Electricity, gas and water	-	-	32.6	18.0
	Transport, storage and communications	-	-	317.6	475.9
	Share of infrastructure in total FDI (%)	..	..	0.7	0.6
Chile	Electricity, gas and water	-	-	73.1	4 434.6
	Transport, storage and communications	5.0	16.3	366.4	2 323.8
	Share of infrastructure in total FDI (%)	0.4	0.6	5.9	28.7
Colombia	Electricity, gas and water	-	-	0.1	-
	Transport, storage and communications	15.3	59.6	476.8	-
	Share of infrastructure in total FDI (%)	3.8	5.8	12.5	..
Asia	Electricity, gas and water	-	-	794.0	3 066.5
	Transport, storage and communications	336.3	17 041.0	21 332.8	41 447.0
	Share of infrastructure in total FDI (%)	3.2	6.3	4.6	4.8
China	Electricity, gas and water	-	-	-	445.5
	Transport, storage and communications	-	-	-	7 568.2
	Share of infrastructure in total FDI (%)	..	..	..	8.8
Hong Kong, China	Transport, storage and communications	-	15 467.0	17 181.6	23 834.3
	Share of infrastructure in total FDI (%)	..	6.9	4.4	3.5
India	Transport, storage and communications	130.5	3.1	-	-
	Share of infrastructure in total FDI (%)	44.4	0.5	..	..
Korea, Republic of	Transport, storage and communications	6.7	87.7	189.5	317.6
	Share of infrastructure in total FDI (%)	0.3	0.9	0.7	0.7
Macao, China	Transport, storage and communications	-	-	50.6	6.9
	Share of infrastructure in total FDI (%)	..	..	12.0	0.6
Singapore	Transport, storage and communications	199.0	1 483.3	3 763.1	9 284.9
	Share of infrastructure in total FDI (%)	2.5	4.2	6.6	8.7
Turkey	Electricity, gas and water	-	-	794.0	2 621.0
	Transport, storage and communications	-	-	148.0	435.0
	Share of infrastructure in total FDI (%)	..	..	20.6	34.5
South-East Europe and CIS	Electricity, gas and water	-	-	-	408.9
	Transport, storage and communications	-	0.3	75.9	- 86.9
	Share of infrastructure in total FDI (%)	..	17.6	9.5	23.6
Croatia	Electricity, gas and water	-	-	-	408.9
	Transport, storage and communications	-	-	66.6	487.3
	Share of infrastructure in total FDI (%)	..	..	16.5	37.2
Kazakhstan	Transport, storage and communications	-	0.3	4.3	- 574.3
	Share of infrastructure in total FDI (%)	..	17.6	27.8	55.0
Russian Federation	Transport, storage and communications	-	-	5.0	-
	Share of infrastructure in total FDI (%)	..	..	1.3	..

Source: UNCTAD, FDI/TNC database (www.unctad.org/fdistatistics).

Notes: In this table, infrastructure covers electricity, gas and water and transport, storage and communications, including transport services.

^a This table contains data for 27 economies in electricity, gas and water, and 43 economies for transport, storage and communications. The availability of data varies by year and industry, between 4 (1990) and 24 economies (2006) for electricity, gas and water, and 21 (1990) and 37 economies (2006) for transport, storage and communications. Consequently, regional and world totals cover only 21 countries in 1990, 32 countries in 1995, 38 countries in 2000, and 37 countries in 2006, accounting for almost three fourths in 1990 and about four-fifths in 1995, 2000 and 2006 of world outward FDI stock.

^b Or latest year available as follows: for 1990 (between 1990 and 1994), for 1995 (between 1995 and 1999), for 2000 (between 2000 and 2002), and for 2006 (between 2003 and 2006).

Annex table A.III.3. The 25 largest cross-border M&A deals in infrastructure, 1991–2007

Rank	Value (\$ million)	Year	Acquiring firm	Acquiring economy	Target firm	Target economy	Target industry	Share acquired
1	202 785	2000	Vodafone AirTouch	United Kingdom	Mannesmann	Germany	Radiotelephone communications	100.0
2	60 287	1999	Vodafone Group	United Kingdom	AirTouch Communications Inc	United States	Telephone communications, except radiotelephone	100.0
3	45 967	2000	France Télécom	France	Orange	United Kingdom	Radiotelephone communications	100.0
4	34 162	2000	China Telecom Hong Kong Ltd	Hong Kong, China	Beijing Mobile(BVI), Shanghai Mobile(BVI), Tianjin Mobile, 4 others	China	Radiotelephone communications	100.0
5	32 595	1999	Mannesmann	Germany	Orange	United Kingdom	Radiotelephone communications	100.0
6	31 659	2006	Telefónica	Spain	O2 PLC	United Kingdom	Radiotelephone communications	100.0
7	29 404	2001	Deutsche Telekom	Germany	VoiceStream Wireless Corp	United States	Radiotelephone communications	100.0
8	26 438	2007	Enel	Italy	Endesa	Spain	Electric services	45.6
9	22 210	2007	Iberdrola	Spain	Scottish Power	United Kingdom	Electric services	100.0
10	21 811	2006	Grupo Ferrovial	Spain	BAA	United Kingdom	Airports and airport terminal services	100.0
11	14 889	2006	Kemble Water Ltd	Australia	Thames Water	United Kingdom	Water supply	100.0
12	14 365	2000	Vodafone AirTouch	United Kingdom	Airtel SA (AirTouch, Banco Santander, Ineuropa, Fenosa, Fecsa, 8 Others)	Spain	Communications services, nec	43.5
13	14 332	2006	BB Mobile Corp	Japan	Vodafone KK	Japan	Telephone communications, except radiotelephone	97.6
14	13 843	2005	Suez	France	Electrabel	Belgium	Electric services	50.0
15	13 813	2001	British Telecommunications	United Kingdom	Viag Interkom	Germany	Telephone communications, except radiotelephone	45.0
16	13 629	1999	Deutsche Telekom	Germany	One 2 One	United Kingdom	Radiotelephone communications	100.0
17	12 748	2007	Vodafone Group	United Kingdom	Hutchison Essar	India	Telephone communications, except radiotelephone	67.0
18	12 600	1999	Scottish Power	United Kingdom	PacifiCorp	United States	Electric services	100.0
19	11 050	1998	Texas Utilities Co	United States	Energy Group	United Kingdom	Electric services	100.0
20	11 004	2000	NTL Inc	United States	CWC ConsumerCo (Cable & Wireless Communications PLC/C&W PLC)	United Kingdom	Telephone communications, except radiotelephone	100.0
21	10 335	2002	China Mobile (Hong Kong) Ltd	Hong Kong, China	China Mobile Hong Kong (BVI) Ltd - Mobile Telecommunications Cos. (8)	China	Telephone communications, except radiotelephone	100.0
22	10 213	2000	Telefónica	Spain	Telecomunicações de Sao Paulo	Brazil	Telephone communications, except radiotelephone	74.3
23	10 063	1999	Global Crossing Ltd	Bermuda	Frontier Corp	United States	Telephone communications, except radiotelephone	100.0
24	9 805	2001	NTT DoCoMo	Japan	AT&T Wireless Group	United States	Radiotelephone communications	16.0
25	9 400	2000	BellSouth GmbH (KPN, BellSouth)	Netherlands / United States	E-Plus Mobilfunk (Oteio Communications)	Germany	Radiotelephone communications	77.5

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

Annex table A.III.4. The world's 100 largest infrastructure TNCs, ranked by foreign assets, 2006
(Millions of dollars and number of employees)

Rank	Corporation	Home economy	Assets		Sales		Employment	Industry
			Foreign	Total	Foreign	Total	Total	
1	Vodafone Group	United Kingdom	126 190	144 366	32 641	39 021	63 394	Telecom
2	Electricité de France	France	111 916	235 857	33 879	73 933	155 968	Electricity
3	Telefónica	Spain	101 891	143 530	41 093	66 367	224 939	Telecom
4	E.ON	Germany	94 304	167 565	32 154	85 007	80 612	Electricity
5	Deutsche Telekom	Germany	93 488	171 421	36 240	76 963	248 800	Telecom
6	France Télécom	France	90 871	135 876	30 448	64 863	191 036	Telecom
7	Suez	France	75 151	96 714	42 002	55 563	139 814	Electricity and water
8	Hutchison Whampoa	Hong Kong, China	70 679	87 146	28 619	34 428	220 000	Seaports, electricity and telecom
9	RWE Group	Germany	68 202	123 080	22 142	55 521	68 534	Electricity and water
10	Grupo Ferrovial	Spain	60 173	72 409	15 500	9 089	88 902	Roads
11	Veolia Environnement	France	32 404	52 843	19 091	35 905	298 498	Water
12	Endesa	Spain	31 389	71 234	13 160	25 819	26 758	Electricity
13	Vivendi Inc	France	28 533	56 694	9 625	25 146	34 694	Telecom
14	Liberty Global Inc	United States	25 479	25 569	6 349	6 488	20 500	Telecom
15	Vattenfall	Sweden	24 643	47 079	11 868	18 406	32 308	Electricity
16	National Grid	United Kingdom	23 526	55 730	7 908	15 998	18 776	Electricity
17	TeliaSonera	Sweden	23 152	29 047	7 439	12 342	28 528	Telecom
18	AES Corp.	United States	20 522	31 163	9 623	12 299	32 000	Electricity
19	SingTel	Singapore	18 678	21 288	5 977	8 575	19 000	Telecom
20	Gaz de France	France	17'806	56'511	13'599	34'678	50'244	Natural gas
21	Telenor	Norway	17 475	23 702	9 018	14 201	35 600	Telecom
22	Fortum	Finland	16 292	22 177	4 165	5 634	8 134	Electricity
23	Nortel Networks	Canada	16'212	18'979	10'698	11'418	33'760	Telecom
24	Duke Energy Corp.	United States	16 058	68 700	4 474	15 184	25 600	Electricity
25	KPN	Netherlands	14 923	27 997	4 363	15 126	26 287	Telecom
26	Abertis ^b	Spain	14 666	24 692	2 087	4 276	10 763	Roads
27	BT Group	United Kingdom	13 638	47 419	5 000	33 908	106	Telecom
28	EDP Energias de Portugal	Portugal	.. ^a	32 400	5 351	13 648	13 333	Electricity
29	Verizon Communications	United States	10 708	188 804	3 451	88 144	242 330	Telecom
30	AP Moller-Maersk	Denmark	10 705	54 772	24 096	46 833	108 530	Seaports
31	SES	Luxembourg	10 587	10 636	2 130	2 130	1 661	Telecom
32	DP World	United Arab Emirates	.. ^a	17 470	.. ^a	3 487	30 000	Seaports
33	Spectra Energy Corp.	United States	10 525	20 345	3 151	4 532	4 950	Natural gas
34	International Power Plc	United Kingdom	10 517	18 402	3 621	6 960	3 671	Electricity
35	China Ocean Shipping (Group)	China	10 397	18 711	8 777	15 737	69 549	Seaports
36	Telecom Italia	Italy	9 824	116 758	10 508	41 187	83 209	Telecom
37	América Móvil	Mexico	8 701	29 473	9 617	21 526	39 876	Telecom
38	Canadian National Railways Co.	Canada	8 525	24 004	2 234	7 716	21 685	Railroads
39	Skanska	Sweden	8 306	10 132	14 318	18 355	56 085	Roads
40	Mobile Telecommunications Co.	Kuwait	7 968	12 027	3 373	4 185	975	Telecom
41	PSA International	Singapore	.. ^a	17 206	1 626	3 736	..	Seaports
42	TDC A/S	Denmark	7 857	14 193	4 042	8 390	19 011	Telecom
43	Hochtief	Germany	7 168	10 775	17 644	20 449	46 847	Roads
44	Portugal Telecom	Portugal	7 143	17 148	3 039	8 235	32 058	Telecom
45	Vinci	France	6 822	63 576	11 042	33 802	138 524	Roads
46	Macquarie Airports	Australia	6 782	13 342	908	1 462	..	Airports
47	Tele2	Sweden	6 747	8 940	5 060	7 351	5 285	Telecom
48	CLP Holdings	Hong Kong, China	6 096	15 965	1 283	4 951	6 087	Electricity
49	Iberdrola	Spain	6 061	41 984	3 031	14 528	16 155	Electricity
50	Teléfonos de México	Mexico	5 790	24 265	4 295	16 084	76 394	Telecom
51	Deutsche Bahn	Germany	5 615	61 501	13 801	39 629	237 299	Railroads
52	Unión Fenosa ^b	Spain	5 512	20 973	3 252	7 987	17 765	Electricity
53	AT&T Inc	United States	.. ^a	270 634	.. ^a	63 055	302 770	Telecom
54	Bouygues	France	5 332	38 992	10 318	34 822	123 518	Roads and telecom

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Annex table A.III.4. The world's 100 largest infrastructure TNCs, ranked by foreign assets, 2006 (concluded)
(Millions of dollars and number of employees)

Rank	Corporation	Home economy	Assets		Sales		Employment	Industry
			Foreign	Total	Foreign	Total	Total	
55	Centrica	United Kingdom	5 278	21 241	8 838	32 195	33 933	Natural gas
56	YTL Power	Malaysia	5 273	8 423	726	1 556	6 232	Water and electricity
57	Orient Overseas (International)	Hong Kong, China	4 893	5 600	1 516	4 610	6 763	Seaports
58	Orascom Telecom	Egypt	.. ^a	8 635	.. ^a	4 435	..	Telecom
59	Gas Natural	Spain	4 578	17 447	3 668	13 645	6 692	Natural gas
60	Transcanada Corp.	Canada	4 540	22 264	1 368	6 462	2 350	Natural gas
61	PPL Corp.	United States	4 224	19 747	1 347	6 899	12 620	Electricity
62	Grupo Agbar	Spain	3 806	8 029	855	4 014	26 998	Water
63	Babcock & Brown Infrastructure Group	Australia	3 729	5 523	441	562	..	Seaports, telecom and electricity
64	Atel - Aare Tessin	Switzerland	3 715	7 511	8 100	9 285	8 668	Electricity
65	Public Service Enterprise Group Inc	United States	3 708	28 158	586	12 164	10 768	Electricity
66	MTN Group	South Africa	3 633	13 905	3 582	7 402	14 067	Telecom
67	Cable & Wireless	United Kingdom	3 460	8 142	2 102	5 603	14 325	Telecom
68	Telstra Corp.	Australia	3 127	26 876	1 306	16 902	44 452	Telecom
69	NII Holdings Inc	United States	3 110	3 111	2 370	2 371	7 749	Telecom
70	OTE Hellenic Telecommunications	Greece	.. ^a	16 379	.. ^a	7 768	..	Telecom
71	Keppel Corp.	Singapore	2 969	9 009	2 006	4 956	29 185	Electricity
72	Grupo ACS	Spain	2 753	33 248	3 011	18 572	..	Airports and roads
73	Telekom Malaysia	Malaysia	2 748	11 849	1 221	4 644	35 824	Telecom
74	Millicom International Cellular	Luxembourg	2 515	2 620	1 245	1 641	3 243	Telecom
75	Enka Insaat ve Sanayi	Turkey	2 612	5 537	2 110	4 030	25 000	Roads and electricity
76	Obrascon Huarte Lain	Spain	.. ^a	7 250	1 800	4 323	12 263	Roads
77	Cofide-CIR Group	Italy	2 411	7 713	1 217	5 455	11 119	Electricity
78	Colt Telecom Group	Luxembourg	2 400	2 400	2 375	2 375	4 096	Telecom
79	Edison International	United States	2 296	35 238	..	12 622	16 139	Electricity
80	Sistema	Russian Federation	2 290	20 056	2 456	11 158	92 000	Telecom
81	Enel	Italy	.. ^a	71 924	6 736	49 445	58 548	Electricity
82	EnBW Energie Baden-Württemberg ^c	Germany	2 150	36 995	1 165	17 431	21 148	Electricity
83	Vimpel Communications	Russian Federation	2 103	8 436	480	5 000	21 303	Telecom
84	Enbridge Inc	Canada	2 067	18 179	2 299	10 645	4 995	Natural gas
85	Maxis	Malaysia	2 024	4 367	341	2 182	3 100	Telecom
86	Kansas City Southern	United States	1 928	4 637	774	1 660	6 470	Railroads
87	Sempra Energy Wataniya - National Mobile	United States	1 877	28 949	1 354	11 761	14 061	Natural gas
88	Telecommunications	Kuwait	1 851	2 477	865	1 480	3 600	Telecom
89	EVN ^d	Austria	1 802	7 404	879	2 624	9 798	Electricity
90	Tianjin Development Holdings	Hong Kong, China	1 664	1 702	346	346	4 200	Electricity
91	Canadian Pacific Railway	Canada	1 659	9 810	866	3 804	15 327	Railroads
92	First Group	United Kingdom	1 642	3 626	1 433	5 257	70 747	Railroads
93	CEZ	Czech Republic	1 492	17 628	1 115	7 645	31 161	Electricity
94	BBA Aviation	United Kingdom	1 454	2 248	1 473	1 859	10 757	Airports
95	PCCW	Hong Kong, China	1 331	6 357	274	3 298	14 500	Telecom
96	NRG Energy Inc	United States	1 293	19 408	173	5 623	3 217	Electricity
97	CMS Energy Corp.	United States	1 248	15 371	670	6 810	8 640	Electricity
98	Terna Spa	Italy	1 236	9 134	247	1 687	3 555	Electricity
99	TransAlta Corp.	Canada	1 228	7 166	881	2 797	2 687	Electricity
100	Telekom Austria	Austria	1 169	9 898	2 000	6 276	15 428	Telecom

Source: UNCTAD.

Note: Data are missing for various companies. In some companies, foreign or domestic investors or holding companies may hold a minority share of more than 10%. Data on foreign employment were not available.

^a Data were not available; for the purposes of this ranking, the values were estimated using secondary sources of information.

^b Grupo ACS is a minority shareholder.

^c Electricité de France is a minority shareholder.

^d EnBW Energie Baden-Württemberg is a minority shareholder.

Annex table A.III.5. The 50 largest infrastructure TNCs of developing and transition economies, ranked by foreign assets, 2006

(Millions of dollars and number of employees)

Rank	Corporation	Home economy	Assets		Sales		Employment	Industry
			Foreign	Total	Foreign	Total	Total	
1	Hutchison Whampoa	Hong Kong, China	70 679	87 146	28 619	34 428	220 000	Seaports, electricity and telecom
2	SingTel	Singapore	18 678	21 288	5 977	8 575	19 000	Telecom
3	DP World	United Arab Emirates	.. ^a	17 470	..	3 487	30 000	Seaports
4	China Ocean Shipping (Group)	China	10 397	18 711	8 777	15 737	69 549	Seaports
5	América Móvil	Mexico	8 701	29 473	9 617	21 526	39 876	Telecom
6	Mobile Telecommunications Co.	Kuwait	7 968	12 027	3 373	4 185	975	Telecom
7	PSA International	Singapore	.. ^a	17 206	1 626	3 736	..	Seaports
8	CLP Holdings	Hong Kong, China	6 096	15 965	1 283	4 951	6 087	Electricity
9	Teléfonos de México	Mexico	5 790	24 265	4 295	16 084	76 394	Telecom
10	YTL Power	Malaysia	5 273	8 423	726	1 556	6 232	Water and electricity
11	Orient Overseas (International)	Hong Kong, China	4 893	5 600	1 516	4 610	6 763	Seaports
12	Orascom Telecom	Egypt	.. ^a	8 635	.. ^a	4 435	..	Telecom
13	MTN Group	South Africa	3 633	13 905	3 582	7 402	14 067	Telecom
14	Keppel Corp.	Singapore	2 969	9 009	2 006	4 956	29 185	Electricity
15	Telekom Malaysia	Malaysia	2 748	11 849	1 221	4 644	35 824	Telecom
16	Enka Insaat ve Sanayi	Turkey	2 612	5 537	2 110	4 030	25 000	Roads and electricity
17	Sistema	Russian Federation	2 290	20 056	2 456	11 158	92 000	Telecom
18	Vimpel Communications	Russian Federation	2 103	8 436	480	5 000	21 303	Telecom
19	Maxis	Malaysia	2 024	4 367	341	2 182	3 100	Telecom
20	Wataniya - National Mobile Telecommunications	Kuwait	1 851	2 477	865	1 480	3 600	Telecom
21	Tianjin Development Holdings	Hong Kong, China	1 664	1 702	346	346	4 200	Electricity
22	PCCW	Hong Kong, China	1 331	6 357	274	3 298	14 500	Telecom
23	China Communications Construction Co.	China	1 162	16 258	2 855	14 712	78 331	Roads
24	Hyundai Engineering & Construction	Korea, Republic of	.. ^a	6 141	1 247	5 860	3 474	Roads
25	Turkcell ^c	Turkey	1 092	5 950	158	4 750	8 199	Telecom
26	Sembcorp Industries	Singapore	1 071	4 947	2 858	5 286	12 748	Electricity
27	Bahrain Telecommunications - Batelco	Bahrain	622	1 276	106	623	2 486	Telecom
28	Hong Kong & China Gas Co.	Hong Kong, China	608	4 650	213	1 731	1 912	Natural gas
29	Unified Energy Systems	Russian Federation	514	58 477	1 083	33 994	469 300	Electricity
30	Murray & Roberts Holdings	South Africa	471	1 449	477	1 671	23 867	Roads
31	TAV Airports Holding	Turkey	430	1 774	.. ^a	494	8 146	Airports
32	NWS Holdings	Hong Kong, China	428	3 294	462	1 615	42 000	Roads, electricity, water and seaports
33	Tata Communication Ltd.	India	417	2 267	1 057	2 034	..	Telecom
34	Group Five	South Africa	353	658	306	822	10 234	Roads
35	UEM World	Malaysia	342	2 718	344	1 356	8 839	Roads
36	IJM Corporation Berhad	Malaysia	332	1 116	62	452	2 059	Roads
37	Telkom Ltd.	South Africa	327	9 257	241	7 726	..	Telecom
38	International Container Terminal Services, Inc	Philippines	287	385	105	242	1 229	Seaports
39	China Enersave	Singapore	269	303	12	17	..	Electricity
40	Allied Technologies	South Africa	267	478	89	979	3 308	Telecom
41	SK Telecom Co.	Korea, Republic of	.. ^a	17 459	.. ^a	11 858	4 349	Telecom
42	Gamuda	Malaysia	188	1 063	56	335	1 232	Roads
43	Mechmar Corp. (Malaysia)	Malaysia	170	191	114	132	..	Electricity
44	Muhibbah Engineering (M) Berhad	Malaysia	157	391	196	308	..	Roads
45	Elswedey Cables Holding Co.	Egypt	142	855	120	1 006	..	Electricity
46	Electricity Generating Public Co.	Thailand	142	1 989	19	498	973	Electricity
47	Bharti Airtel	India	141	4 454	237	2 617	..	Telecom
48	Suzlon Energy	India	134	1 082	70	862	5 300	Electricity
49	Samart I-Mobile Public Co.	Thailand	130	196	493	676	1 279	Telecom
50	Hyflux Limited	Singapore	118	287	67	85	..	Water

Source: UNCTAD.

Note: Data are missing for various companies. In some companies, foreign or domestic investors or holding companies may hold a minority share of more than 10%. Data on foreign employment were not available.

^a Data were not available; for the purposes of this ranking, the values were estimated using secondary sources of information.

Annex table A.III.6. The 50 largest foreign investors in infrastructure commitments in Africa, 1996–2006
(Millions of dollars)

Rank	Corporation	Home economy	Total	Energy	Telecom	Transport	Water
1	Vivendi	France	6 113	-	6 113	-	-
2	Mobile Telecommunications Co.	Kuwait	4 989	-	4 989	-	-
3	France Telecom	France	4 945	-	4 945	-	-
4	MTN Group	South Africa	4 555	-	4 555	-	-
5	Bouygues	France	4 550	-	-	4 485	65
6	Orascom	Egypt	3 777	-	3 777	-	-
7	Bombardier	Canada	3 483	-	-	3 483	-
8	Vodafone	United Kingdom	3 455	-	3 455	-	-
9	Emirates Telecommunications Corp.	United Arab Emirates	3 411	-	3 411	-	-
10	Suez	France	3 048	3 048	-	-	-
11	Portugal Telecom	Portugal	2 474	-	2 474	-	-
12	Veolia Environnement	France	2 368	2 353	-	-	15
13	Dubai Holding	United Arab Emirates	2 250	-	2 250	-	-
14	Wataniya Telecom	Kuwait	2 069	-	2 069	-	-
15	Telefónica	Spain	1 945	-	1 945	-	-
16	AP Moller-Maersk	Denmark	1 884	-	-	1 884	-
17	ABB	Switzerland	1 757	1 723	-	34	-
18	CMS Energy Corp.	United States	1 610	1 610	-	-	-
19	Gulf Investment Corp.	Kuwait	1 225	-	1 225	-	-
20	Mubadala Development Co.	United Arab Emirates	1 150	1 150	-	-	-
21	SNC Lavalin	Canada	1 150	1 150	-	-	-
22	Lanun Engineering	Saudi Arabia	1 108	-	1 108	-	-
23	Saudi Oger Ltd	Saudi Arabia	1 108	-	1 108	-	-
24	Globeleq	United Kingdom	899	899	-	-	-
25	Vodacom ^a	South Africa	844	-	844	-	-
26	Carthage Consortium	United Kingdom	844	-	844	-	-
27	Sheltam Rail Company	South Africa	808	-	-	808	-
28	AES Corp.	United States	772	772	-	-	-
29	Hydro-Quebec International	Canada	689	689	-	-	-
30	Tanjong	Malaysia	678	678	-	-	-
31	Aga Khan Fund	Switzerland	674	674	-	-	-
32	YTL Corp.	Malaysia	600	600	-	-	-
33	Investcom Holding	Luxembourg	535	-	535	-	-
34	DP World	United Arab Emirates	480	-	-	480	-
35	Egypt Telecom	Egypt	465	-	465	-	-
36	ConocoPhillips	United States	462	462	-	-	-
37	ENI	Italy	462	462	-	-	-
38	Grupo ACS	Spain	450	-	-	450	-
39	Compañía Española de Financiación del Desarrollo	Spain	450	-	-	450	-
40	Stocks & Stocks	South Africa	426	-	-	426	-
41	Edison International	United States	414	414	-	-	-
42	Trans Century Ltd.	Kenya	404	-	-	404	-
43	Siemens	Germany	366	366	-	-	-
44	Endesa	Spain	360	360	-	-	-
45	Econet Wireless Ltd.	Botswana	300	-	300	-	-
46	Electricity Supply Board	Ireland	294	294	-	-	-
47	Electricité de France	France	283	283	-	-	-
48	Alliance Energy	United States	275	275	-	-	-
49	National Grid	United Kingdom	274	274	-	-	-
50	Abengoa	Spain	270	-	-	-	270

Source: UNCTAD's calculations, based on the World Bank's PPI Database.

^a Affiliate of Vodafone (United Kingdom).

Annex table A.III.7. The 50 largest foreign investors in infrastructure commitments in Asia, 1996–2006
(Millions of dollars)

Rank	Corporation	Home economy	Total	Energy	Telecom	Transport	Water
1	China Light and Power Ltd.	Hong Kong, China	4 924	4 924	-	-	-
2	Electricité de France	France	4 530	4 530	-	-	-
3	Hutchison Whampoa	Hong Kong, China	3 762	-	-	3 762	-
4	Siemens	Germany	3 602	3 278	-	324	-
5	Telekom Malaysia	Malaysia	3 575	-	3 575	-	-
6	AP Moller-Maersk	Denmark	2 830	-	-	2 830	-
7	AES Corp.	United States	2 814	2 814	-	-	-
8	NWS Holdings Ltd.	Hong Kong, China	2 626	435	-	1 718	474
9	Cheung Kong Infrastructure Holdings ^a	Hong Kong, China	2 584	1 606	-	904	75
10	Suez	France	2 532	1 379	-	89	1 064
11	Khazanah Nasional	Malaysia	2 337	-	2 337	-	-
12	Sumitomo Corp.	Japan	2 280	2 280	-	-	-
13	Telenor	Norway	2 080	-	2 080	-	-
14	J-Power	Japan	1 851	1 851	-	-	-
15	Veolia	France	1 798	-	-	-	1 798
16	DP World	United Arab Emirates	1 791	-	-	1 791	-
17	P&O Ports ^b	United Kingdom	1 787	-	-	1 787	-
18	Marubeni Corp.	Japan	1 786	1 678	-	-	108
19	Hopewell Holdings	Hong Kong, China	1 727	-	-	1 727	-
20	YTL Corp.	Malaysia	1 708	1 708	-	-	-
21	Abu Dhabi Group	United Arab Emirates	1 693	-	1 693	-	-
22	PSEG Global Inc.	United States	1 593	1 593	-	-	-
23	InterGen	United States	1 590	1 590	-	-	-
24	International Power	United Kingdom	1 403	1 403	-	-	-
25	IJM Corp.	Malaysia	1 398	315	-	1 024	59
26	British Gas (BG Group)	United Kingdom	1 390	1 390	-	-	-
27	Singapore Telecom	Singapore	1 369	-	1 369	-	-
28	Bidvest Group	South Africa	1 313	-	-	1 313	-
29	MTR Corporation	Hong Kong, China	1 310	-	-	1 310	-
30	EGAT	Thailand	1 250	1 250	-	-	-
31	Italian-Thai Development Public Company	Thailand	1 250	1 250	-	-	-
32	Road King Infrastructure	Hong Kong, China	1 168	-	-	1 168	-
33	Genting Group	Malaysia	1 145	1 145	-	-	-
34	Sithe Global Power	United States	1 100	1 100	-	-	-
35	Globeleq	United Kingdom	1 002	1 002	-	-	-
36	Maxis Communications	Malaysia	999	-	999	-	-
37	France Télécom	France	963	-	963	-	-
38	MTN Group	South Africa	920	-	920	-	-
39	Modern Terminals Ltd.	Hong Kong, China	858	-	-	858	-
40	KEPCO	Korea, Rep. of	846	846	-	-	-
41	Texaco ^c	United States	845	845	-	-	-
42	North American Coal Corp.	United States	814	814	-	-	-
43	Ch Karnchang Co. Ltd.	Thailand	800	800	-	-	-
44	Ratchaburi Electricity Generating Holding	Thailand	800	800	-	-	-
45	Airport Authority of Hong Kong	Hong Kong, China	759	-	-	759	-
46	Lippo Group	Indonesia	755	755	-	-	-
47	CMS Energy Corp.	United States	720	720	-	-	-
48	Mitsubishi	Japan	710	710	-	-	-
49	PSA Corp.	Singapore	707	-	-	707	-
50	Chubu Electric Power Co.	Japan	688	688	-	-	-

Source: UNCTAD's calculations, based on the World Bank's PPI Database.

^a Affiliate of Hutchison Whampoa.

^b Affiliate of DP World.

^c Affiliate of Chevron.

Annex table A.III.8. The 50 largest foreign investors in infrastructure commitments in Latin America and the Caribbean, 1996–2006

(Millions of dollars)

Rank	Corporation	Home economy	Total	Energy	Telecom	Transport	Water
1	Telefónica	Spain	24 785	-	24 785	-	-
3	AES Corp.	United States	12 441	12 441	-	-	-
4	Telecom Italia	Italy	12 189	-	12 189	-	-
5	América Móvil	Mexico	10 282	-	10 282	-	-
6	Iberdrola	Spain	8 987	8 775	-	-	213
7	Telmex	Mexico	7 925	-	7 925	-	-
8	Endesa	Spain	6 806	6 806	-	-	-
9	Portugal Telecom	Portugal	6 650	-	6 650	-	-
10	Suez	France	5 389	3 794	-	280	1 315
11	UBS	Switzerland	5 036	4 761	-	275	-
12	Grupo ACS	Spain	4 623	378	-	4 103	142
13	Unión Fenosa	Spain	4 495	2 930	-	1 565	-
14	Electricidade de Portugal	Portugal	4 162	4 162	-	-	-
15	Agbar	Spain	4 032	-	-	-	4 032
16	Duke Energy Corp.	United States	3 513	3 513	-	-	-
17	Enersis ^a	Chile	3 456	3 456	-	-	-
18	Endesa (Chile) ^a	Chile	3 407	3 407	-	-	-
19	Brisa	Portugal	3 136	-	-	3 136	-
20	Impregilo	Italy	2 925	381	-	2 463	80
21	Obrascon Huarte Lain	Spain	2 870	-	-	2 794	76
22	Electricité de France	France	2 535	2 535	-	-	-
23	Kansas City Southern Industries	United States	2 345	-	-	2 345	-
24	CMS Energy Corp.	United States	2 273	2 273	-	-	-
25	Sacyr Vallehermoso	Spain	2 040	-	-	2 029	12
26	Ashmore Energy International	United States	1 803	1 803	-	-	-
28	Aeropuertos Españoles y Navegación Aérea	Spain	1 774	-	-	1 774	-
30	Petrobras	Brazil	1 492	1 492	-	-	-
31	El Paso Corp.	United States	1 454	1 454	-	-	-
32	Cable and Wireless	United Kingdom	1 449	-	1 449	-	-
33	Global Village Telecom	Netherlands	1 432	-	1 432	-	-
34	Grupo Acciona	Spain	1 391	-	-	1 391	-
35	National Grid	United Kingdom	1 324	220	1 104	-	-
36	Skanska	Sweden	1 294	494	-	800	-
37	France Télécom	France	1 285	-	1 285	-	-
38	Elecnor	Spain	1 268	1 268	-	-	-
40	InterGen	United States	1 208	1 208	-	-	-
41	Digicel	Bermuda	1 106	-	1 106	-	-
42	Sprint	United States	1 104	-	1 104	-	-
43	Construtora Andrade Gutierrez	Brazil	1 085	300	-	785	-
44	Interconexión Eléctrica SA	Colombia	1 071	1 071	-	-	-
45	Total	France	1 059	1 059	-	-	-
46	Grupo Ferrovial	Spain	1 050	-	-	1 050	-
47	Alcoa	United States	1 039	1 039	-	-	-
48	Abengoa	Spain	1 013	1 013	-	-	-
49	Globeleq	United Kingdom	986	986	-	-	-
50	Camuzzi Gazometri	Italy	955	954	-	-	1

Source: UNCTAD's calculations, based on the World Bank's PPI Database.

^a Affiliate of Endesa (Spain).

Annex table A.V.1. Arbitral awards in known infrastructure investment disputes, 1997–2007

Year of claim	Host country	Parties to the dispute (Venue and case number)	Industry	Nature of dispute	Damages awarded (\$ million)	Date of the award	Legal issues
1997	Argentina	Compañía de Aguas del Aconquija S.A. and Vivendi Universal v. Argentine Republic (ICSID Case No. ARB/97/3)	Water and sewage concession	A series of decrees, resolutions, laws, and legal opinions of the Argentine Republic and its constituent Province of Tucuman, which were allegedly designed to undermine the operation of a 30-year concession contract.	105	Award (I) issued on 21 November 2000; Annulment decision issued on 3 July 2002; Award (II) issued on 20 August 2007	Compensation, expropriation (indirect), fair and equitable treatment, full protection and security, international minimum standard, State contracts, State responsibility
2000	Morocco	Consortium RFCC v. Kingdom of Morocco (ICSID Case No. ARB/00/6)	Highway project	Alleged breach of a concession contract for the construction of a highway.	Claim dismissed	Award issued on 22 December 2003; Annulment Decision issued on 18 January 2006	Expropriation, fair and equitable treatment, most-favoured-nation (MFN) treatment, national treatment
2000	Sri Lanka	Mihaly International Corp v. Democratic Socialist Republic of Sri Lanka (ICSID Case No. ARB/00/2)	Power plant	Unsuccessful conclusion of contract between Sri Lanka and the investor for the building, ownership and operation of the power station.	Claim dismissed	Award issued on 15 March 2002	Tribunal declined jurisdiction
2000	United States	ADF Group Inc. v. United States (ICSID Case No. ARB(AF)/00/1)	Highway project	Federal Surface Transportation Assistance Act of 1982 and implementing regulations requiring that Federally-funded State highway projects use domestic steel.	Claim dismissed	Award issued on 9 January 2003	Compensation, exceptions/exemptions, fair and equitable treatment, international minimum standard, MFN treatment, national treatment, State responsibility, treaty's scope of application
2001	Argentina	Azurix I v. Argentine Republic (ICSID Case No. ARB/01/12)	Water and sewage concession	Argentina's omission as well as the actions and omissions of its political subdivisions and instruments.	165.2	Award issued on 14 July 2006	Compensation, exceptions/exemptions, expropriation (indirect), fair and equitable treatment, full protection and security, international minimum standard, State contracts, State responsibility
2001	Latvia	Nykomb Synergetics v. Republic of Latvia (Stockholm rules)	Electric power and heat production project	Dispute over the purchase price to be paid by Latvenergo, the State company involved in the production, purchase and distribution of electric power in Latvia.	3	Award issued on 16 December 2003	Compensation, expropriation (indirect), State responsibility
2002	Czech Republic	William Nagel v. Czech Republic (SSC Case 49/2002)	Mobile telephone licence	The Czech authorities allegedly backtracked on a commitment to award the investor a GSM mobile phone licence	Claim dismissed	Award issued in 2003 (not public)	Expropriation (indirect), fair and equitable treatment, national treatment
2002	Jordan	Salini Costruttori S.p.A. and Italstrade S.p.A. v. the Hashemite Kingdom of Jordan (ICSID Case No. ARB/02/13)	Dam construction	Disagreement between the Government of Jordan and the investor as to amount of the credits to be paid to the investor.	Claim dismissed	Award issued on 31 January 2006	Compensation, fair and equitable treatment, MFN treatment, State contracts, State responsibility
2002	Lebanon	France Telecom v. Republic of Lebanon	GSM mobile telephone network	Termination of a contract to operate a GSM mobile telephone network.	266	Award issued on 22 February 2005 (not public)	Expropriation, fair and equitable treatment
2002	Turkey	PSEG Global Inc. and Konya Ilgin Elektrik Üretim ve Ticaret Limited Sirketi v. Republic of Turkey (ICSID Case No. ARB/02/5)	Electric power generating station project	The Government's alleged action and inaction to compromise the investment (by depriving the investor of the Treasury guarantee, long-term power purchase agreement and the Fund Agreement).	9.1	Award issued on 19 January 2007	Compensation, expropriation (indirect), fair and equitable treatment
2002	United Arab Emirates	Hussein Nauman Soufraki v. United Arab Emirates (ICSID Case No. ARB/02/7)	Port concession	Concession agreement between the Dubai Department of Ports and Customs and the investor.	Claim dismissed	Decision on Jurisdiction issued on 7 July 2004; Decision of the Ad Hoc Committee on Annulment issued on 13 August 2007	Tribunal declined jurisdiction
2003	Algeria	Consortium Groupement L.E.S.I. - DIPENTA v. Algeria (ICSID Case No. ARB/03/8)	Dam construction	Alleged failure to guarantee protection and security to the investment, and unlawful expropriation of the investment.	Claim dismissed	Decision on Jurisdiction issued on 10 January 2005	Tribunal declined jurisdiction
2003	Ecuador	M.C.I. Power Group, L.C. and New Turbine, Inc. v. Republic of Ecuador, (ICSID Case No. ARB/03/6)	Electric power generation project	Revocation of the investor's operating permit.	Claim dismissed	Award issued on 31 July 2007	Expropriation (direct), fair and equitable treatment, State responsibility

Annex table A.V.1. Arbitral awards in known infrastructure investment disputes, 1997–2007 (concluded)

Year of claim	Host country	Parties to the dispute (Venue and case number)	Industry	Nature of dispute	Damages awarded (\$ million)	Date of the award	Legal issues
2003	France/ United Kingdom	Eurotunnel Group v. France and the United Kingdom	Construction project	Alleged failure by the two Governments to maintain conditions of normal security and public order in and around the Eurotunnel terminal.	Not determined	Award issued on 30 January 2007	Treaty of Canterbury.
2003	Hungary	ADC Affiliate Limited and ADC & ADMC Management Limited v. Republic of Hungary (ICSID Case No. ARB/03/16)	Airport project	Alleged takeover by the Government of Hungary of all activities of the investor's company at Budapest airport.	75	Award issued on 2 October 2006	Compensation, expropriation (direct and indirect), fair and equitable treatment, full protection and security, State contracts, State responsibility, treaty's scope of application.
2003	Philippines	Fraport AG Frankfurt Airport Services Worldwide v. Republic of the Philippines (ICSID Case No. ARB/03/25)	Construction of airport terminal	Annulment of contract for the construction of an airport terminal.	Claim dismissed	Award issued on 16 August 2007	Tribunal declined jurisdiction
2004	Hungary	Telenor Mobile Communications AS v. Republic of Hungary (ICSID Case No. ARB/04/15)	Telecom concession	Host Government's measures allegedly forcing the investor to subsidize firms in the fixed-line segment of the business.	Claim dismissed	Decision on Jurisdiction issued on 13 September 2006	Tribunal declined jurisdiction
2005	Lithuania	Parkerings Compagniet AS v. Republic of Lithuania (ICSID Case No. ARB/05/8)	Public parking concession	Termination of the contract for the construction and operation of a public parking system.	Claim dismissed	Award issued on 11 September 2007	Compensation, expropriation (indirect), fair and equitable treatment, full protection and security, State contracts

Source: UNCTAD.

Annex table A.V.2. Bilateral and multilateral donor commitments to selected infrastructure industries, 1995–2006
(Millions of dollars)

Industry/region	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Total
Communications													
Africa	155.3	296.9	211.0	180.3	78.5	166.2	80.4	87.1	113.0	96.2	59.0	92.1	1 616.0
Latin America and the Caribbean	37.3	14.6	4.4	20.2	20.7	15.8	78.3	20.0	37.4	23.8	18.4	27.1	318.0
Asia	441.4	385.8	216.6	271.8	170.3	217.0	140.4	101.0	312.3	635.6	240.9	198.8	3 331.9
Total	634.0	697.4	432.1	472.3	269.4	399.0	299.2	208.1	462.7	755.6	318.2	317.9	5 266.0
Energy													
Africa	963.2	549.4	829.3	776.5	221.2	365.8	963.2	682.0	909.6	908.9	1 195.8	1 006.3	9 371.2
Latin America and the Caribbean	182.1	598.0	246.3	110.9	230.7	100.0	309.2	199.2	79.2	18.9	67.4	448.0	2 590.0
Asia	5 012.9	2 819.6	3 432.5	2 377.6	1 672.5	1 366.6	1 217.9	2 323.6	2 698.5	5 107.5	2 821.6	2 859.4	3 3710.2
Total	6 158.1	3 966.9	4 508.2	3 265.1	2 124.4	1 832.4	2 490.4	3 204.8	3 687.3	6 035.3	4 084.8	4 313.7	4 5671.4
Transport and storage													
Africa	837.0	1 139.9	1 264.3	1 829.2	1 959.0	1 104.9	1 441.8	1 084.1	1 997.9	2 188.2	2 501.0	2 612.9	19 960.1
Latin America and the Caribbean	194.0	548.5	259.1	377.2	487.4	362.1	270.3	164.9	156.3	296.0	459.4	326.1	3 901.3
Asia	4 352.1	5 104.9	3 560.9	3 220.2	3 530.6	3 597.8	3 037.5	2 278.4	1 973.8	3 720.0	3 237.2	3 560.4	41 173.8
Total	5 383.1	6 793.3	5 084.4	5 426.6	5 977.0	5 064.7	4 749.6	3 527.4	4 128.1	6 204.2	6 197.5	6 499.4	65 035.2
Water supply and sanitation													
Africa	1 146.9	1 149.8	1 112.2	1 021.4	672.3	716.7	1 133.4	624.2	989.1	1 883.3	1 406.5	2 267.2	14 122.9
Latin America and the Caribbean	458.6	459.6	749.1	222.6	436.0	836.0	115.5	146.2	205.3	382.5	240.5	503.7	4 755.7
Asia	1 572.8	1 955.2	1 556.0	1 620.9	1 171.0	1 832.4	1 650.1	1 281.5	1 876.5	2 267.8	3 884.0	3 363.6	24 031.7
Total	3 178.4	3 564.6	3 417.3	2 864.9	2 279.4	3 385.1	2 899.0	2 051.9	3 070.9	4 533.6	5 530.9	6 134.5	42 910.4
All industries													
Africa	3 102.3	3 136.0	3 416.9	3 807.4	2 931.0	2 353.6	3 618.8	2 477.4	4 009.7	5 076.6	5 162.3	5 978.4	45 070.3
Latin America and the Caribbean	872.0	1 620.7	1 258.9	731.0	1 174.9	1 313.9	773.4	530.3	478.3	721.2	785.6	1 304.9	11 565.0
Asia	11 379.2	10 265.5	8 766.1	7 490.5	6 544.3	7 013.7	6 046.0	5 984.5	6 861.0	11 730.9	10 183.6	9 982.2	102 247.6
Total	15 353.5	15 022.2	13 441.9	12 028.9	10 650.2	10 681.2	10 438.2	8 992.3	11 349.0	17 528.7	16 131.5	17 265.5	158 882.9

Source: UNCTAD, based on OECD *International Development Statistics* database, www.oecd.org/dac.

Note: The table is based on and uses OECD DAC terminology. Bilateral donor commitments by members of the OECD Development Assistance Committee (DAC): Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom, United States, and the Commission of the European Communities. Multilateral contributions are those made to a recipient institution, which (i) conducts all or part of its activities in favour of development; (ii) is an international agency, institution or organization whose members are governments, or a fund managed autonomously by such an agency; and (iii) pools contributions so that they lose their identity and become an integral part of its financial assets.

DEFINITIONS AND SOURCES

A. General definitions

1. Transnational corporations

Transnational corporations (TNCs) are incorporated or unincorporated enterprises comprising parent enterprises and their foreign affiliates. A parent enterprise is defined as an enterprise that controls assets of other entities in countries other than its home country, usually by owning a certain equity capital stake. An equity capital stake of 10% or more of the ordinary shares or voting power for an incorporated enterprise, or its equivalent for an unincorporated enterprise, is normally considered the threshold for the control of assets.¹ A foreign affiliate is an incorporated or unincorporated enterprise in which an investor, that is a resident in another economy, owns a stake that permits a lasting interest in the management of that enterprise (an equity stake of 10% for an incorporated enterprise, or its equivalent for an unincorporated enterprise). In *WIR*, subsidiary enterprises, associate enterprises and branches – defined below – are all referred to as foreign affiliates or affiliates.

- A *subsidiary* is an incorporated enterprise in the host country in which another entity directly owns more than a half of the shareholder's voting power, and has the right to appoint or remove a majority of the members of the administrative, management or supervisory body.
- An *associate* is an incorporated enterprise in the host country in which an investor owns a total of at least 10%, but not more than half, of the shareholders' voting power.
- A *branch* is a wholly or jointly owned unincorporated enterprise in the host country which is one of the following: (i) a permanent establishment or office of the foreign investor; (ii) an unincorporated partnership or joint venture between the foreign direct investor and one or more third parties; (iii) land, structures (except structures owned by government entities), and /or immovable equipment and objects directly owned by a foreign resident; or (iv) mobile equipment (such as ships, aircraft, gas- or oil-drilling rigs) operating within a country, other than that of the foreign investor, for at least one year.

2. Foreign direct investment

Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent

enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate).² FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. FDI may be undertaken by individuals as well as business entities.

Flows of FDI comprise capital provided by a foreign direct investor to an FDI enterprise (either directly or through other related enterprises), or capital received from an FDI enterprise by a foreign direct investor. FDI has three components: equity capital, reinvested earnings and intra-company loans.

- *Equity capital* is the foreign direct investor's purchase of shares of an enterprise in a country other than its own.
- *Reinvested earnings* comprise the direct investor's share (in proportion to direct equity participation) of earnings not distributed as dividends by affiliates, or earnings not remitted to the direct investor. Such retained profits by affiliates are reinvested.
- *Intra-company loans or intra-company debt transactions* refer to short- or long-term borrowing and lending of funds between direct investors (parent enterprises) and affiliate enterprises.

FDI stock is the value of the share of their capital and reserves (including retained profits) attributable to the parent enterprise, plus the net indebtedness of affiliates to the parent enterprise. FDI flow and stock data used in *WIR* are not always defined as above, because these definitions are often not applicable to disaggregated FDI data. For example, in analysing geographical and industrial trends and patterns of FDI, data based on approvals of FDI may also be used because they allow a disaggregation at the country or industry level. Such cases are denoted accordingly.

3. Non-equity forms of investment

Foreign direct investors may also obtain an effective voice in the management of another business entity through means other than acquiring an equity stake. These are also non-equity forms of investment, which include, *inter alia*, subcontracting, management contracts, turnkey arrangements, franchising, licensing and product-sharing. Data on these forms of transnational corporate activity are usually not separately identified in balance-of-payments statistics. These statistics, however, usually present data on royalties and licensing

fees, defined as “receipts and payments of residents and non-residents for: (i) the authorized use of intangible non-produced, non-financial assets and proprietary rights such as trademarks, copyrights, patents, processes, techniques, designs, manufacturing rights, franchises, etc., and (ii) the use, through licensing agreements, of produced originals or prototypes, such as manuscripts, films, etc.”³

B. Availability, limitations and estimates of FDI data presented in WIR

FDI data have a number of limitations. This section therefore spells out how UNCTAD collects and reports such data. These limitations need to be kept in mind also when analyzing the size of TNC activities and their impact.

1. FDI flows

Data in **annex table B.1**, as well as in most of the tables in the text, are on a net basis (capital transactions’ credits less debits between direct investors and their foreign affiliates). Net decreases in assets (outward FDI) or net increases in liabilities (inward FDI) are recorded as credits (recorded with a positive sign in the balance of payments), while net increases in assets or net decreases in liabilities are recorded as debits (recorded with an opposite sign in the balance of payments). In the annex tables, as well as in the tables in the text, the opposite signs are reversed for practical purposes in the case of FDI *outflows*. Hence, FDI flows with a negative sign in *WIR* indicate that at least one of the three components of FDI (equity capital, reinvested earnings or intra-company loans) is negative and is not offset by positive amounts of the other components. These are instances of reverse investment or disinvestment.

UNCTAD regularly collects published and unpublished national official FDI data flows directly from central banks, statistical offices and other national authorities on an aggregated and disaggregated basis for its FDI/TNC database (www.unctad.org/fdistatistics). These data constitute the main source for the reported data on FDI. The data are further complemented by data obtained from: (i) other international organizations such as the International Monetary Fund (IMF), the World Bank and the Organisation for Economic Co-operation and Development (OECD); (ii) regional organizations such as the ASEAN Secretariat, European Bank for Reconstruction and Development (EBRD), Banque Centrale des Etats de l’Afrique de l’Ouest, Banque des Etats de l’Afrique Centrale and the Eastern Caribbean Central Bank; and (iii) UNCTAD’s own estimates.

For those economies for which data were not obtained from national official sources, or for those for which data were not available for the entire period of 1980-2007 covered in the *World Investment Report 2008 (WIR08)*, data from the IMF were obtained using the IMF’s *International Financial Statistics and Balance of Payments Statistics Online*, July 2008. If the data were not available from the above IMF data source, data from

the IMF’s *Country Report*, under Article IV of the IMF’s Articles of Agreements, were also used.

For those economies for which data were not obtained from national official sources and the IMF, or for those for which data were not available for the entire period of 1980-2007, data from the World Bank’s *World Development Indicators Online* were used. This report covers data up to 2006.

Data from the EBRD’s *Transition Report 2007* were utilized for those economies in the Commonwealth of Independent States for which data were not available from one of the above-mentioned sources.

Furthermore, data on the FDI outflows of the OECD, as presented in its publication, *Geographical Distribution of Financial Flows to Developing Countries*, and as obtained from its online databank, were used as a proxy for FDI inflows. As these OECD data are based on FDI outflows to developing economies from the member countries of the Development Assistance Committee (DAC), OECD,⁴ inflows of FDI to developing economies may be underestimated.

Finally, in those economies for which data were not available from either of the above-mentioned sources, or only partial data (quarterly or monthly) were available, estimates were made by:

- annualizing the data, if they are only partially available (monthly or quarterly) from either national official sources or the IMF;
- using the mirror data of FDI of major economies as proxy;
- using national and secondary information sources;
- using data on cross-border mergers and acquisitions (M&As) and their growth rates; and
- using specific factors.

A more detailed methodology for each economy on data collection, reporting and estimates for *WIR08* is provided in the *WIR* home page: www.unctad.org/wir. Longer time-series data are also available on its site or FDI statistics home page, www.unctad.org/fdistatistics.

2. FDI stocks

Annex table B.2, as well as some tables in the text, presents data on FDI stocks at book value or historical cost, reflecting prices at the time when the investment was made.

As in the case of flow data, UNCTAD regularly collects published and unpublished national official FDI stock data as well directly from central banks, statistical offices or national authorities on an aggregated and disaggregated basis for its FDI/TNC database (www.unctad.org/fdistatistics). These data constitute the main source for the reported data on FDI. The data are further complemented by data obtained from (i) other international organizations such as the IMF; (ii) regional organizations such as the ASEAN Secretariat; and (iii) UNCTAD’s own estimates.

For those economies for which data were not available from national official sources, or for those for which data were not available for the entire period of

1980-2007 covered in the *WIR08*, data from the IMF were obtained using the IMF's *Balance of Payments Statistics Online*, July 2008. Finally, in those economies for which data were not available from either of the above-mentioned sources, estimates were made by either adding up FDI flows over a period of time, or adding or subtracting flows to an FDI stock that had been obtained for a particular year from national official sources, or the IMF data series on assets and liabilities of direct investment, or by using the mirror data of FDI stock of major economies as proxy.

A more detailed methodology for each economy on data collection, reporting and estimates for *WIR08* is provided in the WIR home page: www.unctad.org/wir. Longer time-series data are also available on its site or FDI statistics home page: www.unctad.org/fdistatistics.

C. Data revisions and updates

All FDI data and estimates in *WIR* are continuously revised. Because of ongoing revisions, FDI data reported in *WIR* may differ from those reported in earlier Reports or other publications of UNCTAD or any other international or regional organizations. In particular, recent FDI data are being revised in many economies according to the fifth edition of the *Balance of Payments Manual of the IMF*. Because of this, the data reported in last year's Report may be completely or partly changed in this Report.

D. Data verification

In compiling data for this year's Report, requests were made to national official sources of all economies for verification and confirmation of the latest data revisions and accuracy. In addition, websites of national official sources were consulted. This verification process continued until 4 July 2008. Any revisions made after this process may not be reflected in the *WIR*. Below is a list of economies for which data were checked using either of these methods. For the economies which are not mentioned below, the UNCTAD secretariat could not have the data verified or confirmed by their respective governments.

E. Definitions and sources of the data in annex tables B.3

Annex table B.3 shows the ratio of inward and outward FDI flows to gross fixed capital formation and inward and outward FDI stock to GDP. All of these data are in current prices.

The data on GDP were obtained from the UNCTAD *GlobStat* database, the IMF's CD-ROM on *International Financial Statistics*, June 2008 and the IMF's *World Economic Outlook*, April 2008. For some economies, such as Taiwan Province of China, data were complemented by official sources.

The data on gross fixed capital formation were obtained from the UNCTAD *GlobStat* database and IMF's CD-ROM on *International Financial Statistics*,

June 2008. For some economies, for which data were not available for the period 1980-2007, or only part of the period, data were complemented by data on gross capital formation. These data were further complemented by data obtained from: (i) national official sources; and (ii) World Bank data on gross fixed capital formation or gross capital formation, obtained from *World Development Indicators Online*.

Figures exceeding 100% may result from the fact that, for some economies, the reported data on gross fixed capital formation do not necessarily reflect the value of capital formation accurately, and that FDI flows do not necessarily translate into capital formation.

Data on FDI are from annex tables B.1–B.2. Longer time-series data are available on WIR home page: www.unctad.org/wir or FDI statistics home page: www.unctad.org/fdistatistics.

F. Definitions and sources of the data on cross-border M&As in annex tables B.4–B.7

FDI is a balance-of-payments concept involving the cross-border transfer of funds. Cross-border M&A statistics shown in the Report are based on information reported by Thomson Financial. Such M&As conform to the FDI definition as far as the equity share is concerned. However, the data also include purchases via domestic and international capital markets, which should not be considered as FDI flows. Although it is possible to distinguish types of financing used for M&As (e.g. syndicated loans, corporate bonds, venture capital), it is not possible to trace the origin or country-sources of the funds used. Therefore, the data used in the Report include the funds not categorized as FDI. The UNCTAD database on cross-border M&As contains information on both ultimate and immediate host (target) and acquiring (home) country. From *WIR08*, all tables relating to cross-border M&As are tabulated based on the ultimate country principle unless otherwise specified. Thus, for example, a deal in which an Argentine domestic company acquired a foreign company operating in Argentina, this deal is recorded in such a manner that Argentina is the acquiring country and the foreign country is the target country.

FDI flows are recorded on a net basis (capital account credits less debits between direct investors and their foreign affiliates) in a particular year. On the other hand, M&A data are expressed as the total transaction amount of particular deals, and not as differences between gross acquisitions and divestment abroad by firms from a particular country. Transaction amounts recorded in the UNCTAD M&A statistics are those at the time of closure of the deals, and not at the time of announcement. The M&A values are not necessarily paid out in a single year.

Cross-border M&As are recorded in both directions of transactions. That is, when a cross-border M&A takes place, it registers as both a sale in the country of the target firm and as a purchase in the home country of the acquiring firm (annex tables B.4 and

Communiqué	<i>Number of countries: 142</i>
Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Aruba, Austria, Bahamas, Bahrain, Bangladesh, Banque des Etats de l'Afrique Centrale (Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon), Banque Centrale de l'Afrique de l'Ouest (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo), Belarus, Belgium, Belize, Bermuda, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Cambodia, Canada, Cape Verde, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominican Republic, Eastern Caribbean Central Bank (Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines), Egypt, El Salvador, Estonia, Fiji, Finland, Germany, Ghana, Greece, Guatemala, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, India, Indonesia, Islamic Republic of Iran, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Republic of Korea, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Libyan Arab Jamahiriya, Lithuania, Luxembourg, Macao (China), Malawi, Malaysia, Maldives, Malta, Mauritius, Mexico, Republic of Moldova, Montenegro, Morocco, Mozambique, Namibia, Netherlands, Netherlands Antilles, Nicaragua, Norway, Oman, Pakistan, Palestinian territory, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russian Federation, Rwanda, Saudi Arabia, Serbia, Seychelles, Sierra Leone, Singapore, Slovenia, South Africa, Spain, Suriname, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Taiwan Province of China, The former Yugoslav Republic of Macedonia, Thailand, Trinidad and Tobago, Tunisia, Turkey, Uganda, Ukraine, United Republic of Tanzania, Vanuatu, the Bolivarian Republic of Venezuela, Zambia and Zimbabwe	
Web-sites consulted in the preparation of WIR08	<i>Number of countries: 170</i>
Afghanistan, Albania, Angola, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Banque des Etats de l'Afrique Centrale (Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon), Banque Centrale des Etats de l'Afrique de l'Ouest (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo), Banque des Etats de l'Afrique Centrale (Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon), Barbados, Belarus, Belgium, Belize, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burundi, Canada, Cape Verde, Chile, China, Colombia, Comoros, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominican Republic, Eastern Caribbean Central Bank (Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines), Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Fiji, Finland, France, Gambia, Georgia, Germany, Ghana, Guinea, Greece, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Republic of Korea, Kyrgyzstan, Latvia, Lao People's Democratic Republic, Lebanon, Lesotho, Libyan Arab Jamahiriya, Lithuania, Luxembourg, Macao (China), Madagascar, Malaysia, Maldives, Malta, Mauritania, Mauritius, Mexico, Republic of Moldova, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nepal, Netherlands, Netherlands Antilles, New Zealand, Nigeria, Norway, Oman, Pakistan, Palestinian territory, Panama, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russian Federation, Rwanda, Samoa, Serbia, Seychelles, Singapore, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syrian Arab Republic, Taiwan Province of China, Tajikistan, The former Yugoslav Republic of Macedonia, Thailand, Tonga, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, the United Kingdom, the United States, United Republic of Tanzania, Uruguay, Vanuatu, the Bolivarian Republic of Venezuela, Yemen and Zambia	

B.5). Data showing cross-border M&A activities on an industry basis are also recorded as sales and purchases. Thus, if a food company acquires a chemical company, this transaction is recorded in the chemical industry in the columns on M&As by industry of seller, it is also recorded in the food industry in the columns on M&As by industry of purchaser (annex tables B.6 and B.7).

Longer time-series data are available on WIR home page: www.unctad.org/wir or FDI statistics home page: www.unctad.org/fdistatistics.

G. Definitions and sources of the data on operations of foreign affiliates in annex tables B.8-B.18

These annexes present selected data (number of firms, assets, number of employees, wages and salaries, sales, value added (or gross product), profits, export, import, R&D expenditure, employment in R&D and royalty receipts and payments) on the inward and outward operations of foreign affiliates as follows:

- Inward operations refer to the activities of foreign affiliates in the host economy (business enterprises in which there is an FDI relationship in the host country).
- Outward operations refer to the activities of foreign affiliates of a home-based TNCs abroad (business

enterprises located abroad in which the home-based TNC has an FDI relationship).

UNCTAD regularly collects published and unpublished national official data on the operations of foreign affiliates and TNCs directly from central banks, statistical offices or national authorities on an disaggregated basis for its FDI/TNC database (www.unctad.org/fdistatistics) and for its publication, *World Investment Directory*.

Longer time-series data are available on WIR home page: www.unctad.org/wir, or FDI statistics home page: www.unctad.org/fdistatistics.

Notes

- ¹ In some countries, an equity stake of other than 10% is still used. In the United Kingdom, for example, a stake of 20% or more was the threshold used until 1997.
- ² This general definition of FDI is based on OECD, *Detailed Benchmark Definition of Foreign Direct Investment*, third edition (OECD, 1996) and fourth edition (OECD, 2008), and International Monetary Fund, *Balance of Payments Manual*, fifth edition (IMF, 1993).
- ³ International Monetary Fund, op. cit., p. 40.
- ⁴ Includes Australia, Austria, Belgium, Canada, Commission of the European Communities, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, the United Kingdom and the United States.

Annex table B.1. FDI flows, by region and economy, 2005–2007
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2005	2006	2007	2005	2006	2007
World	958 697	1 411 018	1 833 324	880 808	1 323 150	1 996 514
Developed economies	611 283	940 861	1 247 635	748 885	1 087 186	1 692 141
Europe	505 473	599 327	848 527	689 788	736 861	1 216 491
European Union	498 400	562 444	804 290	609 267	640 542	1 142 229
Austria	10 784	6 187	30 675	11 145	9 660	31 437
Belgium	34 317	64 371	40 628	32 608	56 576	49 667
Bulgaria	3 923	7 507	8 429	306	175	265
Cyprus	1 186	1 504	2 079	558	855	1 064
Czech Republic	11 658	6 013	9 123	- 19	1 467	1 334
Denmark	12 890	3 615	11 224	16 225	8 526	16 992
Estonia	2 879	1 674	2 482	627	1 105	1 531
Finland	4 750	5 481	8 476	4 223	3 161	8 623
France	84 951	78 154	157 970	114 978	121 370	224 650
Germany	41 969	55 171	50 925	68 877	94 705	167 431
Greece	606	5 364	1 918	1 451	4 167	5 338
Hungary	7 709	6 790	5 571	2 205	3 622	4 116
Ireland	- 31 689	- 5 542	30 591	14 313	15 324	20 774
Italy	19 975	39 239	40 199	41 826	42 068	90 781
Latvia	713	1 664	2 173	128	173	232
Lithuania	1 032	1 840	1 934	343	290	600
Luxembourg	5 828	28 645	- 36 483	9 042	3 647	51 649
Malta	675	1 865	959	- 21	- 1	19
Netherlands	47 694	7 982	99 438	135 804	47 095	31 162
Poland	10 363	19 198	17 580	3 388	8 888	3 353
Portugal	3 930	11 305	5 632	2 111	6 971	6 217
Romania	6 483	11 366	9 774	- 30	423	- 62
Slovakia	2 107	4 165	3 265	157	368	384
Slovenia	577	645	1 426	644	902	1 569
Spain	25 020	26 888	53 385	41 829	100 249	119 605
Sweden	10 169	23 162	20 952	26 540	21 993	37 707
United Kingdom	177 901	148 189	223 966	80 009	86 764	265 791
Other developed Europe	7 073	36 882	44 237	80 521	96 320	74 262
Gibraltar	122 ^a	137 ^a	165 ^a	..	..	..
Iceland	3 081	3 995	3 078	7 090	5 323	12 127
Norway	5 413	6 475	602	21 966	21 143	11 168
Switzerland	- 1 543	26 275	40 391	51 465	69 854	50 968
North America	131 740	299 466	341 494	44 988	260 781	367 605
Canada	26 967	62 765	108 655	29 619	39 117	53 818
United States	104 773	236 701	232 839	15 369	221 664	313 787
Other developed economies	- 25 930	42 069	57 615	14 109	89 544	108 045
Australia	- 35 295	25 736	22 266	- 33 523	22 638	24 209
Bermuda	44	55	35	31	370	400
Israel	4 881	14 729	9 998	2 968	15 078	7 047
Japan	2 775	- 6 506	22 549	45 781	50 266	73 549
New Zealand	1 666	8 055	2 768	- 1 148	1 191	2 840
Developing economies	316 444	412 990	499 747	117 579	212 258	253 145
Africa	29 459	45 754	52 982	2 282	7 829	6 055
North Africa	12 235	23 155	22 415	329	134	1 159
Algeria	1 081	1 795	1 665	23	35	290
Egypt	5 376	10 043	11 578	92	148	665
Libyan Arab Jamahiriya	1 038	2 013	2 541	128	- 534	- 479
Morocco	1 653	2 450	2 577	74	445	652
Sudan	2 305	3 541	2 436	..	7	11
Tunisia	782	3 312	1 618	13	33	20
Other Africa	17 224	22 599	30 567	1 954	7 695	4 896
West Africa	5 652	15 766	15 553	651	547	601
Benin	53	53	48 ^a	-	- 2	- 1 ^a
Burkina Faso	34	34	600 ^a	-	1	- 3 ^a
Cape Verde	82	131	177	..	..	-
Côte d'Ivoire	312	319	427	52 ^a	- 27 ^a	- ^a
Gambia	45	71	64	..	..	..
Ghana	145	636	855	..	..	..
Guinea	105	108 ^a	111 ^a	- 5 ^a	..	..
Guinea-Bissau	9	18	7 ^a	1	-	- 4 ^a
Liberia	- 1 384 ^a	- 205 ^a	42 ^a	437 ^a	346 ^a	363 ^a
Mali	224	83	360 ^a	- 1	1	1 ^a
Mauritania	814	155	153	2 ^a	5 ^a	4 ^a
Niger	30	51	27 ^a	- 4	- 1	1 ^a

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Annex table B.1. FDI flows, by region and economy, 2005–2007 (continued)
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2005	2006	2007	2005	2006	2007
Nigeria	4 978	13 956	12 454	200	228	261 ^a
Saint Helena	- ^a	- ^a	..	..	..	..
Senegal	45	220	78 ^a	- 8	10	9 ^a
Sierra Leone	83	59	81 ^a	- 8	-	- 4 ^a
Togo	77	77	69 ^a	- 15	- 14	- 25 ^a
Central Africa	3 466	3 232	4 084	74	126	75
Burundi	1	-	- ^a	..	..	..
Cameroon	225	309	284	- 9	- 1	- 2
Central African Republic	17	18	27	..	..	..
Chad	613	700	603	..	..	..
Congo	724	344	352	3 ^a	3 ^a	4 ^a
Congo, Democratic Republic of	- 76 ^a	- 116 ^a	720 ^a	..	..	..
Equatorial Guinea	1 873	1 656	1 726	..	..	..
Gabon	60	268	269	65	106 ^a	57 ^a
Rwanda	14	16	67	..	14	13
São Tomé and Príncipe	16	38	35	15	3	3
East Africa	1 535	2 324	3 867	58	63	108
Comoros	1	1	1 ^a	..	..	..
Djibouti	59	164	195	..	..	..
Eritrea	- 1 ^a	- ^a	- 3 ^a	..	..	..
Ethiopia	265	545	254 ^a	..	..	..
Kenya	21	51	728	10	24	36
Madagascar	86	294	997	..	..	..
Mauritius	42	105	339	48	10	58
Mayotte	5 ^a	- ^a	..	..	..	..
Seychelles	86	146	248	7	8	9
Somalia	24 ^a	96 ^a	141 ^a	..	..	..
Uganda	380	400	368	..	..	..
United Republic of Tanzania	568	522	600	- 6 ^a	20 ^a	5 ^a
Southern Africa	6 571	1 278	7 063	1 171	6 959	4 113
Angola	- 1 304	- 38	- 1 500	219	191	331
Botswana	281	489	495	56	51	51
Lesotho	57	92	106	..	..	..
Malawi	27	30	55	1	1	1
Mozambique	108	154	427	-	-	-
Namibia	348	387	697	- 13	- 12	- 3
South Africa	6 644	- 527	5 692	930	6 725	3 727
Swaziland	- 50	36	37	- 24	2	3
Zambia	357	616	984	..	..	..
Zimbabwe	103	40	69	1	-	3
Latin America and the Caribbean	76 412	92 945	126 266	35 765	63 281	52 336
South and Central America	69 061	68 311	103 619	20 046	44 934	26 930
South America	44 305	43 102	71 699	12 071	36 813	15 532
Argentina	5 265	5 037	5 720	1 311	2 119	1 196
Bolivia	- 288	281	204	3	3	4
Brazil	15 066	18 822	34 585	2 517	28 202	7 067
Chile	6 984	7 358	14 457	2 183	2 876	3 830
Colombia	10 240	6 464	9 028	4 662	1 098	370
Ecuador	493	271	178	13 ^a	8 ^a	8 ^a
Guyana	77	102	152	..	..	..
Paraguay	54	170	190	6	4	8
Peru	2 579	3 467	5 343	174 ^a	428 ^a	809 ^a
Suriname	399	323	316	..	..	..
Uruguay	847	1 399	879	36	- 1	4
Venezuela, Bolivarian Republic of	2 589	- 590	646	1 167	2 076	2 237
Central America	24 756	25 209	31 920	7 975	8 121	11 399
Belize	127	104	112	1	1	1
Costa Rica	861	1 469	1 896	- 43	98	262
El Salvador	511	219	1 526	113	- 26	100
Guatemala	508	592	724	38	60	65
Honduras	600	674	816	1	1	1
Mexico	20 945	19 291	24 686	6 474	5 758	8 256
Nicaragua	241	287	335	18 ^a	21 ^a	9 ^a
Panama	962	2 574	1 825	1 372 ^a	2 209 ^a	2 704 ^a
Caribbean	7 351	24 634	22 647	15 720	18 347	25 405
Anguilla	117	164	235
Antigua and Barbuda	214	374	391	- ^a
Aruba	116	610	- 116	- 9	- 13	29

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Annex table B.1. FDI flows, by region and economy, 2005–2007 (continued)
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2005	2006	2007	2005	2006	2007
Bahamas	912	1 159	1 131	..	..	..
Barbados	62	92	51 ^a	9	14	10 ^a
British Virgin Islands	- 7 554 ^a	6 759 ^a	4 609 ^a	7 906 ^a	11 990 ^a	22 591 ^a
Cayman Islands	10 210 ^a	11 539 ^a	11 743 ^a	7 492 ^a	6 064 ^a	2 557 ^a
Cuba	16 ^a	26 ^a	17 ^a	- 2 ^a	- 2 ^a	- 1 ^a
Dominica	19	27	48	..	..	..
Dominican Republic	1 123	1 459	1 698	21 ^a	- 61 ^a	- 17 ^a
Grenada	70	85	140	..	..	..
Haiti	26	160	75	..	..	..
Jamaica	682	882	779 ^a	- 101	- 85	- 45 ^a
Montserrat	1	2	2	..	..	..
Netherlands Antilles	42	- 22	232	65	57	- 3
Puerto Rico	36 ^a	18 ^a	26 ^a	..	..	..
Saint Kitts and Nevis	93	110	143	..	..	..
Saint Lucia	78	234	261	..	..	..
Saint Vincent and the Grenadines	40	109	92	..	..	..
Trinidad and Tobago	940	788	1 035 ^a	341	370	280 ^a
Turks and Caicos Islands	108	58	57	- 3	14	5
Asia and Oceania	210 572	274 291	320 498	79 531	141 147	194 754
Asia	210 026	272 890	319 333	79 412	141 105	194 663
West Asia	42 622	63 988	71 493	12 271	23 203	44 167
Bahrain	1 049	2 915	1 756	1 135	980	1 669
Iraq	515	383	448 ^a	89	305	147 ^a
Jordan	1 774	3 219	1 835	163	- 138	48
Kuwait	234	122	123	5 142	8 207	14 203
Lebanon	2 791	2 739	2 845	122	70	233
Oman	1 688	1 623	2 377	234	328	570
Palestinian territory	47	19	21 ^a	40	139	56 ^a
Qatar	1 298 ^a	159 ^a	1 138 ^a	352 ^a	127 ^a	5 263 ^a
Saudi Arabia	12 097	18 293	24 318	53 ^a	1 257 ^a	13 139 ^a
Syrian Arab Republic	500	600	885	61 ^a	55 ^a	55 ^a
Turkey	10 031	19 989	22 029	1 064	924	2 106
United Arab Emirates	10 900	12 806	13 253 ^a	3 750	10 892	6 625 ^a
Yemen	- 302	1 121	464 ^a	65 ^a	56 ^a	54 ^a
South, East and South-East Asia	167 404	208 902	247 840	67 141	117 902	150 496
East Asia	116 177	131 879	156 706	49 836	82 301	102 865
China	72 406	72 715	83 521	12 261	21 160	22 469 ^a
Hong Kong, China	33 618	45 054	59 899	27 201	44 979	53 187
Korea, Democratic People's Republic of	50 ^a	- 105 ^a	53 ^a	..	..	..
Korea, Republic of	7 055	4 881	2 628	4 298	8 127	15 276
Macao, China	1 240	1 619	2 115 ^a	47	636	827 ^a
Mongolia	182	290	328	..	..	..
Taiwan Province of China	1 625	7 424	8 161	6 028	7 399	11 107
South Asia	12 136	25 780	30 620	3 515	13 369	14 165
Afghanistan	273	242	288	..	..	..
Bangladesh	845	793	666	3	4	21
Bhutan	9	6	78	..	..	..
India	7 606	19 662	22 950	2 978	12 842	13 649
Iran, Islamic Republic of	918	317	754	452 ^a	386 ^a	302 ^a
Maldives	9	14	15	..	..	..
Nepal	2	- 7	6	..	..	..
Pakistan	2 201	4 273	5 333	44	109	98
Sri Lanka	272	480	529 ^a	38	29	95 ^a
South-East Asia	39 091	51 243	60 514	13 790	22 232	33 466
Brunei Darussalam	289	434	184	47 ^a	18	38 ^a
Cambodia	381	483	867	6	8	1
Indonesia	8 337	4 914	6 928	3 065	2 703	4 790
Lao People's Democratic Republic	28	187	324	..	..	..
Malaysia	3 967	6 048	8 403	2 971	6 041	10 989
Myanmar	236	143	428	..	..	..
Philippines	1 854	2 921	2 928	189	103	3 442
Singapore	13 930	24 743	24 137	6 943	12 241	12 300
Thailand	8 048	9 010	9 575	503	1 032	1 756
Timor-Leste	.. ^a	.. ^a	2 ^a	..	..	..
Viet Nam	2 021	2 360	6 739	65	85	150
Oceania	546	1 401	1 165	119	42	92
Cook Islands	1 ^a	3 ^a	1 ^a	.. ^a	.. ^a	1 ^a

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Annex table B.1. FDI flows, by region and economy, 2005–2007 (concluded)
(Millions of dollars)

Region/economy	FDI inflows			FDI outflows		
	2005	2006	2007	2005	2006	2007
Fiji	160	374	269 ^a	10	1	5 ^a
French Polynesia	8	31	17 ^a	16	10	13 ^a
Kiribati	1 ^a	13 ^a	11 ^a	..	..	..
Marshall Islands	305 ^a	149 ^a	361 ^a	54 ^a	- 8 ^a	26 ^a
Micronesia, Federated States of	-	1	..	..	..	..
Nauru	1	-	1	..	..	..
New Caledonia	- 7	749	288 ^a	31	31	27 ^a
Niue	- 1	-	-	1	- 2	2
Palau	1	1	3	- 2	..	..
Papua New Guinea	34	- 7	96	6	1	8
Samoa	- 4	12	17 ^a	2	2	- ^a
Solomon Islands	19	18	42	-	7	8
Tonga	17	10	24 ^a	..	..	..
Tuvalu	- ^a	5 ^a	2 ^a	..	..	..
Vanuatu	13	43	34	1	1	1
South-East Europe and CIS (transition economies)	30 971	57 167	85 942	14 345	23 706	51 227
South-East Europe	4 829	9 998	11 908	308	381	1 370
Albania	262	325	656	4	11	15
Bosnia and Herzegovina	595	708	2 022	1	2	9
Croatia	1 788	3 423	4 925	237	223	275
Serbia and Montenegro	2 087	5 118	3 985	63	145	1 072
Serbia	1 609	4 499	3 110	58	112	914
Montenegro	478	618	876	4	33	157
The FYR of Macedonia	97	424	320	3	-	- 1
CIS	26 141	47 168	74 035	14 037	23 325	49 858
Armenia	239	453	661	7	3	- 3
Azerbaijan	1 679	- 601	- 4 817	1 221	705	286
Belarus	305	354	1 772	2	3	3
Georgia	453	1 060	1 659	- 89	- 16	74
Kazakhstan	1 971	6 224	10 259	- 146	- 387	3 161
Kyrgyzstan	43	182	208	-	-	-
Moldova, Republic of	197	242	459	-	- 1	12
Russian Federation	12 886	32 387	52 475	12 767	23 151	45 652
Tajikistan	54	339	401 ^a	..	..	..
Turkmenistan	418 ^a	731 ^a	804 ^a	..	..	..
Ukraine	7 808	5 604	9 891	275	- 133	673
Uzbekistan	88 ^a	195 ^a	262 ^a	..	..	..
Memorandum						
All developing economies, excluding China	244 038	340 275	416 226	105 317	191 098	230 676
Developing and transition economies	347 414	470 157	585 689	131 923	235 964	304 373
Least developed countries (LDCs) ^b	7 142	12 816	13 375	705	662	790
Major petroleum exporters ^c	47 670	62 201	70 322	16 657	27 845	49 830
Major exporters of manufactures ^d	196 153	250 560	303 503	73 428	148 810	161 604
Euro Zone (of EU) ^e	248 713	323 891	484 779	478 206	504 992	807 334
EU-15, 1995 ^f	449 095	498 213	739 495	600 980	622 275	1 127 824
EU-25, 2005 ^g	487 995	543 571	786 087	608 991	639 944	1 142 026

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Estimates. For details, see "Definitions and Sources" in annex B.

^b Least developed countries comprise: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

^c Major petroleum exporters include: Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Netherlands Antilles, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates, Bolivarian Republic of Venezuela and Yemen.

^d Major exporters of manufactures include: Brazil, China, Hong Kong (China), India, Republic of Korea, Malaysia, Mexico, Philippines, Singapore, Taiwan Province of China, Thailand and Turkey.

^e Euro zone (of EU) members: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia and Spain.

^f EU-15, 1995 include: Austria, Belgium and Luxembourg, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and United Kingdom.

^g EU-25, 2005 include: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

Annex table B.2. FDI stock, by region and economy, 1990, 2000, 2007
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2007	1990	2000	2007
World	1 941 252	5 786 700	15 210 560	1 785 267	6 148 211	15 602 339
Developed economies	1 412 605	3 987 624	10 458 610	1 640 405	5 265 116	13 042 178
Europe	808 943	2 308 607	7 267 144	887 519	3 329 712	8 848 414
European Union	761 897	2 190 397	6 881 625	810 472	3 050 580	8 086 111
Austria	10 972	30 431	126 895	4 747	24 821	126 748
Belgium and Luxembourg	58 388	195 219	..	40 636	179 773	..
Bulgaria	112 ^a	2 704	36 508	124 ^a	67	599
Cyprus	.. ^{a, b}	2 910 ^a	18 414	8 ^a	560 ^a	6 682
Czech Republic	1 363 ^a	21 644	101 074	..	738	6 971
Denmark	9 192	73 574	146 632 ^a	7 342	73 100	166 213 ^a
Estonia	..	2 645	16 594	..	259	5 873
Finland	5 132	24 273	85 237	11 227	52 109	113 046
France	97 814	259 775	1 026 081	112 441	445 091	1 399 036
Germany	111 231	271 611	629 711 ^a	151 581	541 861	1 235 989 ^a
Greece	5 681 ^a	14 113	52 838	2 882 ^a	6 094	30 799
Hungary	570	22 870	97 397	159 ^a	1 280	18 282
Ireland	37 989 ^a	127 089	187 184 ^a	14 942 ^a	27 925	144 070 ^a
Italy	59 998	121 170	364 839	60 184	180 275	520 084
Latvia	..	2 084	10 493	..	24	776
Lithuania	..	2 334	14 679	..	29	1 565
Luxembourg	..	23 492	30 176 ^a	..	7 927	96 282 ^a
Malta	465 ^a	2 385	7 457 ^a	..	203	1 164 ^a
Netherlands	68 731	243 733	673 430	106 900	305 461	851 274
Poland	109	34 227	142 110 ^a	95 ^a	1 018	19 644 ^a
Portugal	10 571	32 044	114 192	900	19 793	69 237
Romania	-	6 951	60 921	66	136	917
Slovakia	282 ^a	4 746	40 702	..	374	1 609
Slovenia	1 643 ^a	2 893	10 350 ^a	560 ^a	768	6 123 ^a
Spain	65 916	156 348	537 455	15 652	167 719	636 830
Sweden	12 636	93 995	254 459	50 720	123 255	308 563
United Kingdom	203 905	438 631	1 347 688	229 307	897 845	1 705 095
Other developed Europe	47 045	118 209	385 519	77 047	279 132	762 303
Gibraltar	263 ^a	642 ^a	1 406 ^a	..	..	..
Iceland	147	497	12 269	75	663	25 407
Norway	12 391	30 265	93 688 ^a	10 884	46 308	133 274 ^a
Switzerland	34 245	86 804	278 155	66 087	232 161	603 622
North America	507 754	1 469 583	2 613 786	515 328	1 553 886	3 312 006
Canada	112 843	212 716	520 737	84 807	237 639	520 737
United States	394 911	1 256 867	2 093 049	430 521	1 316 247	2 791 269
Other developed economies	95 908	209 435	577 680	237 558	381 518	881 759
Australia	73 644	111 139	312 275	30 507	85 385	277 917
Bermuda	..	265 ^a	1 291 ^a	..	108 ^a	1 012 ^a
Israel	4 476	22 816	59 952	1 188	9 091	46 047
Japan	9 850	50 322	132 851	201 441	278 442	542 614
New Zealand	7 938	24 894	71 312	4 422 ^a	8 491	14 169
Developing economies	528 638	1 738 255	4 246 739	144 862	861 842	2 288 073
Africa	59 004	152 614	393 429	19 826	44 156	72 752
North Africa	23 923	45 688	141 460	1 836	3 282	5 400
Algeria	1 521 ^a	3 497 ^a	11 815 ^a	183 ^a	249 ^a	977 ^a
Egypt	11 043 ^a	19 955	50 503	163 ^a	655	1 781
Libyan Arab Jamahiriya	678 ^a	451 ^a	6 575 ^a	1 321 ^a	1 942 ^a	523 ^a
Morocco	3 011 ^a	8 842 ^a	32 516 ^a	155 ^a	402 ^a	2 002 ^a
Sudan	55 ^a	1 398 ^a	13 828 ^a	..	..	..
Tunisia	7 615	11 545	26 223	15	33	118
Other Africa	35 081	106 926	251 969	17 989	40 874	67 353
West Africa	14 015	33 403	83 171	1 799	6 627	9 449
Benin	.. ^{a, b}	213	433 ^a	2 ^a	11	13 ^a
Burkina Faso	39 ^a	28	770 ^a	4 ^a	-	6 ^a
Cape Verde	4 ^a	192 ^a	806	1 ^a	7 ^a	9 ^a
Côte d'Ivoire	975 ^a	2 483	5 702	6 ^a	9	21 ^a
Gambia	157	216	507 ^a	..	..	..
Ghana	319 ^a	1 605 ^a	3 634 ^a	..	..	..
Guinea	69 ^a	263 ^a	800 ^a	..	7 ^a	7 ^a
Guinea-Bissau	8 ^a	38 ^a	81 ^a	..	..	..^{a, b}
Liberia	2 732 ^a	3 247 ^a	2 278 ^a	453 ^a	2 188 ^a	3 599 ^a
Mali	229 ^a	132	1 326 ^a	22 ^a	22 ^a	44 ^a
Mauritania	59 ^a	146 ^a	1 905 ^a	3 ^a	4 ^a	18 ^a
Niger	286 ^a	45	188 ^a	54 ^a	117 ^a	114 ^a

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Annex table B.2. FDI stock, by region and economy, 1990, 2000, 2007 (continued)
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2007	1990	2000	2007
Nigeria	8 539 ^a	23 786 ^a	62 791 ^a	1 207 ^a	4 132 ^a	5 514 ^a
Senegal	258 ^a	295	555 ^a	47 ^a	117 ^a	171 ^a
Sierra Leone	246 ^a	287 ^a	536 ^a	..	..	..
Togo	268 ^a	427 ^a	860 ^a	..	13 ^a	.. ^{a, b}
Central Africa	3 808	5 805	26 209	372	648	767
Burundi	30 ^a	47 ^a	48 ^a	.. ^a	2 ^a	2 ^a
Cameroon	1 044 ^a	1 600 ^a	3 796 ^a	150 ^a	254 ^a	250 ^a
Central African Republic	95 ^a	104 ^a	204 ^a	18 ^a	43 ^a	45 ^a
Chad	250 ^a	577 ^a	5 085 ^a	37 ^a	70 ^a	70 ^a
Congo	575 ^a	1 889 ^a	3 819 ^a	..	..	..
Congo, Democratic Republic of	546 ^a	617 ^a	1 512 ^a	..	..	..
Equatorial Guinea	25 ^a	1 131 ^a	10 745 ^a	.. ^a	.. ^{a, b}	3 ^a
Gabon	1 208 ^a	.. ^{a, b}	717 ^a	167 ^a	280 ^a	398 ^a
Rwanda	33 ^a	55	170	..	..	..
São Tomé and Príncipe	.. ^a	11 ^a	113 ^a	..	..	..
East Africa	1 701	7 132	19 489	165	371	621
Comoros	17 ^a	21 ^a	26 ^a	..	..	..
Djibouti	13 ^a	40	518	..	..	..
Eritrea	..	337 ^a	380 ^a	..	..	..
Ethiopia	124 ^a	941 ^a	3 620 ^a	..	..	..
Kenya	668 ^a	931 ^a	1 892 ^a	99 ^a	115 ^a	199 ^a
Madagascar	107 ^a	141	1 830	1 ^a	10 ^a	6 ^a
Mauritius	168 ^a	683 ^a	1 249 ^a	1 ^a	132 ^a	285 ^a
Seychelles	213	448	864	64	114	130
Somalia	.. ^{a, b}	4 ^a	259 ^a	..	..	..
Uganda	6 ^a	807	2 909	..	..	..
United Republic of Tanzania	388 ^a	2 778	5 942	..	..	..
Southern Africa	15 557	60 586	123 100	15 653	33 228	56 515
Angola	1 024 ^a	7 978 ^a	12 207	1 ^a	2 ^a	793 ^a
Botswana	1 309	1 827	1 300 ^a	447	517	809 ^a
Lesotho	83 ^a	330 ^a	735 ^a	.. ^a	2 ^a	2 ^a
Malawi	228 ^a	358	590	..	8 ^a	20 ^a
Mozambique	25	1 249	3 216	2 ^a	.. ^a	1 ^a
Namibia	2 047	1 276	3 822	80	45	11
South Africa	9 207	43 462	93 474 ^a	15 004	32 333	54 562 ^a
Swaziland	336	536	889	38	87	72 ^a
Zambia	1 022 ^a	2 332 ^a	5 375 ^a	..	..	..
Zimbabwe	277 ^a	1 238 ^a	1 492 ^a	80 ^a	234 ^a	245 ^a
Latin America and the Caribbean	110 547	502 900	1 140 007	58 133	204 668	493 213
South and Central America	101 977	424 924	958 753	56 013	115 014	287 154
South America	73 481	309 800	648 944	49 344	95 939	216 278
Argentina	7 751 ^a	67 601	66 015	6 057 ^a	21 141	26 873
Bolivia	1 026	5 188	5 323	7 ^a	29	94
Brazil	37 143	122 250	328 455	41 044 ^a	51 946 ^a	129 840
Chile	16 107 ^a	45 753	105 558	154 ^a	11 154	32 469
Colombia	3 500	11 157	56 189	402	2 989	10 383
Ecuador	1 626	7 081	10 310	16 ^a	158 ^a	191 ^a
Falkland Islands (Malvinas)	.. ^a	58 ^a	75 ^a	..	..	..
Guyana	45 ^a	756 ^a	1 244 ^a	..	1 ^a	2 ^a
Paraguay	418 ^a	1 327	2 003	134 ^a	214	167
Peru	1 330	11 062	24 744	122	505	2 284
Uruguay	671 ^a	2 088	5 069 ^a	186 ^a	126 ^a	160 ^a
Venezuela, Bolivarian Republic of	3 865	35 480	43 957	1 221	7 676	13 814
Central America	28 496	115 123	309 810	6 668	19 075	70 876
Belize	89 ^a	301 ^a	831 ^a	20 ^a	43 ^a	47 ^a
Costa Rica	1 324 ^a	2 709	8 803	44 ^a	86	490
El Salvador	212	1 973	5 911	56 ^a	74	384
Guatemala	1 734	3 420	6 506	..	69 ^a	352 ^a
Honduras	293	1 392	4 328 ^a	..	..	25 ^a
Mexico	22 424	97 170	265 736	2 672 ^a	8 273	44 703
Nicaragua	145 ^a	1 414 ^a	3 083 ^a	..	22 ^a	124 ^a
Panama	2 275	6 744	14 611	3 876 ^a	10 507 ^a	24 751 ^a
Caribbean	8 570	77 976	181 254	2 120	89 654	206 059
Anguilla	11 ^a	228 ^a	924 ^a	..	..	..
Antigua and Barbuda	290 ^a	596 ^a	1 986 ^a
Aruba	145 ^a	469	1 184 ^a	490 ^a	678 ^a	661 ^a
Bahamas	586 ^a	2 988 ^a	8 268 ^a

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Annex table B.2. FDI stock, by region and economy, 1990, 2000, 2007 (continued)
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2007	1990	2000	2007
Barbados	171	308	595 ^a	23	41	79 ^a
British Virgin Islands	126 ^a	32 093 ^a	61 578 ^a	875 ^a	67 132 ^a	154 862 ^a
Cayman Islands	1 749 ^a	25 585 ^a	69 784 ^a	648 ^a	20 788 ^a	47 787 ^a
Cuba	2 ^a	74 ^a	136 ^a	..	..	..
Dominica	66 ^a	272 ^a	461 ^a	..	..	..
Dominican Republic	572	1 673 ^a	8 269 ^a	..	..	..
Grenada	70 ^a	346 ^a	908 ^a	..	..	..
Haiti	149 ^a	95	385	..	2 ^a	2 ^a
Jamaica	1 295 ^a	3 821 ^a	8 580 ^a	42 ^a	709 ^a	817 ^a
Montserrat	40 ^a	83 ^a	94 ^a	..	..	..
Netherlands Antilles	408 ^a	277 ^a	699 ^a	21 ^a	11 ^a	152 ^a
Saint Kitts and Nevis	160 ^a	484 ^a	1 120 ^a	..	..	..
Saint Lucia	316 ^a	802 ^a	1 669 ^a	..	..	..
Saint Vincent and the Grenadines	48 ^a	499 ^a	916 ^a	..	..	..
Trinidad and Tobago	2 365 ^a	7 280 ^a	13 475 ^a	21 ^a	293 ^a	1 699 ^a
Turks and Caicos Islands	2	4	226	..	..	..
Asia and Oceania	359 088	1 082 741	2 713 303	66 904	613 018	1 722 108
Asia	356 575	1 078 527	2 706 635	66 853	612 720	1 721 675
West Asia	43 817	66 479	353 521	7 927	15 516	97 785
Bahrain	552	5 906	12 947	719	1 752	7 720
Iraq	.. ^{a, b}	.. ^{a, b}	1 162 ^a	..	..	..
Jordan	1 466 ^a	3 135	14 549	158 ^a	44	360
Kuwait	37 ^a	608	940	3 662	1 677	16 884
Lebanon	53 ^a	4 988 ^a	21 121 ^a	43 ^a	586 ^a	1 266 ^a
Oman	1 723 ^a	2 577 ^a	5 878	41 ^a	62 ^a	1 519
Palestinian territory	..	932 ^a	1 113 ^a	..	606 ^a	1 589 ^a
Qatar	63 ^a	1 912 ^a	7 250 ^a	..	74 ^a	6 339 ^a
Saudi Arabia	21 894 ^a	17 577	76 146	2 124 ^a	4 990 ^a	22 050 ^a
Syrian Arab Republic	5 934 ^a	7 259 ^a	9 684	4 ^a	105 ^a	510 ^a
Turkey	11 194 ^a	19 209	145 556	1 157 ^a	3 668	12 210
United Arab Emirates	751 ^a	1 069 ^a	54 786 ^a	14 ^a	1 938 ^a	27 030 ^a
Yemen	180	1 336	2 389 ^a	5 ^a	12 ^a	310 ^a
South, East and South-East Asia	312 758	1 012 047	2 353 114	58 926	597 203	1 623 890
East Asia	240 645	710 475	1 691 138	49 032	509 637	1 348 860
China	20 691 ^a	193 348	327 087	4 455 ^a	27 768 ^a	95 799 ^a
Hong Kong, China	201 653 ^a	455 469	1 184 471	11 920 ^a	388 380	1 026 587
Korea, Democratic People's Republic of	572 ^a	1 044 ^a	1 378 ^a	..	..	..
Korea, Republic of	5 186	38 110	119 630	2 301	26 833	66 220
Macao, China	2 809 ^a	2 801 ^a	8 606 ^a	..	..	1 893 ^a
Mongolia	- ^a	182 ^a	1 326 ^a	..	..	..
Taiwan Province of China	9 735 ^a	19 521	48 640	30 356 ^a	66 655	158 361
South Asia	7 809	32 525	111 023	422	3 075	32 303
Afghanistan	12 ^a	17 ^a	1 116 ^a	..	..	..
Bangladesh	1 492 ^a	3 848	4 404	45 ^a	69	123
Bhutan	2 ^a	4 ^a	106 ^a	..	..	..
India	1 657 ^a	17 517	76 226	124 ^a	1 859	29 412
Iran, Islamic Republic of	2 039 ^a	2 433 ^a	5 295 ^a	..	572 ^a	1 473 ^a
Maldives	25 ^a	118 ^a	209 ^a	..	..	..
Nepal	12 ^a	72 ^a	126 ^a	..	..	..
Pakistan	1 892	6 919	20 086	245	489	1 002
Sri Lanka	679 ^a	1 596	3 456 ^a	8 ^a	86 ^a	293 ^a
South-East Asia	64 303	269 048	550 952	9 471	84 492	242 727
Brunei Darussalam	33 ^a	3 868 ^a	10 045 ^a	..	447 ^a	698 ^a
Cambodia	38 ^a	1 580	3 821	..	193	284
Indonesia	8 732 ^a	25 060 ^a	58 955 ^a	86 ^a	6 940 ^a	21 425 ^a
Lao People's Democratic Republic	13 ^a	556 ^a	1 180 ^a	..	21 ^a	20 ^a
Malaysia	10 318	52 747 ^a	76 748	753	15 878 ^a	58 175
Myanmar	281 ^c	3 865 ^c	5 433 ^a	..	..	..
Philippines	4 528 ^a	18 156 ^a	18 952 ^a	406 ^a	2 044 ^a	5 573 ^a
Singapore	30 468	112 633	249 667 ^a	7 808	56 766	149 526 ^a
Thailand	8 242	29 915	85 749 ^a	418	2 203	7 025 ^a
Timor-Leste	- ^a	72 ^a	167 ^a	..	..	..
Viet Nam	1 650 ^a	20 596	40 235 ^a	..	..	..
Oceania	2 513	4 214	6 668	51	298	433
Cook Islands	14 ^a	34 ^a	40 ^a
Fiji	284	389	1 464 ^a	25 ^a	35	76 ^a

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Annex table B.2. FDI stock, by region and economy, 1990, 2000, 2007 (concluded)
(Millions of dollars)

Region/economy	FDI inward stock			FDI outward stock		
	1990	2000	2007	1990	2000	2007
French Polynesia	69 ^a	139 ^a	250 ^a	..	..	68 ^a
Kiribati	.. ^a	69 ^a	159 ^a	..	..	..
New Caledonia	70 ^a	129 ^a	1 360 ^a	..	..	..
Niue	..	-	7	..	..	..
Northern Mariana Islands	304	767	..	..	..	..
Palau	..	97	123	..	..	..
Papua New Guinea	1 582	2 007 ^a	2 337 ^a	26 ^a	263 ^a	273 ^a
Pitcairn	..	..	..	..	..	..
Samoa	9 ^a	53 ^a	82 ^a	..	..	..
Solomon Islands	70 ^a	150 ^a	220 ^a	..	..	..
Tokelau	..	-	..	..	..	..
Tonga	1 ^a	15 ^a	74 ^a	..	..	..
Tuvalu	..	..^{a, b}	31 ^a	..	..	..
Vanuatu	110 ^a	366 ^a	520 ^a	..	..	16
South-East Europe and CIS (transition economies)	9	60 821	505 211	-	21 253	272 088
South-East Europe	-	5 652	71 648	-	841	3 786
Albania	..	247	2 264	..	..	19
Bosnia and Herzegovina	..	1 063 ^a	5 990 ^a	..	..	15 ^a
Croatia	..	2 787	44 630	..	825	3 495
Serbia and Montenegro	..	1 015	15 681	..	..	219
Serbia	..	1 015 ^a	13 204 ^a	..	..	..
Montenegro	..	..	2 478	..	..	219
The FYR of Macedonia	..	540	3 084 ^a	..	16	39 ^a
CIS	9	55 169	433 563	-	20 412	268 301
Armenia	9 ^a	583	2 448	..	1 ^a	13
Azerbaijan	..	3 735	6 598	..	5 ^a	4 676
Belarus	..	1 306	4 500	..	24	37
Georgia	..	725	5 259 ^a	..	..	80 ^a
Kazakhstan	..	10 078	43 381	..	16	2 149
Kyrgyzstan	..	432	819	..	33	18
Moldova, Republic of	..	449	1 813	..	23	41
Russian Federation	..	32 204	324 065 ^a	..	20 141	255 211 ^a
Tajikistan	..	136 ^a	1 046 ^a	..	..	..
Turkmenistan	..	949 ^a	3 928 ^a	..	..	..
Ukraine	..	3 875	38 059	..	170	6 077
Uzbekistan	..	698 ^a	1 648 ^a	..	..	..
Memorandum						
All developing economies, excluding China	507 948	1 544 907	3 919 652	140 407	834 073	2 192 274
Developing and transition economies	528 647	1 799 076	4 751 950	144 862	883 095	2 560 161
Least developed countries (LDCs) ^d	10 643	38 986	100 703	696	2 921	5 611
Major petroleum exporters ^e	62 092	149 989	401 532	10 796	33 154	129 827
Major exporters of manufactures ^f	363 239	1 176 046	2 926 918	103 415	652 274	1 783 431
Euro Zone (of EU) ^g	475 678	1 283 479	4 586 497	481 455	1 771 149	5 836 035
EU-15, 1995 ^h	758 156	2 082 005	6 324 927	809 459	3 045 123	8 015 907
EU-25, 2005 ⁱ	761 785	2 180 742	6 784 196	810 282	3 050 377	8 084 595

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Estimates. For details, see "Definitions and Sources" in annex B.

^b Negative stock value. However, this value is included in the regional and global total.

^c On a fiscal year basis.

^d Least developed countries comprise: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

^e Major petroleum exporters include: Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Netherlands Antilles, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates, Bolivarian Republic of Venezuela and Yemen.

^f Major exporters of manufactures include: Brazil, China, Hong Kong (China), India, Republic of Korea, Malaysia, Mexico, Philippines, Singapore, Taiwan Province of China, Thailand and Turkey.

^g Euro zone (of EU) members: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia and Spain.

^h EU-15, 1995 include: Austria, Belgium and Luxembourg, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and United Kingdom.

ⁱ EU-25, 2005 include: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy
(Per cent)

Region/economy	FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product			
	2005	2006	2007	1990	2000	2007	
World							
	<i>inward</i>	9.7	12.9	14.8	9.1	18.1	27.9
	<i>outward</i>	9.0	12.2	16.2	8.5	19.4	28.9
Developed economies							
	<i>inward</i>	8.9	12.8	15.6	8.1	16.2	27.2
	<i>outward</i>	10.9	14.8	21.2	9.5	21.3	33.9
Europe							
	<i>inward</i>	17.5	18.9	22.7	10.7	26.0	41.2
	<i>outward</i>	23.9	23.2	32.6	11.8	37.5	50.2
European Union							
	<i>inward</i>	18.2	18.6	22.6	10.6	25.9	40.9
	<i>outward</i>	22.2	21.2	32.1	11.3	36.1	48.1
Austria	<i>inward</i>	17.4	9.3	39.7	6.6	15.7	34.0
	<i>outward</i>	18.0	14.5	40.7	2.9	12.8	34.0
Belgium and Luxembourg	<i>inward</i>	..	..	..	27.1	77.4	..
	<i>outward</i>	..	..	..	18.9	71.3	..
Belgium	<i>inward</i>	45.0	78.1	42.0	..	..	165.2
	<i>outward</i>	42.7	68.7	51.3	..	..	135.3
Bulgaria	<i>inward</i>	59.7	91.4	71.6	0.5	21.5	92.3
	<i>outward</i>	4.7	2.1	2.3	0.6	0.5	1.5
Cyprus	<i>inward</i>	35.7	40.4	46.9	.. ^a	31.3	86.5
	<i>outward</i>	16.8	23.0	24.0	0.1	6.0	31.4
Czech Republic	<i>inward</i>	37.4	17.1	21.6	..	38.2	57.7
	<i>outward</i>	- 0.1	4.2	3.2	..	1.3	4.0
Denmark	<i>inward</i>	25.2	6.0	15.7	6.8	46.0	47.1
	<i>outward</i>	31.7	14.2	23.8	5.4	45.7	53.3
Estonia	<i>inward</i>	67.4	29.6	36.6	..	47.0	78.0
	<i>outward</i>	14.7	19.5	22.6	..	4.6	27.6
Finland	<i>inward</i>	12.9	13.6	17.1	3.7	19.9	34.8
	<i>outward</i>	11.5	7.8	17.4	8.0	42.8	46.2
France	<i>inward</i>	20.1	17.0	29.4	7.9	19.6	40.1
	<i>outward</i>	27.1	26.4	41.8	9.1	33.5	54.7
Germany	<i>inward</i>	8.6	10.5	8.3	6.5	14.3	19.0
	<i>outward</i>	14.2	18.1	27.2	8.8	28.5	37.3
Greece	<i>inward</i>	1.0	7.8	2.4	6.2	11.2	16.9
	<i>outward</i>	2.5	6.0	6.6	3.1	4.9	9.8
Hungary	<i>inward</i>	30.7	27.7	19.3	1.5	47.7	70.5
	<i>outward</i>	8.8	14.8	14.2	0.4	2.7	13.2
Ireland	<i>inward</i>	- 60.6	- 9.6	47.5	79.4	131.9	73.6
	<i>outward</i>	27.4	26.5	32.3	31.2	29.0	56.7
Italy	<i>inward</i>	5.4	10.1	9.1	5.3	11.0	17.3
	<i>outward</i>	11.4	10.8	20.5	5.3	16.4	24.7
Latvia	<i>inward</i>	14.5	25.6	24.6	..	26.6	38.6
	<i>outward</i>	2.6	2.7	2.6	..	0.3	2.9
Lithuania	<i>inward</i>	17.6	25.0	19.0	..	20.4	38.3
	<i>outward</i>	5.8	3.9	5.9	..	0.3	4.1
Luxembourg	<i>inward</i>	75.0	369.5	- 398.8	..	..	60.2
	<i>outward</i>	116.3	47.0	564.6	191.9
Malta	<i>inward</i>	58.7	150.0	69.3	18.9	61.3	100.7
	<i>outward</i>	- 1.8	-	1.4	..	5.2	15.7

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy		FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product		
		2005	2006	2007	1990	2000	2007
Netherlands	inward	39.7	6.0	65.1	23.1	63.3	87.9
	outward	113.2	35.7	20.4	35.9	79.3	111.2
Poland	inward	18.7	28.5	18.7	0.2	20.0	33.8
	outward	6.1	13.2	3.6	0.1	0.6	4.7
Portugal	inward	9.4	26.1	11.4	14.0	28.4	51.2
	outward	5.0	16.1	12.6	1.2	17.6	31.1
Romania	inward	28.5	40.1	25.5	-	18.8	36.7
	outward	- 0.1	1.5	- 0.2	0.2	0.4	0.6
Slovakia	inward	16.6	28.4	16.7	..	23.3	53.6
	outward	1.2	2.5	2.0	..	1.8	2.1
Slovenia	inward	6.4	6.5	10.8	..	14.8	22.5
	outward	7.2	9.0	11.9	..	3.9	13.3
Spain	inward	7.6	7.2	11.9	12.7	26.9	37.4
	outward	12.7	26.8	26.8	3.0	28.9	44.3
Sweden	inward	16.0	32.6	24.3	5.2	38.3	56.0
	outward	41.7	30.9	43.8	20.9	50.2	67.8
United Kingdom	inward	46.2	34.6	44.8	20.6	30.4	48.6
	outward	20.8	20.3	53.1	23.1	62.3	61.5
Other developed Europe	inward	5.0	24.2	24.9	13.0	27.6	46.1
	outward	58.0	63.3	41.9	21.4	65.6	91.4
Iceland	inward	66.6	71.3	56.1	2.3	5.7	61.5
	outward	153.3	95.0	221.0	1.2	7.6	127.3
Norway	inward	9.8	10.1	0.7	10.7	18.1	24.0
	outward	39.7	33.1	13.8	9.4	27.7	34.1
Switzerland	inward	- 2.0	31.8	44.5	14.4	34.7	65.7
	outward	65.3	84.4	56.1	27.7	92.9	142.6
North America	inward	4.9	10.4	11.7	8.0	13.9	17.1
	outward	1.7	9.1	12.6	8.1	14.7	21.7
Canada	inward	11.3	22.4	34.2	19.4	29.3	36.5
	outward	12.4	13.9	16.9	14.6	32.8	36.5
United States	inward	4.3	9.1	9.0	6.8	12.8	15.1
	outward	0.6	8.5	12.1	7.4	13.4	20.2
Other developed economies	inward	- 2.0	3.3	4.3	2.8	4.0	10.3
	outward	1.1	7.0	8.1	6.9	7.3	15.8
Australia	inward	- 18.6	12.7	9.0	23.2	28.6	34.4
	outward	- 17.7	11.2	9.8	9.6	22.0	30.6
Bermuda	inward	4.8	5.7	3.3	..	7.6	22.2
	outward	3.4	38.4	37.0	..	3.1	17.4
Israel	inward	22.8	60.6	33.4	7.9	18.9	37.0
	outward	13.9	62.0	23.5	2.1	7.5	28.5
Japan	inward	0.3	- 0.6	2.2	0.3	1.1	3.0
	outward	4.3	4.9	7.2	6.7	6.0	12.4
New Zealand	inward	6.4	33.0	9.3	18.1	47.3	55.6
	outward	- 4.4	4.9	9.6	10.1	16.1	11.0
Developing economies	inward	11.4	12.5	12.6	13.6	25.2	29.8
	outward	4.3	6.5	6.4	4.0	12.9	16.5

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)

(Per cent)

Region/economy		FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product		
		2005	2006	2007	1990	2000	2007
Africa							
	inward	16.3	21.4	21.3	11.5	25.2	31.0
	outward	1.5	4.1	2.7	4.5	8.1	6.5
North Africa							
	inward	16.2	25.1	20.4	12.8	17.8	30.1
	outward	0.5	0.1	1.1	1.1	1.3	1.3
Algeria	inward	4.7	6.3	5.1	2.5	6.4	9.0
	outward	0.1	0.1	0.9	0.3	0.5	0.7
Egypt	inward	32.2	49.8	42.7	28.0	20.0	39.6
	outward	0.6	0.7	2.5	0.4	0.7	1.4
Libyan Arab Jamahiriya	inward	14.4	23.0	25.3	2.3	1.3	11.5
	outward	1.8	- 6.1	- 4.8	4.6	5.7	0.9
Morocco	inward	9.8	13.0	12.2	10.4	23.9	44.3
	outward	0.4	2.4	3.1	0.5	1.1	2.7
Sudan	inward	41.3	42.2	22.9	0.3	12.1	30.0
	outward	..	0.1	0.1	..	..	..
Tunisia	inward	12.1	45.5	19.6	61.8	59.4	74.9
	outward	0.2	0.5	0.2	0.1	0.2	0.3
Other Africa							
	inward	16.5	18.6	22.0	10.7	30.7	31.6
	outward	2.3	7.7	4.3	6.6	13.5	9.7
West Africa							
	inward	21.3	52.7	45.2	13.5	31.8	33.1
	outward	2.8	2.1	2.0	2.0	6.7	4.0
Benin	inward	6.3	5.8	4.6	.. ^a	9.0	8.0
	outward	-	- 0.2	- 0.1	0.1	0.4	0.2
Burkina Faso	inward	2.7	2.4	37.0	1.2	1.2	11.3
	outward	-	0.1	- 0.2	0.1	-	0.1
Cape Verde	inward	21.9	30.3	33.8	1.2	35.6	56.4
	outward	..	..	0.1	0.4	1.3	0.6
Côte d'Ivoire	inward	18.3	17.9	21.2	8.2	23.2	27.9
	outward	3.1	- 1.5	-	0.1	0.1	0.1
Gambia	inward	37.3	57.8	40.2	47.0	51.3	77.7
	outward	..	..	..	..	..	..
Ghana	inward	4.6	19.4	22.3	5.1	32.2	24.5
	outward	..	..	..	..	..	..
Guinea	inward	23.4	20.0	13.7	2.4	8.4	17.0
	outward	- 1.1	..	..	..	0.2	0.1
Guinea-Bissau	inward	19.8	35.1	12.4	3.4	17.6	23.6
	outward	1.6	0.8	- 6.8	..	..	..^a
Liberia	inward	-1 587.0	- 242.3	41.6	710.6	578.8	312.1
	outward	501.1	409.5	359.4	117.8	390.0	493.1
Mali	inward	26.4	7.6	30.1	9.1	5.0	20.5
	outward	- 0.1	0.1	0.1	0.9	0.8	0.7
Mauritania	inward	97.8	19.5	19.0	5.6	13.6	69.1
	outward	0.2	0.6	0.5	0.2	0.4	0.7
Niger	inward	5.6	7.7	3.5	11.4	2.7	4.8
	outward	- 0.8	- 0.1	0.1	2.2	7.0	2.9
Nigeria	inward	36.7	88.5	69.6	13.8	35.3	37.6
	outward	1.5	1.4	1.5	2.0	6.1	3.3

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy		FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product		
		2005	2006	2007	1990	2000	2007
Senegal	inward	2.0	9.1	2.7	4.2	6.3	5.0
	outward	- 0.3	0.4	0.3	0.8	2.5	1.5
Sierra Leone	inward	104.8	69.2	81.7	26.1	31.1	25.1
	outward	- 9.5	0.2	- 3.7	..	..	..
Togo	inward	18.8	16.7	13.3	15.5	33.0	34.4
	outward	- 3.6	- 3.1	- 4.8	..	1.0	.. ^a
Central Africa	inward	28.3	21.8	24.0	10.1	20.2	36.3
	outward	1.1	1.5	0.8	1.6	3.5	1.5
Burundi	inward	0.5	-	-	2.6	6.6	4.8
	outward	..	..	..	-	0.3	0.2
Cameroon	inward	6.7	7.8	6.2	7.3	17.2	18.4
	outward	- 0.3	-	- 0.1	1.0	2.7	1.2
Central African Republic	inward	21.5	22.4	29.0	7.4	11.5	11.9
	outward	..	..	..	1.4	4.8	2.6
Chad	inward	48.2	45.4	34.8	16.2	41.7	71.7
	outward	..	..	..	2.4	5.1	1.0
Congo	inward	47.5	18.3	18.9	20.5	58.7	53.8
	outward	0.2	0.2	0.2	..	..	..
Congo, Democratic Republic of	inward	- 7.5	- 8.4	44.8	6.5	11.7	14.9
	outward	..	..	..	..	..	..
Equatorial Guinea	inward	71.2	52.5	44.7	19.0	96.1	102.5
	outward	..	..	..	0.2	.. ^a	-
Gabon	inward	3.3	13.1	11.2	22.0	.. ^a	6.3
	outward	3.6	5.2	2.4	3.0	5.6	3.5
Rwanda	inward	3.2	3.3	12.2	1.3	3.2	6.4
	outward	..	3.0	2.4	..	..	..
São Tomé and Príncipe	inward	64.1	74.5	59.9	0.7	24.7	130.2
	outward	59.4	6.2	5.3	..	..	..
East Africa	inward	10.8	14.3	19.5	4.4	14.8	20.3
	outward	0.7	0.7	1.0	1.0	1.7	1.4
Comoros	inward	1.6	1.3	1.6	7.0	10.1	5.8
	outward	..	..	..	..	..	..
Djibouti	inward	42.0	111.4	121.7	2.8	7.2	61.6
	outward	..	..	..	..	..	..
Eritrea	inward	- 0.6	0.2	- 1.2	..	53.0	28.9
	outward	..	..	..	..	..	..
Ethiopia	inward	11.4	20.8	7.6	1.1	12.0	18.6
	outward	..	..	..	..	..	..
Kenya	inward	0.6	1.2	13.1	6.1	7.4	6.5
	outward	0.3	0.6	0.7	0.9	0.9	0.7
Madagascar	inward	7.6	24.6	62.3	3.5	3.6	25.0
	outward	..	..	..	-	0.3	0.1
Mauritius	inward	3.1	6.7	17.9	6.5	14.9	16.6
	outward	3.5	0.6	3.1	0.1	2.9	3.8
Seychelles	inward	81.2	132.4	246.0	57.8	72.5	121.7
	outward	7.0	7.3	8.5	17.3	18.4	18.3

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy		FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product		
		2005	2006	2007	1990	2000	2007
Somalia	inward	5.1	19.8	26.0	.. ^a	0.2	9.7
	outward	..	..	..	..	..	..
Uganda	inward	17.6	15.8	12.3	0.2	14.1	25.9
	outward	..	..	..	..	..	..
United Republic of Tanzania	inward	20.0	17.7	17.9	8.3	29.8	39.4
	outward	-0.2	0.7	0.2	..	..	..
Southern Africa	inward	12.8	2.1	10.4	10.6	36.3	32.5
	outward	2.4	12.2	6.4	11.1	20.3	15.4
Angola	inward	-52.7	-0.6	-17.8	10.0	87.4	19.9
	outward	8.9	3.1	3.9	-	-	1.3
Botswana	inward	14.7	26.9	24.4	37.5	37.4	11.3
	outward	2.9	2.8	2.5	12.8	10.6	7.0
Lesotho	inward	11.2	15.5	16.7	13.4	38.2	45.9
	outward	..	..	..	-	0.2	0.1
Malawi	inward	14.3	15.9	26.2	13.0	20.5	23.7
	outward	0.5	0.7	0.7	..	0.5	0.8
Mozambique	inward	8.5	9.1	22.6	0.9	32.6	42.5
	outward	-	-	-	0.1	-	-
Namibia	inward	22.2	23.6	39.9	87.5	37.4	56.8
	outward	-0.8	-0.7	-0.2	3.4	1.3	0.2
South Africa	inward	16.1	-1.2	11.5	8.2	32.7	34.3
	outward	2.3	15.0	7.5	13.4	24.3	20.0
Swaziland	inward	-9.8	7.7	7.5	38.5	38.6	30.3
	outward	-4.8	0.5	0.6	4.4	6.3	2.5
Zambia	inward	19.9	22.8	35.6	27.3	72.0	48.2
	outward	..	..	..	..	..	..
Zimbabwe	inward	202.0	39.8	153.8	3.2	22.0	189.5
	outward	2.2	-	6.9	0.9	4.2	31.2
Latin America and the Caribbean	inward	15.4	15.4	18.0	9.9	24.5	32.4
	outward	7.3	10.6	7.5	5.5	10.3	14.5
South and Central America	inward	14.5	11.8	15.4	9.6	21.7	28.6
	outward	4.2	7.8	4.0	5.3	5.9	8.6
South America	inward	15.4	12.0	15.4	9.6	23.6	27.7
	outward	4.2	10.3	3.4	6.4	7.3	9.2
Argentina	inward	13.4	10.1	9.0	5.5	23.8	25.2
	outward	3.3	4.2	1.9	4.3	7.4	10.2
Bolivia	inward	-23.2	17.2	9.6	21.1	61.8	40.6
	outward	0.2	0.2	0.2	0.1	0.4	0.7
Brazil	inward	10.7	10.6	15.0	8.5	19.0	25.0
	outward	1.8	15.9	3.1	9.4	8.1	9.9
Chile	inward	27.9	25.8	42.9	48.1	60.8	64.4
	outward	8.7	10.1	11.4	0.5	14.8	19.8
Colombia	inward	41.8	21.5	22.9	7.3	13.3	32.7
	outward	19.0	3.7	0.9	0.8	3.6	6.0
Ecuador	inward	6.0	3.0	1.8	14.5	44.4	23.2
	outward	0.2	0.1	0.1	0.1	1.0	0.4

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy		FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product		
		2005	2006	2007	1990	2000	2007
Guyana	inward	28.8	24.8	31.5	11.3	106.1	119.7
	outward	..	..	..	..	0.1	0.1
Paraguay	inward	3.7	9.6	8.3	8.5	18.7	16.7
	outward	0.4	0.2	0.3	2.7	3.0	1.4
Peru	inward	17.7	19.4	22.8	4.5	20.7	22.7
	outward	1.2	2.4	3.5	0.4	0.9	2.1
Suriname	inward	30.8	21.0	18.3	..	..	..
	outward	..	..	..	..	..	..
Uruguay	inward	40.8	49.9	27.4	8.0	10.4	22.0
	outward	1.7	-	0.1	2.2	0.6	0.7
Venezuela, Bolivarian Republic of	inward	8.8	- 1.5	1.2	8.2	30.3	19.3
	outward	4.0	5.2	4.1	2.6	6.6	6.1
Central America	inward	13.2	11.6	15.3	9.7	17.7	30.6
	outward	4.3	3.7	5.4	2.4	3.0	7.0
Belize	inward	61.2	44.1	45.5	22.0	36.2	65.2
	outward	0.5	0.3	0.4	4.9	5.2	3.7
Costa Rica	inward	23.0	32.7	33.5	18.2	17.0	33.6
	outward	- 1.1	2.2	4.6	0.6	0.5	1.9
El Salvador	inward	19.6	7.3	46.5	4.4	15.0	29.0
	outward	4.3	- 0.9	3.0	1.2	0.6	1.9
Guatemala	inward	10.2	10.5	11.6	25.4	19.9	19.3
	outward	0.8	1.1	1.0	..	0.4	1.0
Honduras	inward	30.9	29.2	30.9	9.6	23.1	40.8
	outward	0.1	-	-	..	..	0.2
Mexico	inward	12.3	9.8	13.3	8.5	16.7	29.7
	outward	3.8	2.9	4.4	1.0	1.4	5.0
Nicaragua	inward	17.6	19.1	20.6	4.0	35.9	53.9
	outward	1.3	1.4	0.6	..	0.6	2.2
Panama	inward	37.0	78.2	48.1	37.4	58.0	74.0
	outward	52.7	67.1	71.3	63.8	90.4	125.4
Caribbean	inward	34.0	95.8	78.2	14.3	86.7	111.5
	outward	85.8	88.0	107.5	14.4	305.3	401.2
Anguilla	inward	197.1	241.4	309.2	19.9	210.9	409.0
	outward	..	..	..	..	..	..
Antigua and Barbuda	inward	41.6	72.7	70.0	74.0	89.5	190.3
	outward	-	..	..	..	..	..
Aruba	inward	15.3	73.0	- 13.1	17.5	25.0	45.1
	outward	- 1.1	- 1.6	3.3	59.1	36.2	25.2
Bahamas	inward	52.0	62.2	57.5	18.5	59.7	125.5
	outward	..	..	..	..	..	..
Barbados	inward	9.9	12.4	6.4	10.0	12.0	15.9
	outward	1.5	1.9	1.2	1.4	1.6	2.1
British Virgin Islands	inward	-3 242.1	2 720.9	1 654.6	120.0	4 093.5	5 310.6
	outward	3 393.1	4 826.7	8 110.5	834.1	8 562.8	13 355.6
Cayman Islands	inward	1 971.7	2 102.3	1 908.0	247.0	1 475.6	2 542.8
	outward	1 446.9	1 104.8	415.5	91.6	1 198.9	1 741.3

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy	FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product			
	2005	2006	2007	1990	2000	2007	
Cuba	inward	0.4	0.6	0.4	-	0.2	0.2
	outward	-	-	-	..	..	..
Dominica	inward	22.5	31.5	54.6	39.5	100.5	141.5
	outward	..	..	..	..	..	..
Dominican Republic	inward	20.5	22.4	22.0	8.1	8.5	20.2
	outward	0.4	-0.9	-0.2	..	..	..
Grenada	inward	27.3	38.7	60.0	39.8	103.3	195.6
	outward	..	..	..	..	..	..
Haiti	inward	5.0	12.1	4.8	5.7	2.7	7.1
	outward	..	..	..	..	0.1	-
Jamaica	inward	22.1	28.0	22.9	30.3	48.4	76.6
	outward	-3.3	-2.7	-1.3	1.0	9.0	7.3
Montserrat	inward	5.3	10.6	9.8	59.5	238.5	181.4
	outward	..	..	..	..	..	..
Netherlands Antilles	inward	5.6	-2.7	25.0	20.6	9.7	18.6
	outward	8.8	6.8	-0.4	1.1	0.4	4.0
Saint Kitts and Nevis	inward	47.7	48.9	59.3	100.6	147.2	212.6
	outward	..	..	..	..	..	..
Saint Lucia	inward	38.3	61.5	66.2	75.9	113.5	174.2
	outward	..	..	..	..	..	..
Saint Vincent and the Grenadines	inward	28.4	76.1	57.3	24.3	148.9	182.8
	outward	..	..	..	..	..	..
Trinidad and Tobago	inward	40.9	22.1	25.4	46.7	89.3	65.1
	outward	14.8	10.4	6.9	0.4	3.6	8.2
Turks and Caicos Islands	inward	48.6	22.8	19.8	1.7	1.4	31.1
	outward	-1.4	5.5	1.7	..	..	..
Asia and Oceania	inward	10.0	11.0	10.6	16.0	25.5	28.6
	outward	3.8	5.7	6.5	3.2	14.8	18.5
Asia	inward	10.0	11.0	10.6	15.9	25.5	28.6
	outward	3.8	5.7	6.5	3.2	14.8	18.5
West Asia	inward	17.5	22.1	20.4	10.1	9.7	21.5
	outward	5.0	8.0	12.6	1.9	2.3	6.1
Bahrain	inward	39.8	92.2	44.7	12.8	74.1	65.9
	outward	43.1	31.0	42.5	16.8	22.0	39.3
Iraq	inward	7.4	5.6	5.9	.. ^a	.. ^a	2.2
	outward	1.3	4.5	1.9	..	..	..
Jordan	inward	54.9	85.1	42.7	36.5	37.1	91.9
	outward	5.0	-3.6	1.1	3.9	0.5	2.3
Kuwait	inward	1.7	0.8	0.8	0.2	1.6	0.8
	outward	37.6	56.7	87.0	19.8	4.4	15.2
Lebanon	inward	65.8	66.8	64.1	1.9	29.9	85.7
	outward	2.9	1.7	5.2	1.5	3.5	5.1
Oman	inward	30.2	30.4	39.7	14.7	13.0	14.7
	outward	4.2	6.1	9.5	0.3	0.3	3.8
Palestinian territory	inward	4.4	1.8	1.8	..	22.6	23.4
	outward	3.9	13.8	5.0	..	14.7	33.4

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy	FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product			
	2005	2006	2007	1990	2000	2007	
Qatar	inward	9.1	1.0	5.4	0.9	10.8	10.7
	outward	2.5	0.8	24.8	..	0.4	9.4
Saudi Arabia	inward	23.2	29.7	30.1	18.8	9.3	20.2
	outward	0.1	2.0	16.3	1.8	2.6	5.8
Syrian Arab Republic	inward	7.6	7.5	10.3	53.2	36.9	25.6
	outward	0.9	0.7	0.6	-	0.5	1.3
Turkey	inward	9.9	16.9	15.6	5.6	7.2	22.2
	outward	1.0	0.8	1.5	0.6	1.4	1.9
United Arab Emirates	inward	38.6	30.4	26.7	2.2	1.5	25.5
	outward	13.3	25.8	13.3	-	2.7	12.6
Yemen	inward	- 9.0	28.1	10.3	4.7	13.9	11.0
	outward	1.9	1.4	1.2	0.1	0.1	1.4
South, East and South-East Asia	inward	9.0	9.5	9.3	17.3	28.6	30.1
	outward	3.6	5.4	5.7	3.5	17.2	21.1
East Asia	inward	9.0	8.7	8.6	25.9	32.1	35.0
	outward	3.9	5.4	5.7	5.4	23.2	28.0
China	inward	7.7	6.4	5.9	5.1	16.2	10.1
	outward	1.3	1.9	1.6	1.1	2.3	3.0
Hong Kong, China	inward	90.4	108.6	142.8	262.3	269.3	573.0
	outward	73.2	108.4	126.8	15.5	229.6	496.6
Korea, Democratic People's Republic of	inward	..	..	..	3.9	9.8	10.1
	outward	..	..	..	..	..	..
Korea, Republic of	inward	3.0	1.9	0.9	2.0	7.4	12.3
	outward	1.9	3.2	5.5	0.9	5.2	6.8
Macao, China	inward	40.1	32.9	31.7	93.9	45.9	45.0
	outward	1.5	12.9	12.4	..	..	9.9
Mongolia	inward	21.0	26.6	24.3	-	19.2	34.0
	outward	..	..	..	..	..	..
Taiwan Province of China	inward	2.1	9.6	10.1	5.9	6.1	12.7
	outward	8.0	9.6	13.7	18.4	20.7	41.3
South Asia	inward	3.5	6.2	5.7	1.5	4.5	6.5
	outward	1.0	3.2	2.6	0.1	0.4	1.9
Afghanistan	inward	18.8	16.8	16.0	0.3	0.6	12.6
	outward	..	..	..	..	..	..
Bangladesh	inward	5.2	4.5	3.4	4.7	7.9	6.1
	outward	-	-	0.1	0.1	0.1	0.2
Bhutan	inward	2.1	1.2	11.3	0.7	1.0	8.1
	outward	..	..	..	..	..	..
India	inward	3.0	6.6	5.8	0.5	3.7	6.7
	outward	1.2	4.3	3.5	-	0.4	2.6
Iran, Islamic Republic of	inward	1.8	0.5	0.9	2.3	2.4	1.8
	outward	0.9	0.6	0.4	..	0.6	0.5
Maldives	inward	2.1	2.8	2.6	11.6	19.0	19.9
	outward
Nepal	inward	0.2	- 0.5	0.4	0.3	1.3	1.6
	outward

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy		FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product		
		2005	2006	2007	1990	2000	2007
Pakistan	inward	11.5	16.8	17.4	3.3	8.8	14.0
	outward	0.2	0.4	0.3	0.4	0.6	0.7
Sri Lanka	inward	4.8	6.8	6.6	8.5	9.8	10.7
	outward	0.7	0.4	1.2	0.1	0.5	0.9
South-East Asia	inward	18.7	20.2	19.6	18.2	44.9	43.0
	outward	6.7	8.9	11.0	2.8	15.1	20.3
Brunei Darussalam	inward	26.7	28.5	11.3	1.0	64.5	81.1
	outward	4.3	1.2	2.3	..	7.4	5.6
Cambodia	inward	32.1	34.3	52.3	2.2	43.1	44.3
	outward	0.5	0.6	0.1	..	5.3	3.3
Indonesia	inward	12.3	5.6	6.4	6.9	15.2	13.6
	outward	4.5	3.1	4.5	0.1	4.2	5.0
Lao People's Democratic Republic	inward	3.0	17.7	26.1	1.4	32.1	30.5
	outward	..	..	..	..	1.2	0.5
Malaysia	inward	14.0	18.5	20.6	23.4	56.2	41.1
	outward	10.5	18.5	27.0	1.7	16.9	31.2
Myanmar	inward	16.1	7.0	20.4	5.4	53.1	40.2
	outward	..	..	..	..	..	..
Philippines	inward	13.0	18.0	14.3	10.2	24.2	13.1
	outward	1.3	0.6	16.8	0.9	2.7	3.9
Singapore	inward	53.7	79.9	60.0	82.6	121.5	154.7
	outward	26.8	39.5	30.6	21.2	61.2	92.7
Thailand	inward	15.7	15.3	14.6	9.7	24.4	34.9
	outward	1.0	1.8	2.7	0.5	1.8	2.9
Timor-Leste	inward	0.1	0.8	1.9	0.2	22.6	36.3
	outward	..	..	..	..	..	..
Viet Nam	inward	11.6	11.6	25.4	25.5	66.1	56.3
	outward	0.4	0.4	0.6	..	..	..
Oceania	inward	13.8	33.3	25.7	20.5	26.2	28.1
	outward	3.1	1.1	2.0	1.1	5.4	2.6
Cook Islands	inward	2.6	17.5	5.1	24.1	42.6	19.9
	outward	0.2	1.7	3.6	..	..	..
Fiji	inward	29.1	62.0	41.4	21.2	23.1	42.9
	outward	1.9	0.1	0.8	1.8	2.1	2.2
French Polynesia	inward	1.1	4.2	2.0	2.4	4.3	4.0
	outward	2.3	1.4	1.6	..	..	1.1
Kiribati	inward	2.4	39.4	33.3	1.4	135.6	199.4
	outward	..	..	..	..	..	..
Marshall Islands	inward	436.4	205.3	443.9	..	..	..
	outward	77.0	- 11.5	32.2	..	..	..
Micronesia, Federated States of	inward	-	0.7	..	..	..	..
	outward	..	..	..	..	..	..
Nauru	inward	4.6	- 1.1	2.5
	outward
New Caledonia	inward	- 0.6	66.1	22.6	2.8	4.1	25.6
	outward	2.8	2.7	2.1

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (continued)
(Per cent)

Region/economy	FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product			
	2005	2006	2007	1990	2000	2007	
Palau							
	inward	3.2	3.6	9.3	..	82.7	70.5
	outward	- 8.2	..	..	..	..	..
Papua New Guinea							
	inward	3.0	- 0.6	7.2	48.2	51.9	35.4
	outward	0.6	0.1	0.6	0.8	6.8	4.1
Samoa							
	inward	- 8.4	28.1	36.2	8.1	23.1	17.6
	outward	4.7	4.7	0.1	..	..	..
Solomon Islands							
	inward	26.0	23.2	49.3	33.5	44.5	48.3
	outward	0.2	8.7	9.7	..	..	..
Tonga							
	inward	52.2	33.7	82.4	0.7	9.8	33.9
	outward	..	..	..	..	..	..
Tuvalu							
	inward	- 0.1	32.9	11.0	..	..^a	109.7
	outward	..	..	..	..	..	..
Vanuatu							
	inward	18.6	59.2	41.9	71.8	149.5	130.7
	outward	1.1	1.0	0.8	..	..	4.1
South-East Europe and CIS (transition economies)							
	inward	14.3	19.7	20.9	..	15.7	28.0
	outward	6.8	8.3	12.7	..	6.0	15.8
South-East Europe							
	inward	21.1	35.6	35.3	..	15.1	55.0
	outward	1.3	1.4	4.1	..	3.8	4.2
Albania							
	inward	6.7	7.1	12.3	..	6.7	21.3
	outward	0.1	0.2	0.3	..	..	0.2
Bosnia and Herzegovina							
	inward	27.6	30.0	71.1	..	21.1	40.9
	outward	0.1	0.1	0.3	..	..	0.1
Croatia							
	inward	15.8	25.9	32.1	..	15.1	87.0
	outward	2.1	1.7	1.8	..	4.5	6.8
Serbia and Montenegro							
	inward	46.3	75.2	44.9	..	..	31.7
	outward	1.4	2.1	12.1	..	..	..
Serbia							
	inward	38.6	69.9	36.8	..	..	31.7
	outward	1.4	1.7	10.8	..	..	..
Montenegro							
	inward	142.3	169.4	200.5	..	..	..
	outward	1.3	9.0	36.0	..	..	..
The FYR of Macedonia							
	inward	9.8	38.6	24.6	..	15.0	41.1
	outward	0.3	-	- 0.1	..	0.4	0.5
CIS							
	inward	13.5	18.0	19.7	..	15.7	26.0
	outward	7.5	9.1	13.5	..	6.2	16.4
Armenia							
	inward	16.4	20.0	16.9	..	30.5	26.6
	outward	0.5	0.1	- 0.1	..	-	0.1
Azerbaijan							
	inward	30.7	- 9.6	- 81.8	..	70.8	22.4
	outward	22.3	11.3	4.9	..	0.1	15.9
Belarus							
	inward	3.8	3.2	12.9	..	12.5	10.0
	outward	-	-	-	..	0.2	0.1
Georgia							
	inward	25.2	51.0	60.2	..	23.7	51.1
	outward	- 5.0	- 0.8	2.7	..	..	0.8
Kazakhstan							
	inward	12.3	25.4	32.5	..	55.1	41.9
	outward	- 0.9	- 1.6	10.0	..	0.1	2.1
Kyrgyzstan							
	inward	10.8	38.3	33.1	..	31.5	21.8
	outward	-	-	-	..	2.4	0.5

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Annex table B.3. FDI flows as a percentage of gross fixed capital formation, 2005–2007, and FDI stocks as a percentage of gross domestic product, 1990, 2000, 2007, by region and economy (concluded)

(Per cent)

Region/economy	FDI flows as a percentage of gross fixed capital formation			FDI stocks as a percentage of gross domestic product		
	2005	2006	2007	1990	2000	2007
Moldova, Republic of						
inward	31.9	29.1	37.3	..	34.8	41.2
outward	-	- 0.1	1.0	..	1.8	0.9
Russian Federation						
inward	9.5	17.8	19.3	..	12.4	25.1
outward	9.4	12.7	16.8	..	7.8	19.8
Tajikistan						
inward	27.5	111.5	99.9	..	15.8	28.2
outward	..	..	..	..	..	..
Turkmenistan						
inward	31.4	47.0	41.9	..	22.8	49.1
outward	..	..	..	..	..	..
Ukraine						
inward	41.2	21.1	25.6	..	12.4	27.0
outward	1.5	- 0.5	1.7	..	0.5	4.3
Uzbekistan						
inward	2.8	5.5	5.6	..	5.1	7.4
outward	..	..	..	..	..	..
Memorandum						
All developing economies, excluding China						
inward	13.3	15.8	16.2	14.6	27.1	35.5
outward	5.9	9.0	9.1	4.4	15.2	20.7
Developing economies and transition economies						
inward	11.6	13.1	13.4	13.6	24.7	29.6
outward	4.5	6.6	7.0	4.0	12.6	16.5
Least developed countries (LDCs) ^b						
inward	11.5	16.6	14.7	7.0	21.8	24.1
outward	2.0	1.3	1.3	0.9	2.6	2.2
Major petroleum exporters ^c						
inward	14.2	14.7	13.4	9.3	15.5	16.9
outward	5.0	6.6	9.5	2.0	3.5	5.6
Major exporters of manufactures ^d						
inward	9.5	10.2	10.4	15.5	25.9	30.7
outward	3.5	6.1	5.5	4.4	14.4	18.7
Euro zone (of EU) ^e						
inward	12.0	14.4	18.4	8.7	21.5	37.8
outward	23.1	22.4	30.7	8.9	29.7	48.1
EU-15, 1995 ^f						
inward	17.5	17.8	22.5	10.8	25.9	40.5
outward	23.5	22.2	34.4	11.5	37.9	51.3
EU-25, 2005 ^g						
inward	18.0	18.2	22.4	10.7	26.0	40.9
outward	22.4	21.5	32.5	11.4	36.3	48.7

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Negative stock value. However, this value is included in the regional and global total.

^b Least developed countries comprise: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, São Tomé and Príncipe, Senegal, Sierra Leone, Solomon Islands, Somalia, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

^c Major petroleum exporters include: Algeria, Angola, Bahrain, Brunei Darussalam, Congo, Gabon, Indonesia, Islamic Republic of Iran, Iraq, Kuwait, Libyan Arab Jamahiriya, Netherlands Antilles, Nigeria, Oman, Qatar, Saudi Arabia, Syrian Arab Republic, Trinidad and Tobago, United Arab Emirates, Bolivarian Republic of Venezuela and Yemen.

^d Major exporters of manufactures include: Brazil, China, Hong Kong (China), India, Republic of Korea, Malaysia, Mexico, Philippines, Singapore, Taiwan Province of China, Thailand and Turkey.

^e Euro zone (of EU) members: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Slovenia and Spain.

^f EU-15, 1995 include: Austria, Belgium and Luxembourg, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and United Kingdom.

^g EU-25, 2005 include: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

Annex table B.4. Value of cross-border M&As, by region/economy of seller/purchaser, 2005–2008
(Millions of dollars)

Region/economy	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
World	929 362	1 118 068	1 637 107	621 282	929 362	1 118 068	1 637 107	621 282
Developed economies	820 358	969 116	1 454 084	508 578	777 609	930 101	1 410 802	504 014
Europe	601 820	600 562	824 976	323 119	516 887	548 613	830 205	305 350
European Union	579 026	556 888	782 024	306 934	486 504	482 214	784 208	285 072
Austria	2 667	2 637	8 982	1 275	4 757	8 475	4 367	1 715
Belgium	7 183	6 844	5 427	2 323	7 670	7 614	9 440	850
Bulgaria	2 548	789	854	4	2	-	5	1
Cyprus	112	1 893	1 380	625	188	2 851	1 615	2 524
Czech Republic	6 378	716	354	5 008	659	847	219	1
Denmark	12 492	14 434	11 211	1 244	12 320	4 759	9 121	1 128
Estonia	82	4	13	-	16	180	-	-
Finland	3 859	3 896	11 767	1 795	3 771	4 472	897	5 337
France	54 140	47 037	62 435	11 963	87 760	72 893	111 019	40 671
Germany	87 205	76 609	100 977	24 943	41 485	53 376	111 528	53 876
Greece	957	8 250	863	5 020	1 355	6 344	829	1 539
Hungary	2 498	2 524	721	1 508	442	1 710	1	41
Ireland	2 662	5 363	5 404	2 471	5 307	6 408	11 126	1 809
Italy	50 083	38 504	31 439	11 518	34 817	21 065	73 868	33 821
Latvia	9	11	33	195	-	-	4	-
Lithuania	61	88	35	52	-	-	30	-
Luxembourg	10 000	37 657	15 985	4 108	10 301	55 901	25 165	9 090
Malta	12	517	24	25	-	115	110	-
Netherlands	107 194	34 665	209 798	13 665	88 772	24 443	30 876	52 528
Poland	1 598	974	1 346	457	701	2 734	923	271
Portugal	4 499	3 884	1 735	463	1 232	4 372	4 422	2 641
Romania	1 851	5 324	1 784	440	-	-	-	4
Slovakia	120	1 426	50	75	496	1	317	-
Slovenia	160	15	52	405	59	29	124	319
Spain	27 944	21 259	66 030	63 950	30 654	87 553	50 554	7 069
Sweden	16 752	22 340	12 369	11 653	20 330	10 685	41 707	6 091
United Kingdom	175 960	219 229	230 959	141 750	133 409	105 390	295 942	63 743
Other developed Europe	22 794	43 673	42 952	16 185	30 382	66 399	45 997	20 278
Andorra	-	1 174	-	-	433	-	-	-
Gibraltar	4	-	50	218	13	404	116	7
Guernsey	-	42	325	17	-	804	1 053	77
Iceland	12	110	186	-	2 304	2 386	3 615	666
Isle of Man	606	156	221	-	489	976	363	8
Jersey	2 204	254	879	1 382	109	917	1 158	1 096
Liechtenstein	-	-	-	-	-	154	270	-
Monaco	459	13	136	-	4	-	-	-
Norway	8 109	5 933	8 313	6 289	9 781	10 964	10 784	1 700
Switzerland	11 401	35 992	32 843	8 278	17 249	49 793	28 639	16 726
North America	183 360	322 107	503 828	157 612	202 089	291 089	476 739	149 513
Canada	34 847	66 973	124 468	22 890	30 555	49 104	80 576	40 727
United States	148 513	255 134	379 359	134 722	171 534	241 985	396 164	108 786
Other developed economies	35 178	46 447	125 280	27 847	58 633	90 398	103 858	49 151
Australia	17 146	23 709	54 661	16 077	40 615	42 427	53 231	16 649
Bermuda	2 586	3 263	44 187	778	1 736	1 909	1 692	3 992
Israel	2 338	8 404	1 044	888	1 519	10 077	8 316	786
Japan	9 853	5 411	21 419	9 904	13 220	34 006	35 923	24 499
New Zealand	3 255	5 660	3 970	201	1 544	1 978	4 696	3 224
Developing economies	95 738	131 831	152 942	94 258	99 455	156 807	179 969	97 216
Africa	11 259	19 806	10 217	23 369	18 496	24 295	5 501	10 363
North Africa	3 404	6 774	2 378	16 267	14 145	5 635	1 680	4 148
Algeria	-	18	-	68	-	-	-	-
Egypt	1 513	2 976	1 909	15 891	14 127	5 633	1 680	4 148
Libyan Arab Jamahiriya	-	1	200	307	-	-	-	-
Morocco	1 456	135	269	-	18	1	-	-
Sudan	390	1 332	-	-	-	-	-	-
Tunisia	46	2 313	-	-	-	-	-	-
Other Africa	7 855	13 032	7 839	7 102	4 351	18 660	3 822	6 215
Angola	175	1	60	-	-	-	-	-
Botswana	-	57	1	-	-	-	-	-
Burkina Faso	-	289	-	0	-	-	-	-
Cameroon	-	-	-	1	-	-	-	-
Congo	13	20	-	435	-	-	-	-
Congo, Democratic Republic of	-	-	45	-	-	-	-	-
Gabon	-	-	98	-	-	-	-	-
Ghana	-	3	2	-	16	-	-	-
Guinea	0	2	-	-	-	-	-	-
Kenya	32	2	6	-	12	-	-	16
Liberia	6	-	-	-	6	-	-	-
Madagascar	-	1	-	-	-	-	-	-

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Annex table B.4. Value of cross-border M&As, by region/economy of seller/purchaser, 2005–2008 (continued)
(Millions of dollars)

Region/economy	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
Malawi	-	-	5	-	-	-	-	-
Mali	-	1	-	-	-	-	-	-
Mauritania	-	-	375	-	-	-	-	-
Mauritius	333	268	-	16	93	131	112	13
Mozambique	-	34	2	-	-	-	-	-
Namibia	7	181	2	5	-	-	-	11
Nigeria	43	4 883	384	-	-	-	174	1 044
Rwanda	-	-	-	6	-	-	-	-
Senegal	-	-	-	-	22	-	-	-
Seychelles	-	-	89	-	115	-	0	67
Sierra Leone	-	-	31	-	-	-	-	-
South Africa	7 238	7 288	6 691	6 634	4 059	18 529	3 505	2 863
Zambia	8	4	-	1	29	-	25	-
Zimbabwe	0	-	49	4	-	1	5	1
Latin America and the Caribbean	17 905	22 561	30 696	14 003	11 458	33 820	41 923	10 194
South and Central America	15 124	15 203	28 153	7 537	10 453	30 739	36 462	8 109
South America	10 556	10 520	18 919	5 511	6 695	25 758	16 989	7 680
Argentina	1 329	430	1 404	462	2 738	245	1 144	2 244
Bolivia	-	-	36	-	-	39	112	-
Brazil	3 091	6 837	8 575	3 417	2 684	22 620	11 661	4 454
Chile	260	1 393	2 663	125	959	1 427	1 682	70
Colombia	5 775	1 399	4 416	46	258	778	1 199	706
Ecuador	-	21	29	0	-	-	13	-
Guyana	-	-	3	1	-	-	-	-
Paraguay	-	-	10	-	-	-	-	-
Peru	76	234	1 196	92	56	187	235	205
Uruguay	0	167	157	8	-	3	-	-
Venezuela	26	39	431	1 360	-	460	942	-
Central America	4 567	4 683	9 234	2 026	3 758	4 981	19 473	429
Belize	-	-	43	-	-	4	-	-
Costa Rica	59	294	200	403	-	97	822	-
El Salvador	382	173	835	-	15	-	-	-
Guatemala	10	15	5	-	1	334	140	-
Honduras	-	-	140	-	-	-	-	-
Mexico	3 598	2 383	6 003	1 015	3 688	4 299	18 243	429
Nicaragua	-	2	-	-	-	-	-	-
Panama	518	1 817	2 007	608	54	247	269	-
Caribbean	2 781	7 358	2 543	6 466	1 004	3 081	5 461	2 084
Antigua and Barbuda	160	85	1	-	-	-	-	-
Aruba	1	468	-	-	-	-	-	-
Bahamas	154	3 487	-	213	8	322	1 814	213
Barbados	-	999	1	-	166	-	-	-
British Virgin Islands	603	754	568	2 092	52	168	1 040	195
Cayman Islands	451	231	70	397	10	1 676	2 370	1 654
Dominican Republic	-	427	42	25	-	-	93	-
Jamaica	-	109	595	1	1	200	3	-
Netherlands Antilles	63	10	-	-	-	350	-	-
Puerto Rico	1 219	641	1 264	1 500	645	210	141	-
Trinidad and Tobago	129	58	2	2 236	30	155	-	-
Turks and Caicos Islands	-	90	-	-	-	0	-	-
Asia and Oceania	66 573	89 463	112 029	56 886	69 501	98 692	132 544	76 659
Asia	66 554	89 381	111 795	56 562	69 499	98 484	132 269	76 645
West Asia	14 100	27 979	30 272	22 767	20 293	41 763	43 244	23 424
Bahrain	455	2 361	2 865	1 427	1 911	7 057	3 090	2 224
Iraq	-	-	-	-	-	-	33	-
Jordan	89	750	440	42	-	-	45	322
Kuwait	-	573	5 652	211	3 627	2 875	2 532	139
Lebanon	236	6 754	-	-	103	1 522	210	-
Oman	143	1	621	-	33	5	9	565
Qatar	-	-	-	124	352	127	5 263	2 400
Saudi Arabia	-	21	602	26	6 603	5 398	13 207	1 080
Turkey	12 787	16 477	15 501	8 619	336	1 493	1 187	1 564
United Arab Emirates	390	326	4 446	12 319	7 327	23 286	17 669	15 131
Yemen	-	716	144	-	-	-	-	-
South, East and South-East Asia	52 454	61 402	81 523	33 794	49 205	56 721	89 025	53 221
Bangladesh	-	330	4	-	-	-	-	-
Brunei Darussalam	-	0	0	-	-	112	-	-
Cambodia	-	9	6	-	-	-	-	-
China	11 590	12 128	15 537	4 691	9 546	14 906	4 452	26 492
Hong Kong, China	10 022	14 552	26 811	6 946	12 295	11 098	8 671	2 756
India	3 754	4 740	5 580	2 254	4 958	6 586	30 414	8 556
Indonesia	6 580	918	2 684	2 301	699	597	1 805	208

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Annex table B.4. Value of cross-border M&As, by region/economy of seller/purchaser, 2005–2008 (concluded)
(Millions of dollars)

Region/economy	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
Iran, Islamic Republic of	-	-	-	695	-	-	-	-
Korea, Republic of	6 672	3 015	2 533	960	1 702	4 063	10 898	4 144
Macao, China	67	413	140	593	0	-	7	-
Malaysia	2 528	3 531	4 462	2 718	3 427	3 638	4 783	1 898
Mongolia	-	2	7	-	-	-	-	-
Myanmar	-	1 010	-	-	-	-	1	-
Nepal	-	-	-	-	-	15	-	-
Pakistan	207	3 139	1 676	1 136	-	30	-	-
Philippines	356	81	3 849	1 465	7 361	374	287	11
Singapore	6 862	8 427	8 850	7 397	7 581	14 500	25 274	6 795
Sri Lanka	5	4	6	301	-	-	13	6
Taiwan Province of China	3 142	5 042	5 944	1 359	562	429	1 851	892
Thailand	659	4 028	2 871	332	1 075	362	549	1 463
Viet Nam	10	34	563	644	-	12	22	-
Oceania	19	82	234	324	3	208	275	14
Fiji	1	-	12	2	-	-	-	-
Guam	-	72	-	-	-	-	-	-
Marshall Islands	-	-	45	-	-	-	-	-
New Caledonia	-	-	-	-	3	100	-	-
Niue	6	-	-	-	-	-	-	-
Papua New Guinea	9	7	160	-	-	-	275	-
Samoa	-	-	3	321	-	18	-	-
Solomon Islands	-	-	14	-	-	-	-	-
Tonga	-	-	-	-	-	-	-	14
Vanuatu	-	3	-	-	-	-	-	-
South-East Europe and CIS	12 781	17 113	30 081	18 447	22 802	10 833	18 394	14 220
South-East Europe	1 666	6 626	2 196	476	57	18	1 049	8
Albania	7	41	164	3	-	-	-	-
Bosnia and Herzegovina	21	79	1 022	-	-	-	-	-
Croatia	536	2 535	672	62	51	8	-	2
Montenegro	-	-	0	-	-	-	4	-
Serbia	-	112	274	405	-	5	-	-
Serbia and Montenegro	555	3 378	-	6	6	5	1 046	6
The FYR of Macedonia	0	280	53	-	-	-	-	-
Yugoslavia (former)	547	203	11	-	-	-	-	-
CIS	11 115	10 486	27 885	17 971	22 745	10 815	17 345	14 211
Armenia	4	-	423	204	-	-	-	-
Belarus	4	-	-	-	-	-	-	-
Georgia	232	115	53	-	-	-	-	-
Kazakhstan	1 474	-	2 034	86	430	3 254	3 139	31
Kyrgyzstan	150	-	179	-	-	-	-	-
Moldova, Republic of	-	10	24	-	-	-	-	-
Russian Federation	2 827	10 008	23 508	11 753	21 925	7 541	14 156	13 171
Tajikistan	12	-	5	-	-	-	-	-
Turkmenistan	47	-	-	-	-	-	-	-
Ukraine	6 365	243	1 660	5 886	390	20	49	1 009
Uzbekistan	-	110	-	42	-	-	-	-

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

Note: The data cover only those deals that involve an acquisition of an equity of more than 10%.

Annex table B.5. Number of cross-border M&As, by region/economy of seller/purchaser, 2005–2008
(Number of deals)

Region/economy	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
World	8 560	9 075	10 145	4 370	8 560	9 075	10 145	4 370
Developed economies	6 830	7 151	7 878	3 323	6 761	7 233	8 143	3 414
Europe	3 996	4 076	4 443	1 893	3 806	4 036	4 610	1 987
European Union	3 717	3 760	4 081	1 752	3 430	3 624	4 171	1 798
Austria	97	65	74	28	97	95	127	38
Belgium	116	126	104	52	103	96	112	42
Bulgaria	28	26	25	9	4	2	2	3
Cyprus	9	12	27	20	9	26	32	12
Czech Republic	33	55	56	35	11	16	12	5
Denmark	119	124	110	46	147	120	103	72
Estonia	12	9	12	4	4	8	12	4
Finland	90	113	115	46	93	109	91	65
France	435	443	431	158	454	468	588	241
Germany	582	622	646	227	433	444	491	213
Greece	25	22	19	9	29	32	24	17
Hungary	25	47	29	10	13	16	18	7
Ireland	78	73	89	36	81	112	140	45
Italy	225	208	239	101	165	155	232	85
Latvia	15	9	14	8	2	1	3	1
Lithuania	15	17	16	9	4	3	3	4
Luxembourg	33	33	44	21	41	63	62	42
Malta	3	4	3	1	-	2	2	1
Netherlands	281	216	296	116	249	263	307	158
Poland	51	47	65	22	21	14	40	17
Portugal	56	46	42	20	25	38	37	23
Romania	41	45	45	20	2	4	1	3
Slovakia	16	15	13	6	4	6	5	7
Slovenia	6	8	10	3	7	8	10	3
Spain	152	223	235	124	154	187	218	84
Sweden	195	207	246	117	215	233	293	130
United Kingdom	979	945	1 076	504	1 063	1 103	1 206	476
Other developed Europe	279	316	362	141	376	412	439	189
Andorra	-	1	-	1	1	1	-	-
Gibraltar	2	1	2	2	1	4	3	2
Guernsey	-	5	11	3	1	15	23	5
Iceland	7	10	11	3	45	57	40	11
Isle of Man	7	6	4	3	11	9	19	2
Jersey	7	4	8	3	3	10	28	8
Liechtenstein	-	2	2	-	-	1	2	1
Monaco	2	1	2	1	1	-	-	1
Norway	102	111	126	53	113	112	122	57
Switzerland	151	175	196	72	200	203	201	102
North America	2 161	2 368	2 647	1 095	2 225	2 430	2 604	1 101
Canada	412	496	607	251	488	552	612	235
United States	1 749	1 872	2 040	844	1 737	1 878	1 992	866
Other developed economies	673	707	788	335	730	767	929	326
Australia	338	377	417	195	363	398	503	140
Bermuda	18	28	21	13	26	32	38	23
Israel	40	45	46	22	55	59	69	25
Japan	180	150	169	72	255	235	248	122
New Zealand	97	107	135	33	31	43	71	16
Developing economies	1 556	1 694	1 972	891	1 269	1 345	1 454	682
Africa	106	148	142	76	95	93	77	42
North Africa	29	25	22	17	12	17	9	4
Algeria	2	5	2	2	-	1	-	-
Egypt	13	14	12	10	3	14	6	3
Libyan Arab Jamahiriya	2	1	1	1	1	-	1	-
Morocco	6	2	4	2	8	2	2	1
Sudan	2	1	-	1	-	-	-	-
Tunisia	4	2	3	1	-	-	-	-
Other Africa	77	123	120	59	83	76	68	38
Angola	1	2	2	-	-	-	-	-
Botswana	1	2	3	1	-	-	-	-
Burkina Faso	-	1	-	1	-	-	-	-
Cameroon	1	-	-	2	-	-	-	-
Congo	1	3	-	1	-	-	-	-
Congo, Democratic Republic of	-	-	4	-	-	-	-	-
Gabon	-	1	4	1	-	-	-	-
Ghana	1	2	4	1	1	-	-	-
Guinea	1	1	-	-	-	-	-	-
Kenya	3	3	2	5	2	4	4	1
Liberia	2	1	-	-	2	-	-	-
Madagascar	-	2	-	1	-	-	-	-

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Annex table B.5. Number of cross-border M&As, by region/economy of seller/purchaser, 2005–2008
(continued)
(Number of deals)

Region/economy	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
Malawi	-	-	2	-	-	-	-	-
Mali	-	2	1	-	-	-	-	-
Mauritania	-	-	1	-	-	-	-	-
Mauritius	6	5	2	2	17	11	7	2
Mozambique	-	6	2	-	-	-	-	-
Namibia	2	4	7	1	-	2	-	1
Nigeria	3	5	3	1	3	-	4	6
Rwanda	-	1	3	2	-	-	-	-
Senegal	1	-	1	1	1	-	-	-
Seychelles	-	-	2	2	3	-	2	2
Sierra Leone	-	-	1	2	-	-	-	-
South Africa	44	71	59	28	51	55	46	24
Zambia	3	3	1	2	1	1	1	-
Zimbabwe	1	1	7	2	1	3	2	1
Latin America and the Caribbean	215	331	497	206	153	213	248	108
South and Central America	159	275	415	178	101	143	170	73
South America	111	185	299	141	62	92	116	54
Argentina	17	46	51	19	13	12	7	4
Bolivia	1	1	4	1	-	1	3	1
Brazil	51	75	135	67	30	43	58	40
Chile	12	26	29	18	7	20	22	3
Colombia	15	15	28	12	5	6	14	2
Ecuador	1	6	8	2	-	-	1	1
Guyana	-	1	1	1	-	-	-	-
Paraguay	-	-	2	2	-	-	-	-
Peru	6	10	28	11	4	3	2	2
Uruguay	2	1	6	3	2	1	-	-
Venezuela	5	4	6	5	-	6	9	1
Central America	48	90	116	37	39	51	54	19
Belize	2	-	1	-	-	1	-	-
Costa Rica	3	2	7	5	2	3	6	-
El Salvador	3	4	5	-	2	9	-	-
Guatemala	2	2	3	2	5	10	4	2
Honduras	1	-	2	-	-	-	-	-
Mexico	31	73	85	25	25	24	36	15
Nicaragua	1	2	1	-	-	-	-	1
Panama	5	7	12	5	5	4	8	1
Caribbean	56	56	82	28	52	70	78	35
Antigua and Barbuda	6	1	1	-	-	2	-	-
Aruba	1	3	-	-	-	-	-	-
Bahamas	3	3	2	3	3	8	1	4
Barbados	1	1	2	1	7	3	9	3
British Virgin Islands	17	16	28	11	13	16	21	7
Cayman Islands	7	7	9	2	5	17	35	18
Dominican Republic	-	2	6	1	-	1	1	-
Jamaica	4	4	13	2	6	7	4	-
Netherlands Antilles	7	4	2	1	2	4	1	-
Puerto Rico	5	9	13	3	9	8	4	1
Trinidad and Tobago	3	2	2	2	3	1	-	1
Turks and Caicos Islands	-	2	1	-	-	1	-	-
Asia and Oceania	1 235	1 215	1 333	609	1 021	1 039	1 129	532
Asia	1 223	1 204	1 320	605	1 020	1 032	1 124	530
West Asia	73	94	132	70	78	108	135	98
Bahrain	11	9	15	5	12	20	22	16
Iraq	4	-	-	1	-	-	1	-
Jordan	4	9	3	2	3	3	3	2
Kuwait	2	4	8	10	13	10	16	10
Lebanon	3	3	-	-	2	2	2	1
Oman	2	2	10	1	2	4	2	5
Qatar	-	-	2	2	4	1	8	8
Saudi Arabia	1	5	11	5	7	13	10	7
Turkey	27	45	53	21	11	11	10	9
United Arab Emirates	19	16	29	23	24	44	61	40
Yemen	-	1	1	-	-	-	-	-
South, East and South-East Asia	1 150	1 110	1 188	535	942	924	989	432
Bangladesh	1	1	1	-	-	-	-	-
Brunei Darussalam	-	5	2	-	-	1	-	-
Cambodia	2	3	3	1	-	-	-	-
China	258	238	274	133	102	88	122	51
Hong Kong, China	217	195	232	73	189	186	186	62
India	121	161	167	66	122	162	194	110

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**Annex table B.5. Number of cross-border M&As, by region/economy of seller/purchaser, 2005–2008
(concluded)
(Number of deals)**

Region/economy	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
Indonesia	43	32	39	24	18	15	13	7
Iran, Islamic Republic of	-	-	-	3	-	-	-	-
Korea, Republic of	41	44	30	20	32	56	56	29
Macao, China	7	5	6	1	1	1	1	-
Malaysia	166	116	127	58	193	164	162	72
Mongolia	-	1	3	-	-	-	-	-
Myanmar	-	1	-	-	-	-	1	-
Nepal	-	-	-	1	-	1	-	-
Pakistan	5	7	6	7	-	3	-	-
Philippines	22	17	14	11	17	12	17	5
Singapore	187	188	185	75	221	189	192	69
Sri Lanka	1	2	5	2	1	2	4	1
Taiwan Province of China	33	43	39	20	22	20	25	13
Thailand	40	45	39	25	22	19	15	12
Viet Nam	4	5	15	14	1	5	1	-
Oceania	12	11	13	4	1	7	5	2
Fiji	3	2	1	3	-	1	-	-
Guam	-	2	-	-	-	-	-	-
Marshall Islands	-	-	1	-	-	-	-	-
New Caledonia	1	-	-	-	1	2	-	-
Niue	2	-	-	-	-	-	-	-
Papua New Guinea	4	3	4	-	-	-	3	1
Samoa	-	2	3	1	-	1	-	-
Solomon Islands	-	-	1	-	-	-	-	-
Tonga	-	-	1	-	-	-	-	1
Vanuatu	-	1	-	-	-	-	-	-
South-East Europe and CIS	170	229	295	155	87	96	133	84
South-East Europe	40	49	70	26	4	10	10	3
Albania	1	1	4	4	-	-	-	-
Bosnia and Herzegovina	5	8	8	2	-	-	-	1
Croatia	8	11	17	8	3	5	6	1
Montenegro	-	1	2	-	-	-	1	-
Serbia	-	2	14	10	-	1	-	-
Serbia and Montenegro	14	12	4	2	1	4	3	1
The FYR of Macedonia	1	5	20	-	-	-	-	-
Yugoslavia (former)	11	9	1	-	-	-	-	-
CIS	130	180	225	129	83	86	123	81
Armenia	2	2	5	3	-	-	-	-
Belarus	1	1	4	1	-	1	1	-
Georgia	5	6	7	2	-	-	1	-
Kazakhstan	9	4	15	4	9	6	17	4
Kyrgyzstan	2	2	4	-	-	-	-	-
Moldova, Republic of	1	5	1	1	-	-	-	1
Russian Federation	90	117	136	89	67	75	94	72
Tajikistan	1	-	3	-	-	-	-	-
Turkmenistan	2	-	1	-	-	-	-	-
Ukraine	17	37	45	25	7	3	10	3
Uzbekistan	-	6	3	4	-	1	-	-

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

Note: The data cover only those deals that involve an acquisition of an equity of more than 10%.

Annex table B.6. Value of cross-border M&As, by sector/industry, 2005–2008
(Millions of dollars)

Sector/industry	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
Total industry	929 362	1 118 068	1 637 107	621 282	929 362	1 118 068	1 637 107	621 282
Primary	155 840	108 769	109 774	61 783	129 671	94 253	130 839	26 074
Agriculture, hunting, forestry, and fisheries	7 992	3 017	5 056	1 221	1 484	3 124	940	2 755
Mining, quarrying and petroleum	147 849	105 752	104 719	60 563	128 187	91 130	129 899	23 319
Secondary	255 004	304 777	567 397	213 028	183 430	241 069	370 307	152 182
Food, beverages and tobacco	48 760	32 580	69 385	40 840	28 846	22 858	48 195	10 064
Textiles, clothing and leather	3 574	7 065	9 967	1 832	4 031	3 351	1 935	1 529
Wood and wood products	7 652	9 367	19 048	5 391	3 867	5 667	11 856	1 434
Publishing and Printing	15 413	25 525	25 310	4 168	9 045	10 219	13 834	4 786
Coke, petroleum and nuclear fuel	2 741	7 933	9 126	1 507	10 592	9 100	10 497	977
Chemicals and chemical products	65 211	60 661	133 362	61 037	34 421	41 335	115 471	47 608
Rubber and plastic products	3 506	8 567	9 946	743	1 711	5 809	1 641	552
Non-metallic mineral products	15 049	10 471	45 646	25 569	19 385	10 626	21 857	21 513
Metals and metal products	33 171	50 812	122 587	20 449	21 874	48 218	51 572	25 931
Machinery and equipment	7 357	18 935	24 035	6 433	9 161	21 053	12 923	3 200
Electrical and electronic equipment	19 899	42 262	27 874	15 276	18 839	38 533	43 955	16 537
Motor vehicles and other transport equipment	12 238	17 227	30 242	11 682	10 995	10 142	16 103	13 729
Precision instruments	16 289	11 490	39 793	14 747	8 985	13 448	20 159	3 798
Other manufacturing	4 143	1 882	1 077	3 355	1 677	711	309	525
Services	518 517	704 522	959 936	346 457	616 215	782 634	1 135 245	443 013
Electricity, gas, and water	75 930	62 765	130 370	47 173	49 420	26 786	75 620	35 283
Construction	8 627	11 814	11 211	1 296	7 406	7 196	9 833	586
Trade	38 451	33 277	76 565	33 297	18 349	17 335	25 858	8 917
Hotels and restaurants	13 554	44 415	28 794	7 117	3 722	14 387	3 442	3 207
Transport, storage and communications	108 474	176 386	121 622	45 707	70 790	128 800	76 773	18 330
Finance	113 868	167 678	346 289	110 797	392 815	515 577	842 167	324 855
Business activities	121 249	153 819	180 648	87 553	56 288	53 969	76 825	45 089
Public administration and defense	449	301	17	17	1 595	3 905	830	542
Health and social services	9 842	17 280	10 340	3 795	4 922	1 828	6 273	1 065
Educational services	1 509	1 591	1 203	280	90	433	560	82
Community, social and personal service activities	26 176	31 386	44 206	8 226	10 235	11 467	14 210	4 612
Other services	390	3 808	8 670	1 199	583	950	2 855	445
Unspecified	-	-	-	15	46	111	716	14

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

Note: The data cover only those deals that involve an acquisition of of an equity of more than 10%.

Annex table B.7. Number of cross-border M&As, by sector/industry, 2005–2008
(Number of deals)

Sector/industry	Sales				Purchases			
	2005	2006	2007	2008 (Jan–Jun)	2005	2006	2007	2008 (Jan–Jun)
Total industry	8 560	9 075	10 145	4 370	8 560	9 075	10 145	4 370
Primary	541	677	773	354	433	532	615	258
Agriculture, hunting, forestry, and fisheries	70	72	82	31	39	44	57	20
Mining, quarrying and petroleum	471	605	691	323	394	488	558	238
Secondary	2 756	2 862	3 130	1 383	2 375	2 494	2 768	1 304
Food, beverages and tobacco	319	320	361	153	283	259	337	139
Textiles, clothing and leather	100	108	98	45	56	67	75	32
Wood and wood products	128	173	179	75	92	113	134	54
Publishing and printing	166	157	181	55	149	165	163	65
Coke, petroleum and nuclear fuel	25	44	25	13	21	22	26	13
Chemicals and chemical products	517	480	529	218	417	416	468	209
Rubber and plastic products	79	110	108	50	80	82	74	33
Non-metallic mineral products	124	118	172	51	121	126	144	59
Metals and metal products	281	283	316	168	208	221	260	156
Machinery and equipment	233	270	313	167	205	235	283	161
Electrical and electronic equipment	361	391	400	177	362	410	401	178
Motor vehicles and other transport equipment	158	153	170	76	158	138	180	79
Precision instruments	206	207	211	99	172	193	186	105
Other manufacturing	59	48	67	36	51	47	37	21
Services	5 263	5 536	6 241	2 631	5 743	6 041	6 752	2 801
Electricity, gas, and water	192	231	252	115	142	175	194	98
Construction	136	152	193	69	98	100	129	55
Trade	748	686	846	383	474	534	523	221
Hotels and restaurants	210	221	226	78	90	92	101	34
Transport, storage and communications	603	608	638	237	472	489	487	195
Finance	934	908	1 018	423	2 653	2 757	3 115	1 262
Business activities	2 019	2 250	2 509	1 062	1 546	1 583	1 845	763
Public administration and defense	22	13	14	9	16	19	18	9
Health and social services	103	108	139	59	60	48	81	28
Educational services	26	30	28	20	22	18	14	9
Community, social and personal service activities	238	276	306	139	138	177	192	96
Other services	32	53	72	37	32	49	53	31
Unspecified	-	-	1	2	9	8	10	7

Source: UNCTAD cross-border M&A database (www.unctad.org/fdistatistics).

Note: The data cover only those deals that involve an acquisition of an equity of more than 10%.

Annex table B.8. Number of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs abroad		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Albania	..	..	561	..	..	..
Armenia	1 604 ^c	..	..	..	..	..
Australia	..	..	..	4 012 ^{d,e}	..	..
Austria ^e	2 679	2 665	2 721	2 586	2 727	3 013
Bangladesh ^b	930 ^c	..	..	..	..	..
Cambodia ^b	23 ^d	..	..	..	..	..
China	38 581	42 753	..	..	..	..
Finland	2 448 ^f	..	..	..	..	..
France	9 057 ^f	..	..	8 409 ^f	..	..
Germany	9 300	9 225	9 193	22 816	22 997	23 704
Hong Kong, China	6 983	7 279	7 488	..	..	..
Hungary	26 645 ^g	..	..	..	..	..
India	508	518	501	..	..	..
Indonesia ^b	1 244	1 237	1 648	..	..	..
Ireland ^e	607	551	..	..	..	..
Italy	1 843 ^c	..	..	2 573 ^c	..	..
Japan	2 038	2 230	2 185	13 875	14 996	15 850
Korea, Republic of	7 179 ⁱ	..	..	18 368	21 866	26 008
Lao People's Democratic Republic ^b	791 ^c	..	..	..	..	..
Luxembourg	733	729	..	767	795	861
Macao, China	723	1 024	1 314	35	46	37
Madagascar	8 797 ^h	..	..	..	..	..
Malaysia ^b	587	583	562	..	..	..
Myanmar ^b	8	15	5	..	..	..
Nepal ^b	524 ^c	..	..	..	..	..
Norway	5 105 ^h	..	..	..	..	..
Pakistan	..	..	..	66 ^f	..	..
Papua New Guinea ^b	1 887 ^h	..	..	..	..	..
Poland ^e	4 339 ^g	..	..	..	..	..
Romania	89 911 ^d	..	..	..	..	..
Singapore	817 ^j	814 ^j	..	10 464	10 781	10 796
Slovenia	2 182	2 266	2 220	945	971	949
Sri Lanka	1 766	1 867	1 871	..	..	..
Sweden ^e	10 077	9 864	10 435	..	..	..
Taiwan Province of China ^b	15 917	17 066	18 197	9 843	10 501	11 022
Tunisia	..	..	2 703	..	..	..
Turkey	1 091	2 039	2 750	..	..	..
United Republic of Tanzania ^b	492 ^g	..	..	..	..	..
United States	5 411	5 351	5 331	23 738	24 405	24 456
Vanuatu	19 ^d	..	..	..	..	..

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b Approval data.

^c 1999.

^d 2002.

^e Data refer to majority-owned affiliates only.

^f 2001.

^g 2000.

^h 1998.

ⁱ Approval data in 1998.

^j Data refer only to the manufacturing sector.

Annex table B.9. Employment in foreign affiliates in the host economy and in foreign affiliates of home-based TNCs, 2003–2005
(Thousands of employees)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Albania	..	..	24.1	..	..	..
Australia ^b	..	..	..	321.9 ^c	..	..
Austria	240.9	232.8	220.7	327.7	370.5	431.7
Belgium	..	..	..	209.7	..	..
Canada ^b	..	..	..	919.0 ^c	..	..
China	..	24 000.0	..	..	..	..
Czech Republic	600.1	620.4	636.6	16.8	24.8	27.4
Finland	219.2 ^f	..	..	324.5 ^b	331.8 ^b	350.7 ^b
France	1 880	..	..	..	..	..
Germany	2 162.0	2 280.0	2 138.0	4 517.0	4 605.0	4 977.0
Greece	..	..	..	32.0	66.0	68.0
Hong Kong, China ^b	..	543.0	579.0	..	..	..
Hungary	606.7 ^g	..	..	..	..	..
Ireland	149.1	149.5	150.4	..	..	..
Israel	81.9	..	..	125.6	..	..
Italy	560.1 ^h	..	..	642.5 ^h	..	..
Japan	434.9	430.9	525.6	3 766.2	4 138.6	4 360.5
Luxembourg	99.5	72.6	74.9	120.4	128.6	145.2
Macao, China	28.6	36.7	45.2	5.2	10.9	14.5
Madagascar	193.8 ⁱ	..	..	..	..	..
Mozambique ^d	13.6	13.2	15.1	..	..	..
Nepal ^d	73.5 ^h	..	..	..	..	..
Norway	78.6	..	..	..	..	..
Poland ^b	648.3 ^g	..	..	..	..	..
Portugal ^b	150.4 ^c	..	..	24.9	..	..
Singapore ^e	155.0	157.6	..	..	..	..
Slovenia	62.1	64.0	64.6	..	..	..
Sri Lanka ^d	397.2	415.7	..	..	..	..
Sweden ^b	564.2	544.6	557.5	956.4	953.6	..
Switzerland	301.2	315.0	324.1	1 808.9	1 861.7	2 002.2
Tunisia	..	..	259.8	..	..	..
United Republic of Tanzania ^d	80.6 ^g	..	..	..	..	..
United States ^b	5 713.2	5 617.1	5 530.1	9 657.5	10 068.4	10 333.3
Vanuatu	0.1 ^c	..	..	..	..	..

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b Data refer to majority-owned affiliates only.

^c 2002.

^d Approval data.

^e Data refer only to the manufacturing sector.

^f 2001.

^g 2000.

^h 1999.

ⁱ 1998.

Annex table B.10. Assets of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005

(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Austria	217 102 ^d	..	..	84 775 ^d	..	..
China	474 347	579 365	..	..	..	..
Finland	48 209 ^e	..	..	..	..	..
Germany	665 116 ^e	..	..	1 467 450 ^e	..	..
India	19 540	22 050	23 817	..	..	..
Japan	263 207	252 024	224 720	669 629 ^e	831 635	..
Norway	88 167 ^f	..	..	..	..	..
Poland ^b	46 251 ^d	..	..	..	..	..
Singapore ^c	19 101	20 769	..	..	..	..
Slovenia	15 108	16 276	16 534	..	..	..
United States	5 814 489	6 417 874	6 849 777	7 946 240	9 373 484	9 951 716

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).^a Or latest year available between 1998 and 2002.^b Data refer to majority-owned affiliates only.^c Data refer only to the manufacturing sector.^d 2000.^e 2001.^f 1998.**Annex table B.11. Wages and salaries in foreign affiliates in the host economy and in foreign affiliates of home-based TNCs, 2003–2005**

(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Australia ^b	..	..	..	7 607 ^c	..	..
Finland	5 574 ^d	..	..	..	..	..
France ^b	24 677 ^d	..	..	..	..	..
Hong Kong, China ^b	..	22 980	26 847	..	..	..
Ireland ^b	5 276	5 985	..	..	..	..
Japan	17 191 ^c	24 911	25 388	37 846	38 732	44 151
Norway	4 706	..	..	..	..	..
Sweden	20 135 ^b	..	..	35 435 ^c	..	..
United States	342 711	351 905	363 340	338 113	378 591	391 846

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).^a Or latest year available between 1998 and 2002.^b Data refer to majority-owned affiliates only.^c 2002.^d 2001.^e 1998.

Annex table B.12. Sales of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005
(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Australia ^b	..	..	..	77 325 ^c	..	..
Austria	90 073 ^{b,d}	..	..	67 307	..	..
Belgium ^b	..	..	..	88 466	..	..
Canada ^b	..	..	..	229 924 ^e	..	..
China	526 851	698 718	..	..	..	..
Czech Republic	75 839	98 681	112 535	3 187	5 620	7 743
Finland	47 389 ^d	..	..	127 456 ^b	147 418 ^b	104 215 ^b
France	278 132 ^d	..	..	320 664 ^e	..	..
Germany	954 252	1 183 687	805 005	1 533 801	1 729 526	1 274 530
Greece	..	..	..	5 675	6 088	4 560
Hong Kong, China ^b	..	232 772	266 827	..	..	..
Hungary	59 ^e	..	..	..	..	..
India	27 834	34 139	41 237	..	..	..
Ireland ^b	93 937	108 393	..	..	..	..
Israel	..	..	..	21 323	..	..
Italy	153 742 ^f	..	..	120 429 ^f	..	..
Japan	280 676	296 325	317 192	1 252 235	1 504 664	1 678 043
Luxembourg	16 320 ^g	..	..	34 196 ^d	..	..
Madagascar	1 181 ^f	..	..	..	..	..
Norway	25 753	..	..	..	..	..
Poland ^b	62 070 ^e	..	..	..	..	..
Portugal ^b	34 512 ^c	..	..	11 919	..	..
Singapore ^g	69 297	79 512	..	..	..	..
Slovenia	11 571	14 345	14 954	..	..	..
Sweden	193 592 ^b	..	..	305 966 ^c	..	..
United States	2 323 150	2 526 320	2 755 941	3 319 498	3 841 409	4 224 685

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b Data refer to majority-owned affiliates only.

^c 2002.

^d 2001.

^e 2000.

^f 1999.

^g Data refer only to the manufacturing sector.

Annex table B.13. Value added of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005

(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
China	140 142	..	..	..	..	..
Czech Republic	15 928	20 749	22 347	375	517	843
Finland	10 795 ^c	..	..	..	..	..
France	69 866 ^c	..	..	..	..	..
Hong Kong, China ^b	..	45 760	50 030	..	..	..
Hungary	11 060 ^d	..	..	..	..	..
Ireland ^b	38 441	37 957	..	..	..	..
Israel	6 449	..	..	9 212	..	..
Japan	36 893 ^e	46 498	49 772	..	..	..
Madagascar	359 ^f	..	..	..	..	..
Norway	8 618	..	..	..	..	..
Portugal ^b	6 156 ^e	..	..	1 115	..	..
Singapore ^g	23 726	28 251	..	..	..	..
Slovenia	1 289	1 761	1 735	..	..	..
Sweden	43 489 ^b	..	..	71 044 ^e	..	..
United States ^b	475 062	511 474	539 869	697 778	824 336	882 099

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b Data refer to majority-owned affiliates only.

^c 2001.

^d 2000.

^e 2002.

^f 1998.

^g Data refer only to the manufacturing sector.

Annex table B.14. Profits of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005

(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
China ^b	33 556	41 741	..	..	..	..
Finland	2 439 ^e	..	..	..	..	..
France ^{b,c}	18 670 ^f	..	..	..	..	..
India ^b	3 195	3 951	5 069	..	..	..
India ^d	2 146	2 672	3 511	..	..	..
Israel ^b	1 401	..	..	1 652	..	..
Japan ^b	14 601	15 282	10 644	40 273	56 522	87 113
Japan ^d	4 290 ^g	7 541	18 222	27 502	39 055	62 470
Macao, China	494	899	1 408	- 5	- 8	35
Paraguay	88 ^e	..	..	..	..	..
Poland ^c	2 004 ⁱ	..	..	..	..	..
Singapore ^l	8 462	12 194	..	..	..	..
Slovenia	272	473	369	..	..	..
Sweden	7 786 ^c	..	..	8 051 ^g	..	..
The FYR of Macedonia	5 ^h	..	..	..	..	..
United States ^b	37 752	94 834	110 835	359 655	496 964	549 750

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b Profits before taxes.

^c Data refer to majority-owned affiliates only.

^d Profits after taxes.

^e 2001.

^f 1998.

^g 2002.

^h 1999.

ⁱ 2000.

^j Data refer only to the manufacturing sector.

Annex table B.15. Exports of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005
(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Austria	28 633	31 652	33 078	23 724 ^{b,c}	..	..
China	240 341	338 606	444 209	..	..	..
Czech Republic	25 754	35 607	39 682	152	621	842
Finland	10 404 ^c	..	..	..	..	..
France	59 267 ^c	..	..	..	..	..
Hungary	21 042 ^d	..	..	..	..	..
India	3 102	3 798	4 906	..	..	..
Ireland ^b	61 049 ^d	100 301	..	..	..	..
Israel	8 355	..	..	14 609	..	..
Japan	50 891	50 011	44 090	443 795	573 642	686 099
Korea, Republic of	5 098 ^d	..	..	..	..	..
Poland ^b	23 565 ^d	..	..	..	..	..
Portugal ^b	7 598 ^e	..	..	402	..	..
Singapore ^f	50 346	58 464	..	..	..	..
Slovenia	4 987	6 674	7 229	..	..	..
Sweden	44 133 ^b	..	..	66 663 ^e	47 317 ^b	..
United States	156 202	166 561	180 782	918 979 ^{b,e}	..	..

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b Data refer to majority-owned affiliates only.

^c 2001.

^d 2000.

^e 2002.

^f Data refer only to the manufacturing sector.

Annex table B.16. Imports of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005
(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Australia ^b	..	..	..	49 771 ^c	..	..
Austria	32 932	33 309	35 004	16 945 ^d	..	..
China	231 914	324 557	387 513	..	..	..
Czech Republic	24 162	33 422	34 279	1 959	3 269	3 525
Finland	1 279 ^e	..	..	..	..	..
Hungary	24 552 ^f	..	..	..	..	..
India	4 080	5 694	7 384	..	..	..
Ireland ^b	12 328 ^f	26 154	..	..	..	..
Israel	4 640	..	..	6 900	..	..
Japan	46 187	719 546	60 246	540 692	719 546	61 782
Korea, Republic of	13 723 ^f	..	..	..	..	..
Poland ^b	12 278 ^f	..	..	..	..	..
Portugal ^b	8 918 ^c	..	..	883	..	..
Sweden	42 256 ^b	..	..	48 863 ^c	21 431 ^b	..
United States	368 170	409 777	467 595	215 300 ^f	..	..

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b Data refer to majority-owned affiliates only.

^c 2002.

^d 2001.

^e 1998.

^f 2000.

Annex table B.17. R&D expenditures of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005
(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
Finland	87.7 ^b	..	..	..	..	..
India	79.6	100.0	118.4	..	..	..
Japan	6 667.1	7 187.3	7 045.0	3 436.1	4 270.8	3 950.3
Poland ^c	48.1 ^d	..	..	..	..	..
Singapore ^e	884.7 ^f	..	..	..	..	..
Sweden	3 628.4 ^c	..	..	8 725.5 ^f	..	..
Switzerland	..	..	..	5 793.9 ^d	..	..
United Kingdom ^c	5 104.1 ^g	..	..	..	..	..
United States ^h	29 803.0	30 083.0	31 694.0	22 793.0	..	..

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

^b 2001.

^c Data refer to majority-owned affiliates only.

^d 2000.

^e Data refer only to the manufacturing sector.

^f 2002.

^g 1998.

^h Data refer to R&D performed by majority-owned affiliates.

Annex table B.18. Royalty receipts and payments of foreign affiliates in the host economy and of foreign affiliates of home-based TNCs, 2003–2005

(Millions of dollars)

Host/home economy	Foreign affiliates in the host economy			Foreign affiliates of home-based TNCs		
	2003 ^a	2004	2005	2003 ^a	2004	2005
(a) Royalty receipts						
Germany	1 245	1 480	2 716	1 019	1 064	1 065
United States	1 644 ^b	..	..	9 241 ^c	..	..
(b) Royalty payments						
Austria	569	640	688	..	..	..
Germany	1 696	1 981	3 676	1 647	2 075	2 281
India	104	155	213	..	..	..
Japan	1 200 ^d	1 671	1 728	7 819	..	..
Korea, Republic of	18 228 ^e	..	..	..	..	..
United States	7 738 ^b	..	..	35 845 ^c	..	..

Source: UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

^a Or latest year available between 1998 and 2002.

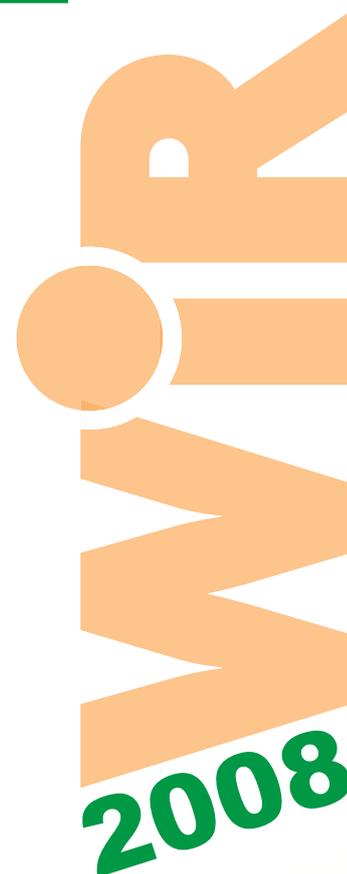
^b 1999.

^c Data refer to majority-owned affiliates only in 1999.

^d 2002

^e 1998.

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World Investment Report 2007. Transnational Corporations, Extractive Industries and Development. An Overview. 49 p. www.unctad.org/en/docs/wir2007overview_en.pdf.

World Investment Report 2006. FDI from Developing and Transition Economies: Implications for Development. An Overview. 340 p. Sales No. E.06.II.D.11. \$80. www.unctad.org/en/docs/wir2006_en.pdf.

World Investment Report 2006. FDI from Developing and Transition Economies: Implications for Development. An Overview. 50 p. www.unctad.org/en/docs/wir2006overview_en.pdf.

World Investment Report 2005. Transnational Corporations and the Internationalization of R&D. 334 p. Sales No. E.05.II.D.10. \$75. www.unctad.org/en/docs/wir2005_en.pdf.

World Investment Report 2005. Transnational Corporations and the Internationalization of R&D. An Overview. 50 p. www.unctad.org/en/docs/wir2005overview_en.pdf.

World Investment Report 2004. The Shift Towards Services. 468 p. Sales No. E.04.II.D.33. \$75.

World Investment Report 2004. The Shift Towards Services. Overview. 54 p. Document symbol: UNCTAD/WIR/2004 (Overview). Available free of charge.

World Investment Report 2003. FDI Policies for Development: National and International Perspectives. 303 p. Sales No. E.03.II.D.8.

World Investment Report 2003. FDI Policies for Development: National and International Perspectives. Overview. 42 p. Document symbol: UNCTAD/WIR/2003 (Overview). Available free of charge.

World Investment Report 2002: Transnational Corporations and Export Competitiveness (New York and Geneva, 2002). 350 p. Sales No. E.02.II.D.4.

World Investment Report 2002: Transnational Corporations and Export Competitiveness. Overview. 66 p. Document symbol: UNCTAD/WIR/2002 (Overview). Available free of charge.

World Investment Report 2001: Promoting Linkages. 354 p. Sales No. E.01.II.D.12.

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World Investment Report 1999: Foreign Direct Investment and the Challenge of Development. Overview. 75 p. Document symbol: UNCTAD/WIR/1999 (Overview). Available free of charge.

World Investment Report 1998: Trends and Determinants. 463 p. Sales No. E.98.II.D.5.

World Investment Report 1998: Trends and Determinants. Overview. 72 p. Document symbol: UNCTAD/WIR/1998 (Overview). Available free of charge.

World Investment Report 1997: Transnational Corporations, Market Structure and Competition Policy. 416 p. Sales No. E.97.II.D. 10.

World Investment Report 1997: Transnational Corporations, Market Structure and Competition Policy. Overview. 76 p. Document symbol: UNCTAD/ITE/IIT/5 (Overview). Available free of charge.

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World Investment Report 1994: Transnational Corporations, Employment and the Workplace. 482 p. Sales No. E.94.II.A.14.

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World Investment Report 1993: Transnational Corporations and Integrated International Production. An Executive Summary. 31 p. Document symbol: ST/CTC/159 (Executive Summary). Available free of charge.

World Investment Report 1992: Transnational Corporations as Engines of Growth. 356 p. Sales No. E.92.II.A.24.

World Investment Report 1992: Transnational Corporations as Engines of Growth: An Executive Summary. 26 p. Document symbol: ST/CTC/143 (Executive Summary). Available free of charge.

World Investment Report 1991: The Triad in Foreign Direct Investment (New York, 1991). 108 p. Sales No. E.91.II.A.12. \$25.

II. OTHER PUBLICATIONS (2006–2008)

A. Studies on Trends in FDI and the Activities of TNCs

World Investment Prospects Survey 2007-2009. 82 p. UNCTAD/WEB/ITE/IIA/2007/4.

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International Accounting and Reporting Issues: 2006 Review. 207 p. Sales No. E.07.II.D.5.

G. Data and Information Sources

UNCTAD, *World Investment Directory*.

Volume X: Africa (New York and Geneva, 2008). (UNCTAD/ITE/IIT/2007/5, CD ROM). Sales No. E.08.II.D.3. \$25.

H. Journals

Transnational Corporations. A refereed journal published three times a year. (formerly the *CTC Reporter*). Annual subscription (3 issues): \$45. Single issue: \$20.

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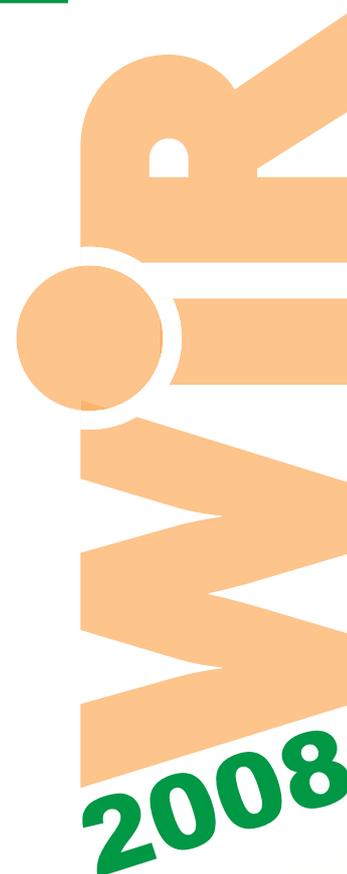
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Methodological Notes

A. General definitions

1. Transnational corporations

Transnational corporations (TNCs) are incorporated or unincorporated enterprises comprising parent enterprises and their foreign affiliates. A parent enterprise is defined as an enterprise that controls assets of other entities in countries other than its home country, usually by owning a certain equity capital stake. An equity capital stake of 10% or more of the ordinary shares or voting power for an incorporated enterprise, or its equivalent for an unincorporated enterprise, is normally considered as the threshold for the control of assets.¹ A foreign affiliate is an incorporated or unincorporated enterprise in which an investor, who is a resident in another economy, owns a stake that permits a lasting interest in the management of that enterprise (an equity stake of 10% for an incorporated enterprise, or its equivalent for an unincorporated enterprise). In *WIR*, subsidiary enterprises, associate enterprises and branches – defined below – are all referred to as foreign affiliates or affiliates.

- A subsidiary is an incorporated enterprise in the host country in which another entity directly owns more than a half of the shareholder's voting power, and has the right to appoint or remove a majority of the members of the administrative, management or supervisory body.
- An associate is an incorporated enterprise in the host country in which an investor owns a total of at least 10%, but not more than half, of the shareholders' voting power.
- A branch is a wholly or jointly owned unincorporated enterprise in the host country which is one of the following: (i) a permanent establishment or office of the foreign investor; (ii) an unincorporated partnership or joint venture between the foreign direct investor and one or more third parties; (iii) land, structures (except structures owned by government entities), and /or immovable equipment and objects directly owned by a foreign resident; or (iv) mobile equipment (such as ships, aircraft, gas- or oil-drilling rigs) operating within a country, other than that of the foreign investor, for at least one year.

2. Foreign direct investment

Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise) in an enterprise resident in an economy other than that of the foreign direct investor (FDI enterprise or affiliate enterprise or foreign affiliate).² FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. FDI may be undertaken by individuals as well as business entities.

Flows of FDI comprise capital provided (either directly or through other related enterprises) by a foreign direct investor to an FDI enterprise, or capital received from an FDI enterprise by a foreign direct investor. FDI has three components: equity capital, reinvested earnings and intra-company loans.

- Equity capital is the foreign direct investor's purchase of shares of an enterprise in a country other than its own.
- Reinvested earnings comprise the direct investor's share (in proportion to direct equity participation) of earnings not distributed as dividends by affiliates, or earnings not remitted to the direct investor. Such retained profits by affiliates are reinvested.
- Intra-company loans or intra-company debt transactions refer to short- or long-term borrowing and lending of funds between direct investors (parent enterprises) and affiliate enterprises.

FDI stock is the value of the share of their capital and reserves (including retained profits) attributable to the parent enterprise, plus the net indebtedness of affiliates to the parent enterprise. FDI flow and stock data used in *WIR* are not always defined as above, because these definitions are often not applicable to disaggregated FDI data. For example, in analysing geographical and industrial trends and patterns of FDI, data based on approvals of FDI may also be used because they allow a disaggregation at the country or industry level. Such cases are denoted accordingly.

3. Non-equity forms of investment

Foreign direct investors may also obtain an effective voice in the management of another business entity through means other than acquiring an equity stake. These are non-equity forms of investment, and they include, inter alia, subcontracting, management contracts, turnkey arrangements, franchising, licensing and product-sharing. Data on these forms of transnational corporate activity are usually not separately identified in the balance-of-payments statistics. These statistics, however, usually present data on royalties and licensing fees, defined as "receipts and payments of residents and non-residents for: (i) the authorized use of intangible non-produced, non-financial assets and proprietary rights such as trademarks, copyrights, patents, processes, techniques, designs, manufacturing rights, franchises, etc., and (ii) the use, through licensing agreements, of produced originals or prototypes, such as manuscripts, films, etc."³

B. Availability, limitations and estimates of FDI data presented in *WIR*

FDI data have a number of limitations. This section therefore spells out how UNCTAD collects and reports such data. These limitations need to be kept in mind also when dealing with the size of TNC activities and their impact.

1. FDI flows

Annex table B.1, as well as in most of the tables in the text, is on a net basis (capital transactions' credits less debits between direct investors and their foreign affiliates). Net decreases in assets (outward FDI) or net increases in liabilities (inward FDI) are recorded as credits (recorded with a positive sign in the balance of payments), while net increases in assets or net decreases in liabilities are recorded as debits (recorded with an opposite sign in the balance of payments). In the annex tables, as well as in the tables in the text, the opposite signs are reversed for practical purposes in the case of FDI *outflows*. Hence, FDI flows with a negative sign in *WIR* indicate that at least one of the three components of FDI (equity capital, reinvested earnings or intra-company loans) is negative and is not offset by

positive amounts of the other components. These are instances of reverse investment or disinvestment.

UNCTAD regularly collects published and unpublished national official FDI data flows directly from central banks, statistical offices or national authorities on an aggregated and disaggregated basis for its FDI/TNC database (www.unctad.org/fdistatistics). These data constitute the main source for the reported data on FDI. These data are further complemented by data obtained from: (i) other international organizations such as the International Monetary Fund (IMF), the World Bank and the Organisation for Economic Co-operation and Development (OECD); (ii) regional organizations such as the ASEAN Secretariat, European Bank for Reconstruction and Development (EBRD), Banque Centrale des Etas de l'Afrique de l'Ouest, Banque des Etats de l'Afrique Centrale and Eastern Caribbean Central Bank; and (iii) UNCTAD's own estimates.

For those economies for which data were not available from national official sources, or for those for which data were not available for the entire period of 1980-2007 covered in the *World Investment Report 2008 (WIR08)*, data from the IMF were obtained using the IMF's *International Financial Statistics* and *Balance of Payments Statistics Online*, July 2008. If the data were not available from the above IMF data source, data from the IMF's *Country Report*, under Article IV of the IMF's Articles of Agreements, were also used.

For those economies for which data were not available from national official sources and the IMF, or for those for which data were not available for the entire period of 1980-2007, data from the World Bank's *World Development Indicators Online* were used. This report covers data up to 2006.

Data from the EBRD's *Transition Report 2007* were utilized for those economies in the Commonwealth of Independent States for which data were not available from one of the above-mentioned sources.

Furthermore, data on the FDI outflows of the OECD, as presented in its publication, *Geographical Distribution of Financial Flows to Developing Countries*, and as obtained from its online databank, were used as a proxy for FDI inflows. As these OECD data are based on FDI outflows to developing economies from the member countries of the Development Assistance Committee (DAC) of OECD,⁴ inflows of FDI to developing economies may be underestimated.

Finally, in those economies for which data were not available from either of the above-mentioned sources, or only partial data (quarterly or monthly) were available, estimates were made by:

- a. annualizing the data, if they are only partially available (monthly or quarterly) from either national official sources or the IMF;
- b. using the mirror data of FDI of major economies as proxy;
- c. using national and secondary information sources;
- d. using data on cross-border mergers and acquisitions (M&As) and their growth rates; and
- e. using specific factors.

* A more detailed methodology for each economy on data collection, reporting and estimates for *WIR08* is provided in the WIR home page, www.unctad.org/wir. Longer time-series data are also available on its site or FDI statistics home page, www.unctad.org/fdistatistics.

2. FDI stocks

Annex table B.2, as well as some tables in the text, presents data on FDI stocks at book value or historical cost, reflecting prices at the time when the investment was made.

As in the case of flow data, UNCTAD regularly collects published and unpublished national official FDI stock data as well directly from central banks, statistical offices or national authorities on an aggregated and disaggregated basis for its FDI/TNC database (www.unctad.org/fdistatistics). These data constitute the main source for the reported data on FDI. These data are further complemented by data obtained from (i) other international organizations such as the IMF; (ii) regional organizations such as the ASEAN Secretariat; and (iii) UNCTAD's own estimates.

For those economies for which data were not available from national official sources, or for those for which data were not available for the entire period of 1980-2007 covered in the *WIR08*, data from the IMF were obtained using the IMF's *Balance of Payments Statistics Online*, July 2008. Finally, in those economies for which data were not available from either of the above-mentioned sources, estimates were made by either adding up FDI flows over a period of time, or adding or subtracting flows to an FDI stock that had been obtained for a particular year from national official sources, or the IMF data series on assets and liabilities of direct investment, or by using the mirror data of FDI stock of major economies as proxy.

* A more detailed methodology for each economy on data collection, reporting and estimates for *WIR08* is provided in the WIR home page, www.unctad.org/wir. Longer time-series data are also available on its site or the FDI statistics home page, www.unctad.org/fdistatistics.

The following section provides details on sources and methodology of data on FDI, as well as on the estimation methods used for these data, for each of 204 economies used in the Report or contained in the UNCTAD FDI/TNC database (www.unctad.org/fdistatistics).

● **Afghanistan**

- National institution reporting FDI:
 - Da Afghanistan Bank
- Data source used in the report:
 - Inflows
OECD for 1980-1982, 1987, 1991-1994, and 1996-2001, estimates for 1995 and the national institution mentioned above for 2002-2007.
Note: Data from 2002 to 2004 are on fiscal year basis.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Albania**

- National institution reporting FDI:
 - Bank of Albania
- Reporting system used:
 - Surveys.
- Data source used in the report:
 - Flows

The national institution mentioned above.

- Inward stock

Data prior to 2000 are estimated by accumulating inflows since 1992. Data for 2003-2007 are based on the national institution.

- Outward stock

The national institution.

- Availability of all FDI flows and stock components:
 - ❖ Inflows and inward stock for 2001-2007.

- **Algeria**

- National institution reporting FDI:
 - Banque d'Algérie
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
Estimated by accumulating flows since 1970.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Angola**

- National institution reporting FDI:
 - Bank of Angola
- Data source used in the report:
 - Inflows
OECD for 1980-1984 and the national institution mentioned above thereafter.
 - Outflows
IMF for 1990, proxy for 1992-2001 and the national institution for 2002-2007.
Note: Proxy is based on investments reported by the following economies:

1992	France.
1993-1995	United States.
1996-2000	France, Portugal and the United States.
2001	Brazil, France, Portugal and the United States.
 - Inward stock
Data prior to 2002 are estimated by accumulating inflows since 1970. 2003-2007 are based on the national institution.
 - Outward stock
Estimated by accumulating outflows since 1986.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1999-2007.

- **Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia, and Saint Vincent and the Grenadines**

- National institution reporting FDI:
 - East Caribbean Central Bank (ECCB)
- Reporting system used:
 - Surveys, administrative sources and interviews with some of the foreign direct investment enterprises.
- Valuation system used:
 - Current price.
- Data source used in the report:
 - Inflows
 1. **Anguilla:** The national institution mentioned above.

2. **Antigua and Barbuda:** IMF for 1980-1989 and the national institution thereafter.
3. **Dominica:** OECD for 1981, IMF for 1982-1989 and the national institution thereafter.
4. **Grenada:** IMF for 1982-1989 and the national institution thereafter.
5. **Montserrat:** IMF for 1986-1989 and the national institution thereafter.
6. **Saint Kitts and Nevis:** IMF for 1980-1989 and the national institution thereafter.
7. **Saint Lucia:** IMF for 1980-1989 and the national institution thereafter.
8. **Saint Vincent and the Grenadines:** IMF for 1980-1989 and the national institution thereafter.

▪ Outflows

1. **Anguilla:** Proxy based on investments reported by the United States for 1997-1998 and by Cyprus for 2002.
2. **Antigua and Barbuda:** Proxy for 1992-2005.
Note: Proxy is based on investments reported by the following economies:
 1992-1994 and 1996 Belgium and Luxembourg and the United States.
 1995 and 1997-1998 United States.
 1999 France and the United States.
 2000 France.
 2001-2002 Brazil and France.
 2003 and 2005 Brazil.
 2004 Brazil and Portugal.
3. **Dominica:** Not available.
4. **Grenada:** Not available.
5. **Montserrat:** Not available.
6. **Saint Kitts and Nevis:** The national institution.
7. **Saint Lucia:** Not available.
8. **Saint Vincent and the Grenadines:** Not available.

▪ Inward stock

1. **Anguilla:** Estimated by accumulating inflows since 1990.
2. **Antigua and Barbuda:** Estimated by accumulating inflows since 1977.
3. **Dominica:** Estimated by accumulating inflows since 1977.
4. **Grenada:** Estimated by accumulating inflows since 1977.
5. **Montserrat:** Estimated by accumulating inflows since 1986.
6. **Saint Kitts and Nevis:** Estimated by accumulating inflows since 1980.
7. **Saint Lucia:** Estimated by accumulating inflows since 1976.
8. **Saint Vincent and the Grenadines:** Estimated by accumulating inflows since 1978.

▪ Outward stock

Not available.

- Availability of all FDI flows and stock components:

1. **Anguilla:** Inflows from 1990.
2. **Antigua and Barbuda:** Inflows from 1986.
3. **Dominica:** Inflows from 1986.
4. **Grenada:** Inflows for 1986, 1988 and 1990-2007.
5. **Montserrat:** Inflows from 1990.
6. **Saint Kitts and Nevis:** Inflows from 1986.
7. **Saint Lucia:** Inflows from 1988.
8. **Saint Vincent and the Grenadines:** Inflows for 1988 and 1990-2007.

● **Argentina**

- National institution reporting FDI:

- Ministerio de Economía de la Nación, Instituto Nacional de Estadística y Censos, Dirección Nacional de Cuentas Internacionales
- Data source used in the report:
 - Inflows
IMF for 1980-1991 and the national institution mentioned above thereafter.
 - Outflows
IMF for 1980-1983, proxy for 1984-1991 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:

1984	Brazil, Chile and the United States.
1985	Belgium and Luxembourg, Brazil and the United States.
1986	Belgium and Luxembourg, Bolivia, Brazil, Ecuador, France, the Netherlands and the United States.
1987	Brazil, Chile, Ecuador, France, Germany, the Netherlands, the United States and the Bolivarian Republic of Venezuela.
1988	Brazil, Chile, France, Germany, the Netherlands, the United States and the Bolivarian Republic of Venezuela.
1989	Belgium and Luxembourg, Bolivia, Brazil, Chile, Ecuador, France, Germany, the Netherlands, Peru, the United States and the Bolivarian Republic of Venezuela.
1990	Belgium and Luxembourg, Bolivia, Brazil, Chile, France, the Netherlands, Paraguay, Peru, the United States and the Bolivarian Republic of Venezuela.
1991	Belgium and Luxembourg, Brazil, Chile, Ecuador, France, Germany, the Netherlands, Paraguay, the United States and the Bolivarian Republic of Venezuela.
 - Stocks
Data prior to 1991 are estimated by subtracting flows from the stock of 1991. 1991-2007 are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1992.
 - ❖ Inward stock from 1991.
 - ❖ Not available for outward stock.

● **Armenia**

- National institution reporting FDI:
 - National Statistical Service
- Data source used in the report:
 - Inflows
The national institution mentioned above.
 - Outflows
Proxy for 1997 and 1999-2002 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:

1997	France.
1999	Bulgaria and Kazakhstan.
2000	Kazakhstan.
2001	Bulgaria.
2002	Bulgaria and Cyprus.
 - Inward stock
Data prior to 1997 are estimated by subtracting inflows from the stock of 1997. 1997-2007 data are based on the national institution.
 - Outward stock
Data prior to 2002 are estimated by accumulating outflows since 1997. 2002-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:

- ❖ Inflows and inward stock from 1997.

● Aruba

- National institution reporting FDI:
 - Centrale Bank van Aruba
- Data source used in the report:
 - Inflows
Proxy for 1987 based on investments reported by the Netherlands, OECD for 1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy for 1988-1991 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:
1988 Netherlands.
1989 Belgium and Luxembourg.
1990-1991 Belgium and Luxembourg and the Netherlands.
 - Inward stock
Data prior to 1999 are estimated by accumulating inflows since 1987. 1999-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2006.
 - Outward stock
Estimated by accumulating outflows since 1988.
- Availability of all FDI flows and stock components:
 - ❖ Inward stock for 1999-2006.

● Australia

- National institution reporting FDI:
 - Australian Bureau of Statistics
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Current price.
- Data source used in the report:
The national institution mentioned above. Stocks for 1980-1987 are on a fiscal year basis (as at June).
- Availability of all FDI flows and stock components:
 - ❖ All.

● Austria

- National institution reporting FDI:
 - Austrian National Bank
- Data source used in the report:
 - Flows
The national institution mentioned above thereafter.
 - Stocks
The national institution. 2006 and 2007 data are preliminary.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1997.
 - ❖ Stocks from 1980.

● Azerbaijan

- National institution reporting FDI:
 - National Bank of Azerbaijan
- Data source used in the report:
 - Inflows
EBRD for 1993 and the national institution mentioned above thereafter.

- Outflows

Proxy based on investments reported by Germany for 1996 and France and the United States for 2001, IMF for 1997-1998 and the national institution for 2000 and 2002-2007.

- Inward stock

The national institution.

- Outward stock

Data prior to 2003 are estimated by accumulating outflows since 1996. 2003-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 2006-2007.
- ❖ Inward stock for 1996-2005.
- ❖ Outward stock for 2007.

- **Bahamas**

- National institution reporting FDI:

- Central Bank of the Bahamas

- Reporting system used:

- International Transaction Reporting System (ITRS).

- Valuation system used:

- Current Price.

- Data source used in the report:

- Inflows

IMF for 1980-1988 and the national institution mentioned above thereafter.

Notes: - Reinvested earnings are currently included under Other Capital.

- After 1997, data were revised to include loans and repayments of loans between direct investors and their direct investment enterprises.

- Outflows

Proxy for 1980-1988 and the national institution for 1989-1999.

Note: Proxy is based on investments reported by the following economies:

1980-1984	United States.
1985	Belgium and Luxembourg and the United States.
1986-1987	Belgium and Luxembourg, Ecuador and the United States.
1988	Belgium and Luxembourg, France and the United States.

- Inward stock

Estimated by accumulating inflows since 1970.

- Outward stock

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Bahrain**

- National institution reporting FDI:

- Central Bank of Bahrain

- Reporting system used:

- Surveys.

Note: For the first time in 2004, after technical cooperation was given by the Economic and Social Commission for Western Asia (ESCWA) and UNCTAD, a survey on inward FDI was undertaken. Stock data from this survey were used.

- Data source used in the report:

- Inflows

IMF for 1980 and 1982-1989, OECD for 1981 and the national institution mentioned above for 1990-2007.

Note: Flows cover only the financial sector.

- Outflows

Proxy for 1982, 1985-1989 and the national institution thereafter.

Note: Proxy is based on investments reported by the following and economies:

1982 United States.

1985-1987 Belgium and Luxembourg and the United States.

1988-1989 Belgium and Luxembourg, Brazil, Thailand and the United States.

▪ Stocks

Data prior to 1989 are estimated by subtracting flows from the stock of 1989. 1989 data are based on the IMF. 1990-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

❖ Not available.

● **Bangladesh**

- National institution reporting FDI:

○ Bangladesh Bank

- Reporting system used:

○ Surveys.

- Valuation system used:

○ Book value.

- Data source used in the report:

▪ Inflows

OECD for 1980-1982 and 1985, IMF for 1983-1984 and 1986-1994 and the national institution mentioned above thereafter.

▪ Outflows

The national institution.

▪ Stocks

Data prior to 1997 are estimated by subtracting flows from the stock of 1997. 1997-2007 are based on the national institution.

- Availability of all FDI flows and stock components:

❖ Inward flows and stock from 1997.

❖ Outward flows and stock from 2000.

● **Barbados**

- National institution reporting FDI:

○ Central Bank of Barbados

- Reporting system used:

○ Surveys.

- Valuation system used:

○ Book value.

- Data source used in the report:

▪ Flows

The national institution mentioned above. 2007 data is estimated.

▪ Stocks

1980-2002 are based on the national institution. 2003-2007 are estimated by adding flows to the 2002 stock.

- Availability of all FDI flows and stock components:

❖ Flows for 1980-2006.

❖ Not available for stocks.

● **Belarus**

- National institution reporting FDI:

○ National Bank of the Republic of Belarus (NNB)

- Reporting system used:

○ Surveys and Bilateral sources. Inflows are further complemented by data from the NBB's Banking Supervision department report.

- Valuation system used:
 - o Book value.
- Data source used in the report:
 - Inflows
The national institution mentioned above.
 - Outflows
Proxy for 1993-1996 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:

1993	China and Germany.
1994	China and France
1995	China.
1996	Austria, Germany and Poland.
 - Stocks
Data prior to 1996 are estimated by subtracting flows from the stock of 1996. 1996-2007 are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 2000.
 - ❖ Outflows for 2007.
 - ❖ Inward stock from 2002.
 - ❖ Outward stock from 2001.

● **Belgium**

- National institution reporting FDI:
 - o National Bank of Belgium
- Reporting system used:
 - o Flows: data on equity and other capital are based ITRS whereas data on reinvested earnings are based on surveys.
 - o Stock: data are accumulated flows of equity and other capital based on ITRS whereas data on reinvested earnings are based on surveys.
- Valuation system used:
 - o Current price.
- Data source used in the report:

The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ All.

● **Belgium and Luxembourg**

- National institution reporting FDI:
 - o National Bank of Belgium

Note: Up to 2001, the Belgium National Bank reported FDI data for the Belgium and Luxembourg Economic Union. As of 2002, this economic union is no longer in effect. Consequently, FDI data are reported separately by the respective national authorities. Therefore, data for 2002 onwards are not comparable to the combined flows as reported in previous years because of different methodologies.
- Data source used in the report:
 - Flows
IMF for 1980-1998 and the national institution mentioned above for 1999-2001.
 - Inward stock
The national institution mentioned for 1980 and the IMF for 1981-2001.
 - Outward stock
IMF for 1980-1998 and the national institution mentioned above for 1999-2001.
- Availability of all FDI flows and stock components:
 - ❖ Only for flows for 1999-2001.

- **Belize**

- National institution reporting FDI:
 - Central Bank of Belize
- Data source used in the report:
 - Inflows
OECD for 1981 and the national institution mentioned above for 1984-2007.
 - Outflows
The national institution.
 - Inward stock
Data are estimated by accumulating inflows since 1970.
 - Outward stock
Data are estimated by accumulating outflows since 1984.
- Availability of all FDI flows and stock components:
 - ❖ Only inflows for 1984-1985, 1994-1995 and 1997-2007.

- **Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo**

- National institution reporting FDI:
 - Banque Centrale de l'Afrique de l'Ouest (BCEAO)
- Data source used in the report:
 - Inflows
 1. **Benin:** IMF for 1980-1984 and 1988-1989, OECD for 1985-1987, the national institution mentioned above for 1990-2006 and estimate for 2007.
 2. **Burkina Faso:** IMF for 1980-1989, OECD for 1990-1991, the national institution for 1992-2006 and estimate for 2007.
 3. **Côte d'Ivoire:** IMF for 1980-1989 and 2007 and the national institution for 1990-2006.
 4. **Guinea-Bissau:** OECD for 1984-1992 and 1994-1996, the World Bank for 1993, the national institution for 1997-2006 and estimate for 2007.
 5. **Mali:** IMF for 1980-1992 and 1998, the national institution for 1993-1997 and 1999-2006, and estimate for 2007.
 6. **Niger:** IMF for 1980-1994, the national institution for 1995-2006 and estimate for 2007.
 7. **Senegal:** IMF for 1980-1984, the national institution for 1985-2006 and estimate for 2007.
 8. **Togo:** IMF for 1980-1989, the national institution for 1990-2006 and estimate for 2007.
 - Outflows
 1. **Benin:** IMF 1981-1984 and 1996-1998, proxy for 1988-1994, the national institution for 1999-2006 and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:
1988-1989 and 1991-1993 France.
1990 and 1994 Belgium and Luxembourg and France.
 2. **Burkina Faso:** IMF 1980-1986, proxy for 1987-1990, estimate for 1991-1992 and 2007 and the national institution for 1993-2006.
Note: Proxy is based on investments reported by the following economies:
1987 Belgium and Luxembourg.
1988-1990 France.
 3. **Côte d'Ivoire:** Proxy for 1986-1989, 1994-1995 and 1997-1998, IMF for 1996, the national institution for 1999 and estimates for 2000-2007.
Note: Proxy is based on investments reported by the following economies:

1986-1987	Belgium and Luxembourg.
1988-1989 and 1994	Belgium and Luxembourg and France.
1995	France and the United States
1997	France and Germany
1998	France.

4. **Guinea-Bissau:** Proxy based on investments reported by France for 1996, the national institution for 2001-2006 and estimate for 2007.
5. **Mali:** Proxy for 1987-1992, IMF for 1996-1998, the national institution for 1999-2006 and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:
1987-1989 Belgium and Luxembourg.
1990 France.
1991-1992 Belgium and Luxembourg and France.
6. **Niger:** IMF for 1980-1998, the national institution for 1999-2006 and estimate for 2007.
7. **Senegal:** IMF for 1980-1989, the national institution for 1990-2006 and estimate for 2007.
8. **Togo:** IMF for 1995-1998, the national institution for 1999-2006 and estimate for 2007.

■ Inward stock

1. **Benin:** Data prior to 1996 are estimated by subtracting inflows from the stock of 1996. 1996-1998 data are based on the IMF. 1999-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
2. **Burkina Faso:** Data prior to 1999 are estimated by accumulating inflows since 1970. 1999-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
3. **Côte d'Ivoire:** Data prior to 1998 are estimated by accumulating inflows since 1970. 1998 data are based on the IMF. 1999-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
4. **Guinea-Bissau:** Estimated by accumulating inflows since 1975.
5. **Mali:** Data prior to 1997 are estimated by subtracting inflows from the 1997 stock. 1997-1998 are based on the IMF. 1999-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
6. **Niger:** Data prior to 1999 are estimated by accumulating inflows since 1970. 1999-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
7. **Senegal:** Data prior to 1999 are estimated by accumulating inflows since 1970. 1999-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
8. **Togo:** Estimated by accumulating inflows since 1970.

■ Outward stock

1. **Benin:** Data prior to 1999 are estimated by accumulating outflows since 1979. . 1999-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the 2006 stock.
2. **Burkina Faso:** Data prior to 1999 are estimated by accumulating outflows since 1974. 1999-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the 2006 stock.
3. **Côte d'Ivoire:** Data prior to 1999 are estimated by accumulating outflows since 1986. 1999-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the 2006 stock.

4. **Guinea-Bissau:** 2002-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the 2006 stock.
 5. **Mali:** Estimated by accumulating outflows since 1975.
 6. **Niger:** Estimated by accumulating outflows since 1974.
 7. **Senegal:** Estimated by accumulating outflows since 1974.
 8. **Togo:** Estimated by accumulating outflows since 1995.
- Availability of all FDI flows and stock components:
1. **Benin:**
 - ❖ Inflows for 1989-1995 and 1997-2006.
 - ❖ Outflows for 1996 and 1999-2006.
 - ❖ Inward stock for 1996-2006.
 - ❖ Outward stock for 1999-2006.
 2. **Burkina Faso:**
 - ❖ Inflows for 1980-1981 and 2000-2006.
 - ❖ Outflows for 2006.
 - ❖ Stocks for 1999-2006.
 3. **Côte d'Ivoire:**
 - ❖ Inflows for 1980-1989, 1993-1998 and 2000-2006.
 - ❖ Outward stock for 1999-2006.
 4. **Guinea-Bissau:**
 - ❖ Inflows for 2002-2006.
 - ❖ Stocks for 2002-2005.
 5. **Mali:**
 - ❖ Inflows for 1996-2006.
 - ❖ Outflows for 2001.
 - ❖ Stocks for 1999-2006.
 6. **Niger:**
 - ❖ Inflows for 1980, 1982-1985 and 1999-2006.
 - ❖ Outflows for 1999-2006.
 - ❖ Stocks for 1999-2005.
 7. **Senegal:**
 - ❖ Inflows for 1980-2006.
 - ❖ Outflows for 1982-1985 and 1999-2006.
 - ❖ Outflows for 1982 and 1996-2006.
 - ❖ Stocks for 1999-2006.
 8. **Togo:**
 - ❖ Inflows for 1980-1991 and 1993-2006.
 - ❖ Outflows for 1996-2006.
 - ❖ Stocks for 1999-2006.

● **Bermuda**

- National institution reporting FDI:
 - Bermuda Government Department of Statistics
- Reporting system used:
 - ITRS.
- Valuation system used:
 - Current prices.
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
Estimated by accumulating flows since 1997.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Bhutan**

- National institution reporting FDI:
 - Royal Monetary Authority of Bhutan
- Data source used in the report:
 - Inflows
OECD for 1990-1991, 1995-1997, and the national institution mentioned above thereafter. *Note:* Data from the national institution are on fiscal year basis.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1974.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Bolivia**

- National institution reporting FDI:
 - Banco Central de Bolivia
- Reporting system used:
 - Surveys and central bank's estimates.
 - Note:* * Inflows: since 2000 data on inflows are net values because the FDI survey has started the collection of information on disinvestment (capital withdrawal, equity sale to local investors and amortisation of intra company loans).
 - * Outflows are based on central bank's estimates.
 - * Since December 2003, data on Stocks reflect the outcomes of the amplified Survey on Foreign Private Capital (flows and balances of foreign assets and liabilities) done for the period December 2003 - September 2004. For the previous periods, Stocks are based on the Central Bank's estimates. The series 1997-2002 is under revision, in view of the outcomes of the mentioned survey. Other capital for inward stock includes assets other than equity capital. Its values are \$175 million, \$205.9 million, and \$205.9, for 2003, 2004 and 2005, respectively.
- Valuation system used:
 - Book value.
- Data source used in the report:
 - Flows and Inward stock
The national institution mentioned above.
 - Outward stock
Data prior to 1997 are estimated by subtracting outflows from the stock of 1997. 1997-2007 data are based on the national institution
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1987.
 - ❖ Inward stock from 1997.
 - ❖ Outward stock from 2003.

- **Bosnia and Herzegovina**

- National institution reporting FDI:
 - Central Bank of Bosnia and Herzegovina
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock

Data prior to 2003 are estimated by subtracting inflows from the stock of 2003. 2003-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2006.

- Outward stock

2004-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the stock of 2006.

- Availability of all FDI flows and stock components:

- ❖ Flows from 2004.
- ❖ Inward stock for 2003-2006.
- ❖ Outward stock for 2006-2006.

- **Botswana**

- National institution reporting FDI:

- Bank of Botswana

- Data source used in the report:

- Flows

The national institution mentioned above.

- FDI stock

Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2006 data are based on the national institution. 2007 data are estimated by adding inflows to the stock of 2006.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1980-1987 and 1990-2007.
- ❖ Outflows from 1993.
- ❖ Inward stock for 1996-2006.
- ❖ Outward stock for 1997-2006.

- **Brazil**

- National institution reporting FDI:

- Banco do Brasil

- Data source used in the report:

- Flows

The national institution mentioned above.

- Inward stock

The national institution.

- Outward stock

Data prior to 2001 are estimated by subtracting outflows from the stock of 2001. 2001-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1982-1998.
- ❖ Inward stock from 1992.
- ❖ Outward stock from 2001.

- **British Virgin Islands**

- Data source used in the report:

- Inflows

OECD for 1980, 1982-1997, OECD and investment reported by Hong Kong (China) for 1998-2004, and proxy for 2005-2006.

Note: Proxy is based on investments reported by the following economies:

2005-2006 China, Croatia, Czech Republic, Hong Kong (China), Israel, Japan, Macao (China) and the United States.

2007 Czech Republic and the United States.

- Outflows

Proxy.

Note: Proxy is based on investments reported by the following economies:

1988-1991	France, Thailand and the United States.
1992	Brazil, France, Thailand, United States and the Bolivarian Republic of Venezuela.
1993 and	Belgium and Luxembourg, Brazil, France, Thailand, the United States and the Bolivarian Republic of Venezuela.
1994	Belgium and Luxembourg, Brazil, France, Germany, Kazakhstan and the United States.
1995	Belgium and Luxembourg, Estonia, France, Germany, Kazakhstan and the United States.
1996	Belgium and Luxembourg, Bulgaria, Estonia, France, Germany, Kazakhstan Portugal and the United States.
1997	Belgium and Luxembourg, Estonia, France, Germany, Kazakhstan, Malaysia, Portugal and the United States.
1998	Belgium and Luxembourg, Croatia, Estonia, Germany, Hong Kong (China), Kazakhstan, Portugal and the United States.
1999	Belgium and Luxembourg, Croatia, Czech Republic, Estonia, France, Hong Kong (China), Kazakhstan, Lithuania, New Zealand, Philippines and the United States.
2000	Belgium and Luxembourg, Bulgaria, Croatia, Czech Republic, Estonia, France, Hong Kong (China), Kazakhstan, Latvia, Lithuania, New Zealand, Portugal, Sweden and the United States.
2001	Belgium and Luxembourg, Brazil, Bulgaria, Croatia, Czech Republic, Estonia, France, Germany, Hong Kong (China), Kazakhstan, Latvia, Lithuania, Philippines, Portugal, Russian Federation and the United States.
2002	Brazil, Bulgaria, Croatia, Cyprus, El Salvador, Estonia, France, Germany, Hong Kong (China), Iceland, Kazakhstan, Latvia, Lithuania, Portugal, Russian Federation and the United States.
2003	Australia, Belgium, Brazil, Bulgaria, Croatia, Cyprus, El Salvador, Estonia, France, Georgia, Germany, Hong Kong (China), Iceland, Kazakhstan, Latvia, Lithuania, Portugal, Romania and the United States.
2004	Australia, Brazil, Bulgaria, Croatia, Cyprus, Czech Republic, El Salvador, Estonia, Georgia, Hong Kong (China), Iceland, Kazakhstan, Latvia, Lithuania, Portugal, Romania, Sweden and the United States.
2005	Australia, Brazil, Bulgaria, Czech Republic, El Salvador, Estonia, France, Germany, Hong Kong (China), Japan, Kazakhstan, Sweden and United States.
2006	Brazil, Bulgaria, Czech Republic, El Salvador, Estonia, France, Germany, Hong Kong (China), Japan, Kazakhstan and the United States.
2007	Bulgaria, China, Czech Republic, El Salvador, Estonia and the United States

- Inward stock

Estimated by accumulating inflows since 1976.

- Outward stock

Estimated by accumulating outflows since 1988.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Brunei Darussalam**

- National institution reporting FDI:

- Department of Economic Planning and Development, Prime Minister's Office

- Data source used in the report:
 - Inflows
OECD for 1980, 1982-1988 and 1994, estimate for 1981, proxy for 1989-1993, ASEAN for 1995-1996 and the national institution mentioned above for 1997-2007.
Note: Proxy is based on investments reported by the following economies:
1989-1990 and 1992-1993 United States.
1991 Malaysia and the United States.
 - Outflows
Proxy for 1991-2003, IMF for 2004 and 2006 and estimates for 2005 and 2007.
Note: Proxy is based on investments reported by the following economies:
1991-1995 France, Malaysia and Thailand.
1996 France, Indonesia and Malaysia.
1997-1998 Indonesia, Malaysia and the United States.
1999 Malaysia and Singapore.
2000-2001 Malaysia, Singapore and the United States.
2002-2003 France, Malaysia and the United States.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Estimated by accumulating outflows since 1991.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1999.

● Bulgaria

- National institution reporting FDI:
 - Bulgarian National Bank
- Reporting system used:
 - Data are partially based on direct reporting.
- Data source used in the report:
 - Inflows
The national institution mentioned above.
 - Outflows
Proxy for 1987-1994 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:
1987-1988 Germany.
1989-1990 Belgium and Luxembourg and Germany.
1991-1992 Belgium and Luxembourg, France and Germany.
1993 Austria, Belgium and Luxembourg, China, France and Germany.
1994 Austria, Belgium and Luxembourg, China and Germany.
 - FDI stocks
Data prior to 1998 are estimated by subtracting flows from the stock of 1998. 1998-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1996.
 - ❖ Outflows from 1997.
 - ❖ Stocks from 1999.

● Burundi

- National institution reporting FDI:
 - Bank of Burundi
- Data source used in the report:
 - Inflows
OECD for 1980-1984, the national institution mentioned above for 1985-2006 and estimate for 2007.

- Outflows
Proxy based on investments reported by Belgium and Luxembourg for 1985-1988, IMF for 1989 and the national institution for 1990-2003.
- Inward stock
Estimated by accumulating inflows since 1970.
- Outward stock
Estimated by accumulating outflows since 1986.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Cambodia**

- National institution reporting FDI:
 - National Bank of Cambodia
- Data source used in the report:
 - Inflows
OECD 1980 and the national institution mentioned above for 1992-2007.
 - Outflows
The national institution.
 - Inward stock
Data prior to 1994 are estimated by subtracting inflows from the stock of 1994. 1994-2007 data are based on the national institution.
 - Outward stock
Data prior to 1997 are estimated by subtracting outflows from the stock of 1997. 1997-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inward FDI from 1997.

● **Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon**

- National institution reporting FDI:
 - Banque Centrale des Etats de l'Afrique Centrale (BEAC)
- Data source used in the report:
 - Inflows
 1. **Cameroon:** IMF for 1980-2002 and the national institution mentioned above thereafter.
 2. **Central African:** IMF for 1980-1994 and the national institution thereafter.
 3. **Chad:** IMF on the basis of net direct investment for 1980-1983, IMF for 1984-1989 and 1991-1994, World Bank for 1990 and the national institution for 1995-2007.
 4. **Congo:** The national institution for 1980-1993 and 1995-2007 and OECD for 1994.
 5. **Equatorial Guinea:** OECD for 1981-1988 and the national institution thereafter.
 6. **Gabon:** IMF for 1980-1994 and the national institution thereafter.
 - Outflows
 1. **Cameroon:** IMF for 1980-2002 and the national institution mentioned above thereafter.
 2. **Central African Republic:** IMF for 1982-1994 and the national institution thereafter.
 3. **Chad:** IMF for 1985-1983, 1985-1989 and 1991-1994, proxy based on investments reported by Belgium and Luxembourg for 1990 and the national institution for 1995-2003.

4. **Congo:** Proxy based on investments reported by Belgium and Luxembourg and France for 1988-1994, IMF for 1995-2004 and estimates for 2005-2007.
 5. **Equatorial Guinea** IMF for 1989-1991 and the national institution thereafter.
 6. **Gabon:** IMF for 1980-1993, proxy based on investments reported by France for 1994 and by France and the United States for 2006, the national institution for 1995-2005, and estimate for 2007.
- Inward stock
 1. **Cameroon:** Estimated by accumulating inflows since 1970.
 2. **Central African Republic:** Estimated by accumulating inflows since 1970.
 3. **Chad:** Estimated by accumulating inflows since 1970.
 4. **Congo:** Estimated by accumulating inflows since 1970.
 5. **Equatorial Guinea:** Estimated by accumulating inflows since 1982.
 6. **Gabon:** Estimated by accumulating inflows since 1970.
 - Outward stock
 1. **Cameroon:** Estimated by accumulating outflows since 1973.
 2. **Central African Republic:** Estimated by accumulating outflows since 1975.
 3. **Chad:** Estimated by accumulating outflows since 1979.
 4. **Congo:** No data available.
 5. **Equatorial Guinea:** Estimated by accumulating outflows since 1989.
 6. **Gabon:** Estimated by accumulating outflows since 1975.
- Availability of all FDI flows and stock components:
1. **Cameroon:**
 - ❖ Inflows for 1980-2004.
 - ❖ Outflows for 1989-2004.
 2. **Central African Republic:**
 - ❖ Inflows for 1982, 1984, 1989-1991 and 1995-2002.
 - ❖ Outflows for 1995-1997.
 3. **Chad:**
 - ❖ Inflows for 1992 and 1995-2003.
 4. **Congo:**
 - ❖ Inflows for 1980-1985, 1995-2001 and 2003-2004.
 - ❖ Outflows for 1995.
 5. **Equatorial Guinea:**
 - ❖ Inflows for 1995-2001.
 6. **Gabon:**
 - ❖ Inflows for 1980-2005.
 - ❖ Outflows for 1995-1999 and 2001-2004.
- **Canada**
 - National institution reporting FDI:
 - Statistics Canada
 - Data source used in the report:
 - The national institution mentioned above.
 - Availability of all FDI flows and stock components:
 - ❖ Inflows from 1980.
 - ❖ Outflows from 1987.
 - ❖ Stocks from 1983.
 - **Cape Verde**
 - National institution reporting FDI:
 - Banco de Cabo Verde
 - Data source used in the report:

- Inflows
The national institution mentioned.
- Outflows
IMF for 1999-2001 and 2003 and the national institution for 1988-1997 and 2007.
- Inward stock
Estimated by accumulating inflows since 1986.
- Outward stock
Estimated by accumulating outflows since 1985.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1998 and 2000-2007.
 - ❖ Inward stock from 2004.
- **Cayman Islands**
- Data source used in the report:
 - Inflows
OECD for 1980-2004, proxy based on investments reported by Chile, China, Czech Republic, Denmark, France, Germany, Hong Kong (China), Japan and Malaysia for 2005-2006 and estimate for 2007.
 - Outflows
Proxy.

Note: Proxy is based on investments reported by the following economies:

1980	Brazil and the Bolivarian Republic of Venezuela.
1981-1984	Brazil, Chile and the Bolivarian Republic of Venezuela.
1985	Belgium and Luxembourg, Brazil, Chile and the Bolivarian Republic of Venezuela.
1986-1993	Belgium and Luxembourg, Brazil, Chile, Ecuador and the Bolivarian Republic of Venezuela.
1994	Belgium and Luxembourg, Brazil, Chile, China, Dominican Republic, Ecuador, France, Germany and Mexico.
1995	Belgium and Luxembourg, Chile, China, Dominican Republic, Ecuador, France, Germany, Mexico and Saudi Arabia.
1996	Brazil, Chile, China, Croatia, Dominican Republic, Ecuador, France, Germany, Malaysia, Mexico, Philippines and Portugal.
1997	Belgium and Luxembourg, Brazil, Chile, Croatia, Dominican Republic, Ecuador, France, Germany, Malaysia, Mexico, Philippines and Portugal.
1998	Belgium and Luxembourg, Belgium/Luxembourg, Brazil, Chile, China, Croatia, Dominican Republic, Ecuador, France, Germany, Hong Kong (China), Kazakhstan, Malaysia, Mexico, Philippines and Portugal.
1999	Belgium and Luxembourg, Brazil, Chile, China, Czech Republic, Dominican Republic, France, Hong Kong (China), Kazakhstan, Malaysia, Mexico, Philippines, Portugal, Saudi Arabia, Singapore and Sweden.
2000	Belgium and Luxembourg, Brazil, Chile, China, Czech Republic, Dominican Republic, France, Hong Kong (China), Japan, Kazakhstan, Latvia, Malaysia, Mexico, Portugal, Singapore and Sweden.
2001	Belgium and Luxembourg, Brazil, Chile, China, Czech Republic, Ecuador, France, Germany, Hong Kong (China), Japan, Kazakhstan, Latvia, Malaysia, Mexico, Philippines, Portugal and Singapore.
2002	Brazil, Chile, China, Dominican Republic, Ecuador, France, Germany, Hong Kong (China), Japan, Kazakhstan, Latvia, Mexico, Portugal and Sweden.

2003	Brazil, Chile, China, Dominican Republic, Ecuador, France, Germany, Hong Kong (China), Kazakhstan, Latvia, Mexico, Portugal and Sweden.
2004	Brazil, Chile, China, Czech Republic, Dominican Republic, Ecuador, Hong Kong (China), Japan, Kazakhstan, Latvia, Lithuania, Mexico, Portugal and Sweden.
2005	Brazil, China, France, Germany, Hong Kong (China), Japan, Republic of Korea, Malaysia, Mexico, Saudi Arabia and Sweden.
2006	Brazil, France, Germany, Hong Kong (China), Japan, Republic of Korea, Malaysia, Mexico and Sweden.
2007	China and Mexico.

- Inward stock

Estimated by accumulating inflows since 1974.

- Outward stock

Estimated by accumulating outflows since 1975.

- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Chile**

- National institution reporting FDI:

- Banco Central de Chile

- Data source used in the report:

- Flows

The national institution mentioned above.

- Inward stock

Data prior to 1997 are estimated by subtracting inflows from the stock of 1997. 1997-2007 data are based on the national institution.

- Outward stock

Data prior to 1997 are estimated by accumulating outflows since 1977. 1997-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1996.
 - ❖ Outflows from 1997.
 - ❖ Stocks from 1997.

- **China**

- National institution reporting FDI:

- Data from the Ministry of Commerce (MOFCOM) are used for inflows. These data are reported on a gross basis (or do not take into account debits of inward transactions). Data on outflows for 2003-2006 were obtained from the same ministry.
 - Outflows data prior to 2003 were obtained from State Administration of Foreign Exchange (SAFE).
 - Data from MOFCOM are used for stock.

- Reporting system used:

- Administrative sources.

- Data source used in the report:

- Inflows

IMF for 1980, World Bank for 1981 and MOFCOM thereafter.

- Outflows

SAFE prior to 2003 and MOFCOM thereafter.

Note: Data for 2007 is calculated by adding the flows of non-financial sector to the estimated flows of the financial sector. The flows of the financial sector are estimated by applying the growth rate of the non-financial sector.

- Inward stock
Data prior to 1994 are estimated by accumulating inflows since 1979. 1994-2007 data are based on MOFCOM.
- Outward stock
Data prior to 2003 are estimated by accumulating outflows since 1982. 2003-2006 are based on MOFCOM. 2007 data is estimated by adding outflows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1997-2006.
 - ❖ Outflows for 2003-2006.

● **Colombia**

- National institution reporting FDI:
 - Banco de la Republica de Colombia
- Data source used in the report:
The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 2000.
 - ❖ Inward stock from 1996.

● **Comoros**

- National institution reporting FDI:
 - Banque Centrale des Comores
- Data source used in the report:
 - Inflows
OECD for 1982, 1996-1997, IMF for 1987-1995, the IMF country report , March 2004, No. 04 /77 for 1998, the national institution mentioned above for 1999-2006 and estimates for 2007.
 - Outflows
IMF for 1990.
 - Inward stock
Estimated by accumulating inflows since 1978.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1987.

● **Congo, Democratic Republic of**

- Data source used in the report:
 - Inflows
OECD for 1980-2000 and 2004-2006, IMF country report, April 2004, No. 04/97 for 2001-2003 and estimate for 2007.
 - Outflows
Proxy.
Note: Proxy is based on investments reported by the following economies:

1993 and 1995	France.
1996	Belgium and Luxembourg and France.
1997	Belgium and Luxembourg, France and the United States.
1998	Belgium and Luxembourg and the United States.
1999-2001	Belgium and Luxembourg.
2002	Belgium.
2003	Portugal.
2004	Cyprus.
 - Inward stock
Estimated by accumulating inflows since 1970.

- Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.
- **Cook Islands**
- Data source used in the report:
 - Inflows
OECD for 1988-1991, 1994-2002 and 2004-2006 and estimate for 2007.
 - Outflows
Proxy. For 1993 and 1995-2006 and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1993 and 1995-1999	New Zealand.
2000	Fiji.
2001 and 2006	Brazil.
2002-2005	Brazil and the Philippines.
 - Inward stock
Estimated by accumulating inflows since 1988.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.
- **Costa Rica**
- National institution reporting FDI:
 - Banco Central de Costa Rica
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock
Data prior to 1995 are estimated by accumulating inflows since 1970. 1995 is estimated by subtracting inflows from the stock of 1996. 1996-2007 data are based on the national institution.
 - Outward stock
Data prior to 1996 are estimated by accumulating outflows since 1978. 1996-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1980.
 - ❖ Outflows for 1991-1992 and 2002-2007.
 - ❖ Inward stock from 1996.
 - ❖ Outward stock from 2002.
- **Croatia**
- National institution reporting FDI:
 - Croatian National Bank
- Data source used in the report:
 - Flows and outward stock
The national institution mentioned above.
 - Inward stock
Data prior to 1996 are estimated by subtracting inflows from the stock of 1996. 1996-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1997.
 - ❖ Stocks for from 1998.

- **Cuba**

- Data source used in the report:

- Inflows

- OECD for 1980 and 1982-2002, OECD and China for 2003-2006 and estimate for 2007.

- Outflows

- Proxy and estimate for 2007.

- Note:* Proxy is based on investments reported by the following economies:

1987 and 1991	Belgium and Luxembourg.
1994	United States.
1995 and 1999	Kyrgyzstan.
1996 and 1998	Kyrgyzstan and Germany
2001	Armenia, Brazil and Portugal.
2002	Brazil, Cyprus and Kyrgyzstan.
2003 and 2005	Brazil and United States
2004	Brazil
2006	Germany and the United States

- Inward stock

- Estimated by accumulating inflows since 1970.

- Outward stock

- Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Cyprus**

- National institution reporting FDI:

- Central Bank of Cyprus

- Reporting system used:

- As of 1st January 2002, when the new reporting system was introduced, balance of payments statistics are being compiled on the basis of the BPM5 definition of residency whereby natural persons are considered to be residents when they reside (or intend to reside) for more than a year in a country, while legal entities are considered to be residents of a country when they have a physical presence in that country (e.g. operating through own office).

- In 2004, the Central Bank of Cyprus has estimated annual past data consistent with the BPM5 residency definition for the years 1995 to 2001. For the years from 1995 to 2001, annual data in line with the BPM5 presentation, but based on the old exchange control definition of residency, are available. As from 2001, quarterly data in line with the BPM5 methodology, based on the new definition of residency, are also available.

- Data on Flows are obtained from the settlement system, from the accounts and other reports submitted by the international business companies and from the returns submitted to the Banking Supervision and Regulation Division (concerning banks' own investments); data on inward investment in real estate (purchases and sales) are collected from the Department of Land and Surveys. Data obtained from different sources are checked for consistency. Information on the initiation of an FDI relationship is obtained from the statistical declarations submitted by resident direct investors to the domestic banks and forwarded to the Central Bank of Cyprus (CBC) and the statistical declaration submitted by representatives (lawyers and accountants) of non-resident direct investors to the CBC.

- Concerning stock data, as of 2006, actual FDI stock data, both inward and outward, will be collected through the new comprehensive questionnaire for resident direct investors and resident direct investment enterprises (as part of our new direct

reporting system which is expected to be introduced within this year). For the 2002 and 2005 data, a simple accumulation of flows supplemented by stock figures as shown in the annual accounts of FDI companies, were used to estimate FDI positions.

- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock
Data prior to 2002 are estimated by subtracting inflows from the stock of 2002. 2002-2007 data are based on the national institution.
 - Outward stock
Data prior to 2002 are estimated by accumulating outflows since 1985. 2002-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-1985 and 1997-2007.
 - ❖ Outflows from 1997.
 - ❖ Stocks from 2002.

● **Czech Republic**

- National institution reporting FDI:
 - Czech National Bank
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Market price for flows.
 - Book value for stock.
- Data source used in the report:
 - Inflows
The national institution mentioned above.
 - Outflows
Estimate for 1992 and the national institution thereafter.
 - Stocks
Data prior to 1992 are estimated by subtracting flows from the stock of 1992. 1992-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1998.
 - ❖ Stocks from 1997.

● **Denmark**

- National institution reporting FDI:
 - National Bank of Denmark
Note: Data obtained from the National Bank of Denmark exclude investment by and from SPEs (pass through investment).
- Data source used in the report:
 - Flows
IMF for 1980-1984 and the national institution mentioned above thereafter.
 - Inward stock
The national institution. 2007 data is estimated by adding inflows to the stock of 2006.
 - Outward stock
1980-1991, 1994-2006 are based on the national institution. 1992-1993 are based on IMF. 2007 data is estimated by adding outflows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 2005.
 - ❖ Stocks for 1991-2006.

1985	Belgium and Luxembourg, Brazil, Peru and the United States.
1986 and 1990	Belgium and Luxembourg and the United States.
1987	Belgium and Luxembourg, Brazil and the United States.
1988	Belgium and Luxembourg, Chile, Peru and the United States.
1989	Belgium and Luxembourg, Chile and the United States.
1991	Chile.
1992	Belgium and Luxembourg, Chile, France, Peru and the United States.
1993	Belgium and Luxembourg, China, France, Peru and the United States.
1994	Belgium and Luxembourg, Chile, China, France, Panama, Paraguay and Peru.
1995	Panama and Peru.
1996	Chile, France, Peru and the United States.
1997	Chile, France, Panama, Peru and the Bolivarian Republic of Venezuela.
1998-1999	Panama, Peru and the Bolivarian Republic of Venezuela.
2000	Panama, Peru, Sweden and the Bolivarian Republic of Venezuela.
2001	Brazil, Sweden, the Bolivarian Republic of Venezuela.
2002	Bolivia, Brazil and the Bolivarian Republic of Venezuela.
2003	Bolivia and Brazil.
2004	Brazil.
2005	Brazil, France, Panama, Peru and the United States.
2006	Brazil and the United States.

- Inward stock

1980-1990 and 1993-2007 data are based on the national institution. 1991-1992 are estimated by adding inflows to the stock of 1990.

- Outward stock

Estimated by accumulating outflows since 1976.

- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1993.
 - ❖ Inward stock for 2000-2006.

- **Egypt**

- National institution reporting FDI:
 - Central Bank of Egypt
- Data source used in the report:

- Flows

The national institution mentioned above.

Notes: The petroleum sector is included in FDI inflows statistics as of the third quarter of 2004.

- Inward stock

Data prior to 1997 are estimated by accumulating inflows since 1970. 1997-2007 data are based on the national institution.

- Outward stock

Data prior to 1997 are estimated by accumulating outflows since 1977. 1997-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:
 - ❖ Inflows from 2005.

- **El Salvador**

- National institution reporting FDI:
 - Banco Central de Reserva de El Salvador

- Data source used in the report:
 - Inflows
IMF for 1980-1993 and 1995-1996, OECD for 1994 and the national institution mentioned above for 1997-2007.
 - Outflows
Proxy for 1992-1995, IMF for 1996, estimate for 1997 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:
 - 1992 Costa Rica.
 - 1993 Costa Rica and the United States.
 - 1994-1995 Costa Rica, France, Honduras, the United States and the Bolivarian Republic of Venezuela.
 - Inward stock
1980-1990, 1993-1995 and 1997-2007 data are based on the national institution. 1991-1992 data are estimated by adding inflows to the stock of 1990. 1996 data is based on the IMF.
 - Outward stock
Data prior to 1996 are estimated by subtracting outflows from the stock of 1996. 1996 data is based on the IMF. 1997-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-1983, 1985-1991 and 1999-2007.
 - ❖ Stocks from 2002.
- **Eritrea**
- Data source used in the report:
 - Inflows
IMF for 1996-2000, IMF country report, June 2003, No. 03/165 for 2001-2003, OECD for 2004-2006 and estimate for 2007.
 - Inward stock
Estimated by accumulating inflows since 1996.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.
- **Estonia**
- National institution reporting FDI:
 - Bank of Estonia
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - FDI stocks
Data prior to 1996 are estimated by subtracting flows from the stock of 1996. 1996-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1992.
 - ❖ Stocks from 1996.
- **Ethiopia**
- National institution reporting FDI:
 - National Bank of Ethiopia
- Data source used in the report:
 - Inflows

OECD for 1980-1988, World Bank for 1989-1991, the national institution mentioned above for 1992-2004 and IMF for 2005-2006. 2007 data is estimated by annualizing IMF data for the three quarters of 2007.

- Inward stock

Data are estimated by accumulating inflows since 1970.

- Outward FDI

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Falkland Islands (Malvinas)**

- Data source used in the report:

- Inflows

OECD for 1989, 1991 and 1995-2001 and proxy based on investment reported by Japan for 2006.

- Inward stock

Estimated by subtracting accumulating inflows since 1989.

- Outward FDI

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Fiji**

- National institution reporting FDI:

- Reserve Bank of Fiji and Fiji Islands Bureau of Statistics

- Data source used in the report:

- Flows

The national institution mentioned above. 2007 is estimated by annualizing the national institution data for the first three quarters of 2007.

- Inward stock

1980-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2007.

- Outward stock

Data prior to 1999 are estimated by accumulating outflows since 1980. 1999-2006 data are based on the national institution. 2007 are estimated by adding outflows to the stock of 2006.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1980-2006.

- ❖ Inward stock for 1999-2006.

- **Finland**

- National institution reporting FDI:

- Bank of Finland

- Reporting system used:

- Enterprise surveys. The Bank of Finland maintains the frame for the annual FDI surveys and the main data source for the frame is Structural Business Register of Statistics Finland.

- Valuation system used:

- Flows are based on current price.

- Stocks are based on book value.

- Data source used in the report:

The national institution mentioned above.

- Availability of all FDI flows and stock components:

- ❖ All.

- **France**

- National institution reporting FDI:
 - Banque de France
- Valuation system used:
 - Stocks are reported on both book value and market value. Data used in the report are on book value.
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock
Data prior to 1989 are estimated by subtracting inflows from the stock of 1989. 1989-2007 data are based on the national institution.
 - Outward stock
Data prior to 1987 are estimated by subtracting outflows from the stock of 1987. 1987-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-1981 and 1989-2007.
 - ❖ Outflows for 1980-1982 and 1989-2007.
 - ❖ Inward stock for 1989-2005.
 - ❖ Outward stock for 1987-2005.

- **French Guiana**

- Data source used in the report:
 - Inflows
Proxy. .
Note: Proxy is based on investments reported by the following economies:
1987 and 1992-1994 Belgium and Luxembourg.
1989-1990 Belgium and Luxembourg and the United States.
1996-1998 and 2001 United States.
 - Inward stock
Not available.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **French Polynesia**

- Data source used in the report:
 - Inflows
OECD for 1981 and 1985-2001, proxy based on investments reported by the United States for 1982-1984, IMF for 2002-2006 and estimate for 2007.
 - Outflows
Proxy based on investments reported by the United States for 1995-1996, MF for 2002-2006 and estimate for 2007.
 - Inward stock
Estimated by accumulating inflows since 1975.
 - Outward FDI
Estimated by accumulating outflows since 2002.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Gambia**

- National institution reporting FDI:

- Central Bank of the Gambia
- Data source used in the report:
 - Inflows
OECD for 1980, 1982-1986, IMF for 1981 and 1987-1989 and the national institution mentioned above thereafter.
 - Inward stock
Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2001 data are based on the national institution. 2002-2007 data are estimated by adding inflows to the stock of 2001.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Georgia

- National institution reporting FDI:
 - Department for Statistics, Ministry for Economic Development of Georgia
- Reporting system used:
 - Inward flows and stock are based on surveys.
 - Outward flows are based on administrative sources and other secondary sources (press, etc.).
- Valuation system used:
 - Inward flows and stock are based on book value.
 - Outward flows are based on book value and current price.
- Data source used in the report:
 - Inflows
EBRD for 1993-1996 and the national institution mentioned above thereafter.
 - Outflows
The national institution.
 - Inward stock
Data prior to 1995 are estimated by subtracting inflows from the stock of 1995. 1995-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2006.
 - Outward stock
The national institution. 2007 data is estimated by adding outflows to the 2006 stock.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 2002.
 - ❖ Inward stock for 2002-2006.
 - ❖ Outflows from 2006.
 - ❖ Outward stock for 2005-2006.

● Germany

- National institution reporting FDI:
 - Deutsche Bundesbank
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
The national institution. 2007 data is estimated by adding flows to the 2006 stock.
- Availability of all FDI flows and stock components:
 - ❖ Flows.

● Ghana

- National institution reporting FDI:

- Bank of Ghana
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy.
Note: Proxy is based on investments reported by the following economies:

1996 and 1998	Germany.
1997	France and Malaysia.
1999	United Republic of Tanzania and the United States.
2001	Germany and the United Republic of Tanzania.
2002	Germany and the United States.
2003	Cyprus and the United States.
2004	United States
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-1981.
- **Gibraltar**
- Data source used in the report:
 - Inflows
OECD for 1980-2004 and estimates for 2005-2007.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1970.
- Availability of all FDI flows and stock components:
 - ❖ Not available.
- **Greece**
- National institution reporting FDI:
 - Bank of Greece
- Reporting system used:
 - ITRS and surveys for flows.
 - Surveys for stocks-
- Note:* data revisions as of 2003 to include reinvested earnings
- Valuation system used:
 - Current price for flows,
 - Current price for data based on listed enterprises and, book value for data based on non- listed enterprises for inward stock. Book value for data on outward stock.
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy for 1987-1997 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:

1987 and 1989	Belgium and Luxembourg, Denmark, France, Germany and the United States.
1988	Belgium and Luxembourg, France; Germany and the United States.

1990-1991	Belgium and Luxembourg, France, Germany, Netherlands and the United States.
1992	Belgium and Luxembourg, France, Germany, Netherlands, Thailand and the United States.
1993	Belgium and Luxembourg, France, Germany, Netherlands, Spain, Thailand and the United States.
1994	Belgium and Luxembourg, China, Denmark, France, Germany, Netherlands, Spain, Thailand and the United States.
1995	Austria, Belgium and Luxembourg, China, France, Germany, Italy, Netherlands, New Zealand, Portugal, Spain, Thailand and the United States.
1996	Austria, Belgium and Luxembourg, France, Germany, Italy, Netherlands, New Zealand, Portugal, Spain, Thailand and the United States.
1997	Albania, Australia, Austria, Belgium and Luxembourg, France, Germany, India, Italy, Netherlands, New Zealand, Portugal, Spain and the United States.

- Inward stock

Data for 1980-1989 and 1997-2007 are based on the national institution. 1990-1996 data are estimated by subtracting inflows from the stock of 1997.

- Outward stock

Data prior to 1997 are estimated by subtracting outflows from the stock of 1997. 1997-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

- ❖ Flows from 2003.
- ❖ Stocks from 2000.

- **Guadeloupe**

- Data source used in the report:

- Inflows

Proxy based on investments reported by Belgium and Luxembourg for 1986-1994, 1997 and 1999-2000.

- Outflows

Not available.

- Stocks

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Guatemala**

- National institution reporting FDI:

- Banco de Guatemala

- Data source used in the report:

- Inflows

The national institution mentioned above.

- Outflows

Proxy and the national institution for 2001-2007.

Note: Proxy is based on investments reported by the following economies:

1980-1982, 1984 and 1987-1989	United States.
1993	Costa Rica and Honduras.
1994	China, Costa Rica and Honduras.
1995	Costa Rica, Honduras and the United States.
1996	Belgium and Luxembourg, Costa Rica, Germany and Honduras.

1997	Costa Rica, Germany, Honduras and Portugal.
1998	Costa Rica, El Salvador, Germany, Honduras and the United States.
1999-2000	Costa Rica, El Salvador, Honduras and the United States.

- Inward stock

Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2007 data are based on the national institution.

- Outward stock

Estimated by accumulating outflows since 1996.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1988.

- **Guinea**

- National institution reporting FDI:

- Banque Centrale de la République de Guinée

- Data source used in the report:

- Inflows

OECD for 1980-1981 and 1983-1985, World Bank for 1982, IMF for 1986-2001, the national institution mentioned above for 2002-2005 and estimates for 2006-2007.

- Outflows

Proxy and IMF for 1996.

Note: Proxy is based on investments reported by the following economies:

1985-1986 and 1990	Belgium and Luxembourg.
1988-1989 and 1991-1993	Belgium and Luxembourg and France.
1994	Belgium and Luxembourg and China.
1995 and 2002	France.
1997- 1999, 2001 and 2004-2005	United States.

- Inward stock

Estimated by accumulating inflows since 1973.

- Outward stock

Estimated by accumulating outflows since 1996.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1999.

- **Guyana**

- National institution reporting FDI:

- Bank of Guyana

- Data source used in the report:

- Inflows

IMF for 1980-1985, OECD for 1986-1991 and the national institution mentioned above thereafter.

- Outflows

Proxy.

Note: Proxy is based on investments reported by the following economies:

1991	France.
1992-1993, 1996 and 1999-2000	United States.
2001-2002 and 2004	Brazil.

- Inward stock

Estimated by accumulating inflows since 1970.

- Outward stock

Estimated by accumulating outflows since 1993.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1996.

- **Haiti**

- National institution reporting FDI:
 - Banque de la République d'Haïti
- Reporting system used:
 - Administrative sources.
- Valuation system used:
 - Book value
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy and the national institution for 1990-1991.
Note: Proxy is based on investments reported by the following economies:
1983, 1997 and 1999 United States
1989 France.
1995-1996 France and the United States.
 - Inward stock
Data prior to 1997 are estimated by accumulating inflows since 1970. 1997-2007 data are based on the national institution.
 - Outward stock
Estimated by accumulating outflows since 1995.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Honduras**

- National institution reporting FDI:
 - Banco Central de Honduras
- Reporting system used:
 - Surveys and administrative forms.
- Valuation system used:
 - Current prices.
- Data source used in the report:
 - Inflows
The national institution mentioned above.
 - Outflows
Proxy and the national institution for 2000-2007.
Note: Proxy is based on investments reported by the following economies:
1980-1984 and 1987-1996 United States.
1997 Malaysia and the United States.
1998 El Salvador, Malaysia, Peru and the United States.
1999 Chile and the United States.
 - Stocks
The national institution. 2007 data is estimated by adding flows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1987-1989 and 1993-2007.
 - ❖ Inward stock for 2004-2006.

- **Hong Kong, China**

- National institution reporting FDI:
 - Census and Statistics Department
- Reporting system used:
 - Surveys.

- Valuation system used:
 - o Current price for flows.
 - o Market value for stocks.
 - Note:* * Data on inward stock are based on market value, in accordance with international standards and practices. Thus, the inward Stocks for 1997 onwards are not directly comparable to that of previous years.
 - * Figures before 1998 are not available. Individual figures may not add up exactly to the total due to rounding.
 - * As from reference year 1998, inward direct investment statistics have been enhanced in coverage in accordance with international standards and practices and they are valued at market value. The inward direct investment stocks for 1997 (i.e. beginning of 1998) and 1998 presented in this table are therefore not directly comparable to previously released figures.
- Data source used in the report:
 - Inflows
Data prior to 1998 are estimated using investment from major economies. Data are based on the national institution mentioned above thereafter.
Note: 2007 data is preliminary.
 - Outflows
Proxy for 1980-1997 and the national institution thereafter.
Notes: * 2007 data is preliminary.
* Proxy is based on investments reported by the following economies:

1980-1995	China, European Union and the United States.
1996	China, European Union, Japan and the United States.
1997	China, Germany, Sweden and the United States.
 - Inward stock
Data prior to 1997 are estimated by subtracting inflows from the stock of 1997. 1997-2007 data are based on the national institution.
Note: 2007 data is preliminary.
 - Outward stock
Data prior to 1997 are estimated by using a proxy (the United States for 1980-1983 and China and the United States for 1984-1996). 1997-2007 data are based on the national institution.
Note: 2007 data is preliminary.
- Availability of all FDI flows and stock components:
 - ❖ From 1998.

● Hungary

- National institution reporting FDI:
 - o Central Bank of Hungary (MNB)
- Reporting system used:
 - o Surveys.
 - Notes:* * FDI statistics has been compiled on the basis of corporate questionnaires including reinvested earnings since 1999 and the MNB has estimated comparable data for the period 1995–1998(The estimation based on the corporate tax return database as well as publicly available information on enterprises quoted on the stock exchange for direct investment by non-residents in Hungary). For estimating stock data on direct investment by Hungarian residents abroad in the absence of other meaningful information, the Bank has used the aggregated settlements data.
 - * As announced in the MNB's press release of June 30, a methodological change was introduced in the recording and publishing of data on FDI flows and stocks. As of 2006, the MNB data series present in addition statistics on SPEs.

- Data source used in the report:
 - Inflows
The national institution mentioned above.
 - Outflows
IMF for 1992-1994 and the national institution thereafter.
 - Inward stock
The national institution.
 - Outward stock
Data prior to 1995 are estimated by subtracting outflows from the stock of 1995. 1995-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ From 1995.

● Iceland

- National institution reporting FDI:
 - Central Bank of Iceland
- Data source used in the report:
 - Inflows
IMF for 1980-1987 and the national institution mentioned above thereafter.
 - Outflows
IMF for 1986-1987 and the national institution thereafter.
 - Stocks
Data prior to 1988 are estimated by subtracting flows from the stock of 1988. 1988-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ From 1988.

● India

- National institution reporting FDI:
 - Reserve Bank of India
- Data source used in the report:
 - Inflows
OECD for 1980-1990 and the national institution mentioned above thereafter.
 - Outflows
Proxy based on investments reported by the European Union and the United States for 1980-1992 and the national institution thereafter.
 - Inward stock
Data prior to 1997 are estimated by accumulating inflows since 1970. 1997-2007 data are based on the national institution.
 - Outward stock
Data prior to 1987 are estimated by subtracting outflows from the stock of 1987. 1987, 1992 and 1997-2007 data are based on the national institution. 1988-1991 data are estimated by adding outflows from the stock of 1987. 1993-1995 data are estimated by adding outflows from the stock of 1992.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 2000.
 - ❖ Inward stock from 1997.
 - ❖ Outward stock from 2001.

● Indonesia

- National institution reporting FDI:
 - Bank of Indonesia
- Reporting system used:
 - Surveys.

Notes: * FDI stock data are collected through the FDI survey, in line with the recommendations of the BPM5, conducted twice a year since 2001 for the purpose of IIP publication. The survey is based on purposive sampling method and covers all economic sectors. The total respondent is around 900, comprising companies and enterprises, banks and non-bank financial institutions - on average the response rate of the survey is around 50%.

* As of 2004 inward flows include equity investment from oil and gas companies and reinvested earnings. These data are included in equity (i.e. equity for Indonesia constitute in fact equity and reinvested earnings).

- Valuation system used:

- o Book value (derived from the accounting record of the individual reporting enterprises).

- Data source used in the report:

▪ Inflows

The national institution mentioned above thereafter.

▪ Outflows

Proxy and the national institution for 1990-2001 and 2004-2007.

Note: Proxy is based on investments reported by the following economies:

1980-1989 European Union and the United States.

2002 Austria, Brazil, China, Czech Republic, France, Germany, Japan, Malaysia, Netherlands, Sweden, Thailand and the United States.

2003 Australia, Brazil, Bulgaria, China, Cyprus, Czech Republic, France, Germany, Malaysia, Myanmar, Netherlands, Poland, Sweden, Thailand and the United States.

▪ Inward stock

Data prior to 2001 are estimated by accumulating inflows since 1970. 2001-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2005.

▪ Outward stock

Estimated by accumulating outflows since 1980.

- Availability of all FDI flows and stock components:

- ❖ Inward stock for 2001-2006.

● **Iran, Islamic Republic of**

- National institution reporting FDI:

- o Ministry of Economic Affairs and Finance, Organization for Investment, Economic and Technical Assistance

- Data source used in the report:

▪ Inflows

OECD for 1980-1993 and the national institution mentioned above thereafter.

▪ Outflows

Proxy and estimate for 2007.

Note: Proxy is based on investments reported by the following economies:

1980-1985 United States.

1986 Belgium and Luxembourg, France and the United States

1987-1989 and 1991-1993 Belgium and Luxembourg, France and Germany.

1990 Belgium and Luxembourg and France.

1994 Belgium and Luxembourg, France, Germany, Pakistan

1995 France, Germany and the United States.

1996 Azerbaijan, France, Germany and the United States.

1997 Azerbaijan, Belgium and Luxembourg, France, Germany and the United States.

1998	Armenia, Azerbaijan, Belgium/Luxembourg, France, Germany, Kyrgyzstan and Sweden.
1999	Armenia, Azerbaijan, Belgium/Luxembourg, Bulgaria, Czech Republic, France, Germany, Kyrgyzstan and Sweden.
2000	Armenia, Azerbaijan, Cyprus, France, Germany, Kazakhstan, Kyrgyzstan and Sweden.
2001	Armenia, Azerbaijan, Belgium/Luxembourg, Cyprus, Czech Republic, France, Germany, Kazakhstan, Kyrgyzstan and Sweden.
2002	Armenia, Azerbaijan, Bulgaria, Cyprus, France, Germany, Hungary, Kazakhstan, Kyrgyzstan, Portugal and Sweden.
2003	Armenia, Belgium, Bulgaria, Cyprus, France, Germany, Hungary, Kazakhstan, Kyrgyzstan and Romania.
2004	Armenia, Bulgaria, Cyprus, Germany, Hungary, Kazakhstan, Kyrgyzstan, Poland, Portugal, Romania, Saudi Arabia and the FYR of Macedonia.
2005	Armenia, Bulgaria, Cyprus, Germany, Hungary, Kazakhstan, Kyrgyzstan, Romania, Saudi Arabia and the FYR of Macedonia.
2006	Brazil, Bulgaria, Germany, Hungary and Kazakhstan.

- Inward stock

Estimated by accumulating inflows since 1970.

- Outward stock

Estimated by accumulating outflows since 1991.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1994.

- **Iraq**

- National institution reporting FDI:

- Central Bank of Iraq

- Data source used in the report:

- Inflows

OECD for 1980-1995 and 1997-2003, proxy based on investment reported by Germany for 1996, the national institution mentioned above for 2004-2005, IMF for 2006 and estimate for 2007.

- Outward FDI

Not available.

- Inward stock

Estimated by accumulating inflows since 1970.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Ireland**

- National institution reporting FDI:

- Central Statistics Office of the Republic of Ireland

- Reporting system used:

- Surveys.

- Valuation system used:

- Market value.

- Data source used in the report:

- Inflows

IMF for 1980-1985 and the national institution mentioned above thereafter.

- Outflows

Proxy for 1987-1989 and the national institution thereafter.

Note: Proxy is based on investments reported by the following economies:

1987 Belgium and Luxembourg, Denmark, France, Germany, Netherlands and the United States.

1988 Belgium and Luxembourg, France, Germany, Netherlands, the United Kingdom and the United States.

1989 Belgium and Luxembourg, Denmark, France, Germany, Netherlands, the United Kingdom and the United States.

- FDI stocks

Data prior to 1997 are estimated by subtracting flows from the stock of 1997. 1997-2006 data are based on the national institution. 2007 data is estimated by adding flows to the 2006 stock.

- Availability of all FDI flows and stock components:

- ❖ Flows from 1998.
- ❖ Stocks from 1998-2006.

- **Israel**

- National institution reporting FDI:

- Bank of Israel

- Reporting system used:

- ITRS and Debtor Reporting System (DRS).

- Valuation system used:

- Flows are based on current prices.
- Stocks are based on book value.

- Data source used:

- Flows

The national institution mentioned above.

- Inward stock

Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2007 data are based on the national institution.

- Outward stock

Data prior to 1990 are estimated by accumulating outflows since 1976. 1990-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1982-1989 and 1994-2007.
- ❖ Outflows from 1999.
- ❖ Inward stock from 1994.
- ❖ Outward stock from 1996.

- **Italy**

- National institution reporting FDI:

- Ufficio Italiano dei Cambi

- Reporting system used:

- ITRS and surveys.

- Valuation system used:

- Current price

- Data source used in the report:

- Flows

IMF for 1980-1988 and the national institution mentioned above thereafter.

- Inward stock

The national institution.

- Outward stock

IMF for 1980-1987 and the national institution thereafter.

- Availability of all FDI flows and stock components:

- ❖ Flows from 1999.
- ❖ Stocks from 2005.

- **Jamaica**

- National institution reporting FDI:

- Bank of Jamaica

- Data source used in the report:

- Inflows

IMF for 1980-1989 and 2006, the national institution mentioned above for 1990-2005 and estimate for 2007.

- Outflows

The national institution for 1990-2005, IMF for 2006 and estimate for 2007.

- Inward stock

Data prior to 2005 are estimated by subtracting inflows from the stock of 2005. 2005-2006 data are based on the IMF. 2007 data is estimated by adding inflows to the stock of 2006.

- Outward stock

Estimated by accumulating flows since 1970.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1987 and 1989-2006.

- **Japan**

- National institution reporting FDI:

- Bank of Japan

- Reporting system used:

- For flows, data on equity and other capital are based ITRS whereas data on reinvested earnings are based on surveys, which were started from 1996.
- For stock, data are accumulated flows of equity and other capital based on ITRS whereas data on reinvested earnings are based on surveys, which were started from 1996.

- Valuation system used:

- Data are based on current prices for equity and other capital and book value for reinvested earnings.

Note: Data from 1996 onward are based on the IMF's *Balance of Payment Manual, fifth edition* (BPM5). Data prior to that year are based on the IMF's *Balance of Payment Manual, fourth edition*.

- Data source used in the report:

The national institution mentioned above.

- Availability of all FDI flows and stock components:

- ❖ Flows from 1996.
- ❖ Stocks from 1995.

- **Jordan**

- National institution reporting FDI:

- Central Bank of Jordan

- Reporting system used:

- Surveys.

Note: * For the first time in 2004, after technical cooperation was given by the Economic and Social Commission for Western Asia (ESCWA) and UNCTAD, a survey on inward FDI was undertaken.

* Inward FDI stock are based on market value.

- Data source and the used in the report:

- Inflows

IMF for 1980-1996 and the national institution mentioned above thereafter.

- Outflows

IMF for 1980-1996, proxy for 1997-1998 and the national institution for 1999-2007.

Note: Proxy is based on investments reported by the following economies:

1997 France, Morocco and the United States.

1998 Algeria and the United States.

- Stocks

Data prior to 2000 are estimated by subtracting inflows from the stock of 2000. 2000-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Kazakhstan**

- National institution reporting FDI:
 - National Bank of Kazakhstan
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Book value and current price.
- Data source used in the report:

The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1996.
 - ❖ Outflows from 2004.
 - ❖ Stocks from 2000.

- **Kenya**

- National institution reporting FDI:
 - Central Bank of Kenya
- Data source used in the report:
 - Flows

IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Inward stock

Estimated by accumulating inflows since 1970.
 - Outward stock

Estimated by accumulating outflows since 1975.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980 and 1987-1989.

- **Kiribati**

- National institution reporting FDI:
 - National Economic Planning Office, Ministry of Finance and Economic Development
- Reporting system used:
 - Administrative sources.
- Valuation system used:
 - Current price.
- Data source used in the report:
 - Inflows

IMF for 1983, 1985-1994, the national institution mentioned above for 1997-2004, OECD for 2005 and estimates for 2006-2007.
 - Outward FDI

Not available.
 - Inward stock

Estimated by accumulating inflows since 1983.

- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Korea, Democratic People's Republic of**

- Data source used in the report:

- Inflows

- Proxy based on investments reported by Belgium and Luxembourg for 1986, OECD for 1987-2006 and estimate for 2007.

- Outflows

- Proxy.

- Note:* Proxy is based on investments reported by the following economies:

1990	Belgium and Luxembourg and China.
1991-1992	Belgium and Luxembourg, China and Thailand.
1993	Belgium and Luxembourg, China, France and Thailand.
1994	Belgium and Luxembourg, Brazil, China, France and Thailand.
1995	Belgium and Luxembourg, China, Fiji, France and Thailand.
1996	Fiji, France and Thailand.
1997	Fiji, France, Malaysia and Thailand.
1998-2002	Thailand.
2003-2004	Germany.

- Inward stock

- Estimated by accumulating inflows since 1987.

- Outward stock

- Not available.

- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Korea, Republic of**

- National institution reporting FDI:

- Ministry of Commerce, Industry and Energy (MOCIE) for inward FDI.
 - Bank of Korea for outward FDI.

- Reporting system used:

- Inward FDI data are based on Administrative system.

- Notes:*
 - * Inward flows from MOCIE include equity, long-term loans, investment in kind (i.e. provision of technology and capital goods) and conversion of convertible bonds.

- * Inward stock refers to implemented inflows less withdrawals accumulated since 1962, whereas outward stock refers to actual investment outflows less withdrawals, accumulated since 1968 (MOCIE inward stock for data after 2001 are based on Bank of Korea data on International Investment Position).

- Data source used in the report:

- Inward FDI

- The national institution (MOCEI).

- Outward FDI

- The national institution (Bank of Korea).

- Availability of all FDI flows and stock components:
 - ❖ Outflows from 1995.
 - ❖ Inward stock from 1997.
 - ❖ Outward stock from 2001.

- **Kuwait**

- National institution reporting FDI:

- Central Bank of Kuwait

❖ Not available.

● Latvia

- National institution reporting FDI:

○ Bank of Latvia

- Reporting system used:

○ Surveys.

- Valuation system used:

○ Market value.

Note: As of 2005, data are reported as close as possible to the market value. The value of unlisted enterprises is obtained using the equity capital approach (own funds at book value) recommended by the European Central Bank, whereas in assessing the value of listed enterprises, the Riga Stock Exchange data used.

- Data source used in the report:

▪ Flows

The national institution mentioned above.

▪ Stocks

Data prior to 1995 are estimated by subtracting flows from the stock of 1995. 1995-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

❖ Flows from 1996.

❖ Stocks from 1995.

● Lebanon

- National institution reporting FDI:

○ Banque du Liban

- Reporting system used:

○ ITRS and administrative sources.

Note: Until 2002, data include only ITRS for the public sector and real estate construction - in the case of inflows. As of 2003 data for both public and private sectors have been used.

- Valuation system used:

○ Current prices.

- Data source used in the report:

▪ Inflows

OECD for 1980-1994, the World Bank for 1995-1996 and the national institution mentioned above thereafter.

▪ Outflows

Proxy for 1980-1996 and the national institution thereafter.

Note: Proxy is based on investments reported by the following economies:

1980 Brazil and Thailand.

1981 Brazil.

1982 Brazil and the United States.

1983 Brazil, Thailand and the United States.

1984 Brazil, United States and the Bolivarian Republic of Venezuela.

1985-1986 Belgium and Luxembourg, Brazil, United States and the Bolivarian Republic of Venezuela.

1987 Belgium and Luxembourg, Brazil and the United States.

1988 and 1990-1991 Belgium and Luxembourg, Brazil, France and the United States.

1989 Belgium and Luxembourg, Brazil, France, Tunisia and the United States.

1992 Belgium and Luxembourg, Brazil, China, France, Malaysia, Tunisia and the United States.

1993 United	Belgium and Luxembourg, Brazil, France, Malaysia and the States.
1994	Belgium and Luxembourg, China, France, Malaysia, Saudi Arabia and the United States.
1995	France, Malaysia and the United States.
1996	Belgium and Luxembourg, France, Malaysia and the United States.

- Inward stock
Estimated by accumulating inflows since 1972.
- Outward stock
Estimated by accumulating outflows since 1982.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Lesotho

- National institution reporting FDI:
 - Central Bank of Lesotho
- Data source used in the report:
 - Inflows
IMF for 1980-1981 and the national institution mentioned above thereafter.
Note: Investment in the Lesotho Highland Water Project is excluded from its FDI statistics as they are not considered as foreign investment by UNCTAD. Investment in this project is reported as "other capital" by the Central Bank of Lesotho and the IMF.
 - Outflows
IMF for 1988, proxy based on investments reported by France for 1997, and the national institution for 2002-2004.
 - Inward stock
Estimated by accumulating inflows since 1977.
 - Outward stock
Estimated by accumulating outflows since 1988.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Liberia

- Data source used in the report:
 - Inflows
OECD for 1980-1982, 1988-1999 and 2003-2006, IMF for 1983-1987, the IMF country report, May 2005, No. 05/166 for 2002 and estimate for 2007.
 - Outflows
Proxy and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1980-1984	Brazil and the United States.
1985-1988 and 1990	Belgium and Luxembourg, Brazil and the United States.
1989 and 1991	Belgium and Luxembourg, Brazil, France and the United States.
1992-1993	Belgium and Luxembourg, Brazil, China, France and the United States.
1994	Belgium and Luxembourg, Brazil, China, France, Malaysia, Pakistan and the United States.
1995	Belgium and Luxembourg, China, France, Germany, Malaysia and the United States.
1996	France, Germany, Malaysia, Portugal and the United States.

1997	Belgium and Luxembourg, France, Portugal and the United States.
1998	Belgium and Luxembourg, Croatia, Germany, Portugal, Saudi Arabia and the United States.
1999	Belgium and Luxembourg and the United States.
2000	Belgium and Luxembourg, France and the United States.
2001	Belgium and Luxembourg, Brazil, Bulgaria, Chile, France, Germany, Latvia and the United States.
2002	Brazil, Bulgaria, Chile, Cyprus, France, Germany, Kazakhstan, Latvia, Sweden and the United States.
2003	Bulgaria, Cyprus, Germany, Kazakhstan and the United States.
2004	Brazil, Bulgaria, Cyprus, Germany, Kazakhstan, Latvia, Romania and the United States.
2005	Brazil, Bulgaria, Chile, Cyprus, Kazakhstan, Latvia and the United States.
2006	Brazil, Bulgaria, Estonia, Kazakhstan and Latvia.

- Inward stock

Estimated by accumulating inflows since 1970.

- Outward stock

Proxy estimate for 2007.

Note: Proxy is based on investments reported by the following economies:

1980-1993	United States.
1994	Chile, Colombia, Indonesia, United States and the Bolivarian Republic of Venezuela.
1995	Brazil, Chile, Colombia, Indonesia, United States and the Bolivarian Republic of Venezuela.
1996	Chile, Colombia, Indonesia, Portugal, the United States and the Bolivarian Republic of Venezuela.
1997-1999	Chile, Colombia, Portugal, United States and the Bolivarian Republic of Venezuela.
2000	Brazil, Chile, Colombia, Croatia, Latvia, Portugal, the United States and the Bolivarian Republic of Venezuela.
2001	Chile, Croatia, Latvia, Portugal, the United States and the Bolivarian Republic of Venezuela.
2002	Chile, Kazakhstan, Latvia, Portugal, the United States and the Bolivarian Republic of Venezuela.
2003	Chile, Kazakhstan, Latvia, Portugal and the United States.
2004-2005	Chile, Croatia, Kazakhstan, Latvia and the United States.
2006	Kazakhstan, Latvia and the United States.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1983-1985.

- **Libyan Arab Jamahiriya**

- National institution reporting FDI:

- Central Bank of Libya

- Reporting system used:

- Surveys.

- Valuation system used:

- Current prices.

- Data source used in the report:

- Flows

The national institution mentioned above.

- FDI stocks

Data prior to 1986 are estimated by subtracting flows from the stock of 1986. 1986-1988 data are based on the IMF. 1989-2007 data are estimated by adding flows to the 1988 stock.

- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Lithuania

- National institution reporting FDI:
 - Bank of Lithuania
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Market price for listed companies and book value for non-listed companies.
- Data source used in the report:

The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1995.
 - ❖ Outflows from 1997.
 - ❖ Stocks from 1996.

● Luxembourg

- National institution reporting FDI:
 - Service Central de la Statistique et des Etudes Economique du Luxembourg (STATEC)
 - Banque Centrale du Luxembourg
- Reporting system used:
 - Surveys.
- Data source used in the report:
 - Flows

The national institutions mentioned above.

Note: Flows data exclude investment by and from SPEs (holding companies and other financial vehicles). However, data include transactions made by these SPEs.
 - Stocks

The national institutions. 2007 data is estimated by adding flows to the 2006 stock.

Note: Stock data have been derived from the annual survey on FDI since 1995. The banking and insurance sectors are covered fully, while only the larger companies are included in the other sectors so as to ensure a high level of significance of the statistics. Stock data on Luxembourg excludes assets and liabilities of SPEs (holding companies and other financial vehicles). The population of companies surveyed has been progressively extended over time.
- Availability of all FDI flows and stock components:
 - ❖ All.

● Macao, China

- National institution reporting FDI:
 - Statistics and Census Service (DSEC)
- Reporting system used:
 - Surveys.

Note: Flows data cover only eight main industries, namely: Industrial Production; construction; wholesale and retail; hotels and restaurants; transport, storage and communications; financial services; cultural, recreational, gambling and other services.
- Valuation system used:
 - Current prices.

- Data source used in the report:
 - Inflows
OECD for 1982-1983 and 1985-2000, the national institution mentioned above for 2001-2006 and estimate for 2007.
 - Outflows
The national institution for 2001-2006 and estimate for 2007.
 - Inward stock
Data prior to 2001 are estimated by subtracting from the stock of 2001. 2001-2006 data are based on the national institution. 2007 is estimated by adding inflows to the 2006 stock.
 - Outward stock
The national institution. 2007 is estimated by adding outflows to the 2006 stock.
- Availability of all FDI flows and stock components:
 - ❖ Flows for 2001-2006.

● **Madagascar**

- National institution reporting FDI:
 - Banque Centrale de Madagascar
- Data source used in the report:
 - Inflows
OECD 1980-1988, IMF for 1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy.
Note: Proxy is based on investments reported by the following economies:

1986-1987	United States.
1988	Belgium and Luxembourg, France and the United States.
1989-1991	Belgium and Luxembourg and France.
1992-1994	Belgium and Luxembourg, China and France.
1995	China and France.
1996	France.
1997	France and the United States.
2001	Belgium and Luxembourg and the United States.
2003	Germany.
 - Inward stock
Data prior to 2000 are estimated by accumulating inflows since 1970. 2000 -2007 data are based on the national institution.
 - Outward stock
Estimated by accumulating outflows since 1986.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 2002.
 - ❖ Inward stock from 2000.

● **Malawi**

- National institution reporting FDI:
 - Reserve Bank of Malawi for outward flows.
- Reporting system used:
 - Surveys.
- Data source used in the report:
 - Inflows
IMF for 1980-1981, 1983, 1985, 1987 and 19994-1996, OECD for 1982, 1984, 1986, 1988-1989 and the national institution mentioned above for 1990-1993 and 1997-2007.
 - Outflows

Estimate for 1996-1998 and the national institution thereafter.

- Inward stock

Data prior to 1997 are estimated by subtracting inflows from the stock of 1997. 1997-2007 data are based on the national institution.

- Outward stock

Estimated by accumulating outflows since 1996.

- Availability of all FDI flows and stock components:
 - ❖ Inflows for 2001-2004.
 - ❖ Inward stock for 2000-2004.
 - ❖ Outflows for 2001 and 2003-2004.

- **Malaysia**

- National institution reporting FDI:
 - Department of Statistics Malaysia
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Market price and book value.
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
The national institution.
 - Inward stock
1980-1989 data are based on the IMF. 1990-1994 and 2001-2007 data are based on the national institution. 1995-2000 data are estimated by adding inflows to the 1994 stock.
 - Outward stock
1980-1994 data are based on the IMF. 2001-2007 data are based on the national institution. 1995-2000 data are estimated by adding outflows to the 1994 stock.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1999.
 - ❖ Outflows from 2001.
 - ❖ Stocks from 2001.

- **Maldives**

- National institution reporting FDI:
 - Maldives Monetary Authority
- Data source used in the report:
 - Inflows
OECD for 1980-1985 and the national institution mentioned above thereafter.
 - Inward stock
Estimated by accumulating inflows since 1973.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Malta**

- National institution reporting FDI:
 - National Statistics Office of Malta
- Reporting system used:
 - Surveys.

Note on Flows: The direct reporting system was installed by the National Statistics Office and the Central Bank of Malta in 2003 for all sectors of its economy. This methodology is applied to data from 1995 onwards. Consequently, FDI statistics record a break in the series since 1995.

- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
The national institution.
 - Inward stock
Data prior to 1994 are estimated by accumulating inflows since 1970. 1994-2006 data are based on the national institution. 2007 data is estimated by adding inflow to the stock of 2006.
 - Outward stock
Data prior to 1994 are estimated by subtracting outflows from the stock of 1994. 1994-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1980.
 - ❖ Outflows from 1995.
 - ❖ Stocks for 1994-2006.

● **Marshall Islands**

- Data source used in the report:
 - Inflows
Proxy based on investments reported by the United States for 1990-1991 and 1993-1995 and by the New Zealand and the United States for 1999-2000, OECD for 1996-1998 and 2001-2006 and estimate for 2007.
 - Outflows
Proxy. And estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1994	China.
1998	Estonia.
2000-2001	The FYR of Macedonia and the United States.
2003	Brazil and Lithuania.
2004	Brazil, Cyprus, Kazakhstan, Lithuania and Romania.
2005-2006	Brazil, Bulgaria, Czech Republic, Kazakhstan, Lithuania and Romania.
 - FDI stocks
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Martinique**

- Data source used in the report:
 - Inflows
Proxy based on investments reported by the United States for 1982 and 1984-1993 and by Belgium and Luxembourg for 1994.
 - Outflows and FDI stocks
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Mauritania**

- National institution reporting FDI:

- Banque Centrale de Mauritanie
- Data source used in the report:
 - Inflows
IMF for 1980-1991 and the national institution mentioned above thereafter.
 - Outflows
IMF for 1986-1988, proxy for 1992-1998 and 2003-2006 and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1992	Belgium and Luxembourg and France.
1993 and 1995-1997	France.
1994	Belgium and Luxembourg, China and France.
1998	Lithuania.
2003-2004	United States.
2005	Morocco and the United States.
2006	France and Morocco.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Estimated by accumulating outflows since 1986.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Mauritius

- National institution reporting FDI:
 - Bank of Mauritius
- Reporting system used:
 - ITRS and Banking records.
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Estimated by accumulating outflows since 1988.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Mayotte

- Data source used in the report:
 - Inflows
OECD.
 - Outflows and FDI stocks
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Mexico

- National institution reporting FDI:
 - Banco de México
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Current price.
- Data source used in the report:
 - Inflows

The national institution mentioned above.

▪ Outflows

Proxy 1980-1991, the national institution for 1992-1998 and 2001-2007 and estimate 1999-2000.

Note: Proxy is based on investments reported by the following economies:

1980	Brazil, Chile and Peru.
1981	Brazil, Chile, Peru, United States and the Bolivarian Republic of Venezuela.
1982	Brazil, Peru, United States and the Bolivarian Republic of Venezuela.
1983	Brazil, Chile, Peru, United States and the Bolivarian Republic of Venezuela.
1984	Brazil, Peru, United States and the Bolivarian Republic of Venezuela.
1985	Belgium and Luxembourg, Brazil, Peru, United States and the Bolivarian Republic of Venezuela.
1986	Brazil, Ecuador, Peru, United States and the Bolivarian Republic of Venezuela.
1987-1988	Belgium and Luxembourg, Brazil, Ecuador, France, Germany, Peru, United States and the Bolivarian Republic of Venezuela.
1989	Belgium and Luxembourg, Brazil, France, Germany, the United States and the Bolivarian Republic of Venezuela.
1990	Belgium and Luxembourg, France, United States and the Bolivarian Republic of Venezuela.
1991	Belgium and Luxembourg, Brazil, Chile, France, Germany, the United States and the Bolivarian Republic of Venezuela.

▪ Inward stock

Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2007 data are based on the national institution.

▪ Outward stock

Data prior to 1997 are estimated by subtracting outflows from the stock of 1997. 1997-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1980.
- ❖ Outflows from 2001.

● **Micronesia, Federated States of**

- Data source used in the report:

▪ Inflows

OECD.

▪ Outflows and FDI Stocks

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

● **Moldova, Republic of**

- National institution reporting FDI:

- National Bank of Moldova

- Reporting system used:

- Surveys.

- Valuation system used:

- Book value and market value for listed enterprises.

- Data source used in the report:

The national institution mentioned above.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1997.

- ❖ Stocks from 1994.

● **Mongolia**

- National institution reporting FDI:
 - Bank of Mongolia
- Data source used in the report:
 - Inflows
OECD for 1986 and 1991 and the national institution mentioned above thereafter.
 - Inward stock
Estimated by accumulating inflows since 1986.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Montenegro**

- National institution reporting FDI:
 - Central Bank of Montenegro
Note: The Central Bank started to operate on March 15, 2001, when the Montenegrin Parliament adopted the "Decision on Appointment of Members of Council of the Central Bank of Montenegro". It started producing FDI statistics since 2002.
- Data source used in the report:
The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Morocco**

- National institution reporting FDI:
 - Office des Changes
- Reporting system used:
 - ITRS serves as the primary source.
 - Surveys for:
 - Reinvested earnings for FDI flows.
 - External debt of foreign affiliates in Morocco for FDI inward stock.
 - Outward stock of Moroccan TNCs.
 - Listed enterprises quoted on the stock exchange in collaboration with the Conseil Déontologique des Valeurs Mobilières (CDVM).
Note: Prior to 2007, the Tanger Free Zone (ZFT) was considered as an extra-territorial zone. Thus, all transactions in the zone were treated as those with non-residents. However, as of 2007, ZFT is considered as part of the Moroccan territory. A data collection system was established to report to the Office des Changes this zone's transactions with the rest of the world.
- Valuation system used:
 - Book value and market value for listed enterprises.
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy for 1985-1989 and the national institution thereafter.
Note: Proxy is based on investments reported by the following economies:
1985-1986 Belgium and Luxembourg.
1987-1988 Belgium and Luxembourg and France.
1989 Belgium and Luxembourg, France and Tunisia.

- Inward stock

Data prior to 2002 are estimated by subtracting inflows from the stock of 2002. 2002-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.

- Outward stock

Data prior to 2002 are estimated by accumulating outflows since 1977. 2002-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the 2006 stock.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1990.
- ❖ Outflows for 2000 and 2004-2007.
- ❖ Stock for 2002-2006.

- **Mozambique**

- National institution reporting FDI:

- Banco de Moçambique

- Reporting system used:

- Surveys and administrative sources.

- Valuation system used:

- Current prices.

- Data source used in the report:

- Inflows

OECD for 1980-1985 and the national institution mentioned above for thereafter.

- Outflows

Proxy for 1989 and 1993-2004 and the national institution for 2005-2007.

Note: Proxy is based on investments reported by the following economies:

1989 and 1995	France.
1993-1994	Belgium and Luxembourg.
1996-1997 and 1999-2004	Portugal.
1998	Germany and Portugal.

- Inward stock

Data prior to 1986 are estimated by accumulating inflows since 1970. The national institution thereafter.

- Outward stock

Data prior to 2005 are estimated by subtracting outflows from the stock of 2005. 2005-2006 data are based on the IMF. 2007 data is estimated by adding outflows to the stock of 2006.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 2004.
- ❖ Inward stock from 2002.
- ❖ Outward stock for 2005-2006.

- **Myanmar**

- National institution reporting FDI:

- Directorate of Investment and Company Administration, Ministry of National Planning and Economic Development.

- Data source used in the report:

- Inflows

OECD for 1980, 1983-1984 and 1986-1987 and the national institution mentioned above for 1989-2004 and ASEAN for 2005-2007.

Note: Data from 1989-2007 are based on fiscal year as at March.

- Outward FDI

Not available.

- Inward stock

Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2005 data are based on the national institution. 2006-2007 data are estimated by adding inflows to the 2005 stock.

Note: Data from the national institution are based on fiscal year as at March.

- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Namibia**

- National institution reporting FDI:
 - Bank of Namibia
- Reporting system used:
 - Surveys (administrative sources are also utilized in some cases).
- Valuation system used:
 - Current Prices and market value.
- Data source used in the report:
 - Inflows
OECD for 1985 and 1987-1989, estimate for 1986 and the national institution mentioned above for 1990-2007.
 - Outflows
The national institution.
 - Inward stock
Data prior to 1989 are estimated by subtracting inflows from the stock of 1989. 1989 data is based on the IMF. 1990-2007 data are based on the national institution.
 - Outward stock
1989 data is based on the IMF. 1990-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1990.
 - ❖ Stocks from 1998.

● **Nauru**

- Data source used in the report:
 - Inflows
OECD and estimate for 2007.
 - Outflows and FDI Stocks
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Nepal**

- National institution reporting FDI:
 - Nepal Rasta Bank
- Data source used in the report:
 - Inflows
OECD for 1980-1991 and 2001 and IMF for 1996-2000 and 2002-2007.
 - Outward FDI
Not available.
 - Inward stock
Data prior to 2001 are estimated by accumulating inflows since 1972. 2001 data is based on the national institution. 2002-2007 data are estimated by adding inflows to the stock of 2001.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Netherlands**

- National institution reporting FDI:
 - o De Nederlandsche Bank
- Data source used in the report:
 - Flows
The national institution mentioned above thereafter.
Note: The new direct reporting system was introduced in April 2003 to improve the method recording intra-company transactions in such a way that the Dutch National Bank (DNB) was able to clearly differentiate between loans taken by or lent abroad by TNCs (including the parent, subsidiary, sister etc.).

- Stocks
The national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1985.
 - ❖ Stocks from 1980.

● **Netherlands Antilles**

- National institution reporting FDI:
 - o Bank van de Nederlandse Antillen
- Data source used in the report:
 - Flows
IMF for 1980-1996 and the national institution mentioned above thereafter.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Estimated by accumulating outflows since 1976.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-1986, 1988-1994 and 1997-2007.
 - ❖ Outflows for 1995 and 1997.

● **New Caledonia**

- Data source used in the report:
 - Inflows
OECD for 1980, 1983, 1985-1986, 1988-1992, 1994-1996 and 1998-2001, estimates for 1981-1982, 1984, 1987, 1993, 1997 and 2007, and IMF for 2002-2006.
 - Outflows
IMF for 2002-2006 and estimate for 2007.
 - Inward stock
Estimated by accumulating inflows since 1972.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Flows for 2006.

● **New Zealand**

- National institution reporting FDI:
 - o New Zealand Statistics
- Reporting system used:
 - o Surveys.
Notes: * Up to 1999 the annual data are as at March and as at December thereafter.
* Flows for 2000 are exceptional. New Zealand Statistics derived the data by adding the last 3 quarters of the calendar year 2000 to the estimated first quarter (estimated by dividing by 4 year 1999 and 2000 as at March)

* Total inflows for 2001 and total outflows for 2000 and 2001 have been suppressed for confidentiality reasons by New Zealand Statistics - IMF data are used for these years.

- Valuation system used:
 - o Market prices.
Notes: * Where financial instruments are denominated in a foreign currency, they are converted at spot exchange rates.
* The time of ownership change is the basis of recording financial transactions and stocks.
* Transactions are recorded on an accrual basis. This requires that some items, representing the difference between the accrual and cash record, have to be recorded as components of the financial account. For example, income in the current account is recorded when earned. The difference between income earned and cash settlement when payment becomes due is included in the accounts as a net financial transaction in the underlying instrument. Similarly, the prepaid premiums and unpaid claims on insurance (i.e. the difference between premiums earned and claims payable on the one hand and premium and claim payments on the other) should be recorded as financial transactions. Every effort is made in data collections to adhere to these principles, and data in the financial account and the IIP are considered to approximate them.
- Data source and used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock
The national institution for 1980-1988 and 1993-2007 and IMF for 1989-1992.
 - Outward stock
Data prior to 1992 are estimated by subtracting outflows from the stock of 1992. 1992 data is based on the IMF. 1993-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-2000 and 2002-2007.
 - ❖ Outflows for 1980-2000.
 - ❖ Inward stock from 1990.
 - ❖ Outward stock from 1997.

● **Nicaragua**

- National institution reporting FDI:
 - o Banco Central de Nicaragua
- Reporting system used:
 - o Surveys, administrative sources, and secondary sources (magazines, newspapers...).
- Valuation system used:
 - o Market value.
- Data source used in the report:
 - Inflows
Estimate for 1980, 1982 and 1984, OECD for 1981, 1985-1988 and 1990, IMF on the basis of net direct investment for 1983, IMF for 1989, and the national institution mentioned above for 1991-2007.
 - Outflows
Proxy .
Note: Proxy is based on investments reported by the following economies:
1981, 1983 and 1985 United States.
1986, 1991 and 1993-1994 Belgium and Luxembourg.
1988 France.

1995	China.
1996-1997	Costa Rica and the United States.
1998	Costa Rica and El Salvador.
1999-2000 and 2003-2006	Costa Rica, El Salvador and Honduras.
2001-2002	Costa Rica, El Salvador, Honduras and the United States.
2007	Costa Rica and El Salvador.

- Inward stock
Estimated by accumulating inflows since 1970.
- Outward stock
Estimated by accumulating outflows since 1993.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Nigeria

- National institution reporting FDI:
 - Central Bank of Nigeria
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter).
 - Outflows
Proxy for 1980-1982 and 1985-1988, the national institution for 1989-2006 and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1980-1982	United States.
1985	Belgium and Luxembourg.
1986-1988	Belgium and Luxembourg, France and the United States.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Estimated by accumulating outflows since 1978.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1990-2004.
 - ❖ Outflows for 1990-1993 and 1995-2006.

● Niue

- Data source and used in the report:
 - Inflows
Proxy based on investments reported by Belgium and Luxembourg for 1997, by Australia for 2006 and by Australia and Latvia for 2004, OECD for 1998-2002 and 2005 and estimates for 2006-2007.
 - Outflows
Proxy.
Note: Proxy is based on investments reported by the following economies:

1996-1997	Belgium and Luxembourg.
1999	Belgium and Luxembourg, Estonia and Lithuania.
2000	Belgium and Luxembourg and Lithuania.
2001	Belgium and Luxembourg, Czech Republic, Estonia, Lithuania and Sweden.
2002	Latvia, Lithuania and Sweden.
2003	Cyprus and Latvia.
2004	Bulgaria, Cyprus, Czech Republic and Latvia.
2005	Bulgaria, Cyprus, Czech Republic and Romania.
2006	Bulgaria and Czech Republic.

2007 Estonia and Lithuania.

- Inward stock
Estimated by accumulating inflows since 1998.
- Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Northern Mariana Islands

- Data source used in the report:
 - Inflows
OECD.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1975.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Norway

- National institution reporting FDI:
 - Statistics Norway
- Reporting system used:
 - ITRS for flows.
 - Surveys for inward stock.
 - Administrative sources for outward stock.
Notes: The outward FDI position statistics reported by Statistics Norway is a continuation of Norges Bank's statistics from 1988 to 2000 and replaces previous estimates for the years 1999, 2000, 2001 and 2002. The major upward shift in stock position is due to new methods, from 1997 to 1998. The figures presented are based on data from the Directorate of Taxes.
- Valuation system used:
 - Current price for flows.
 - Book value for stock.
- Data source used in the report:
 - Flows
IMF for 1980 and the national institutions mentioned above thereafter.
 - Inward stock
Data prior to 1987 are estimated by subtracting inflows from the stock of 1987. 1987-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2006.
 - Outward stock
IMF for 1980-1987 and the national institutions for 1988-2006. 2007 data is estimated by adding outflows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1988.
 - ❖ Stocks for 1990-2006.

● Oman

- National institution reporting FDI:
 - Central Bank of Oman
- Reporting system used:
 - Surveys.

Notes: * For the first time in 2004, after technical cooperation was given by the Economic and Social Commission for Western Asia (ESCWA) and UNCTAD, a survey on inward FDI was undertaken.

* A survey of the foreign investments enterprises has been undertaken jointly by Ministry of national Economy, Ministry of Commerce and Industry and the Central Bank of Oman.

- Data source used in the report:

▪ Inflows

IMF for 1980-1989 and the national institution mentioned above thereafter.

▪ Outflows

Proxy for 1980, 1982, 1985-2001 and the national institution thereafter.

Note: Proxy is based on investments reported by the following economies:

1980, 1982, 1985

and 2000

United States.

1986

Belgium and Luxembourg, Thailand and the United States.

1987

Belgium and Luxembourg and Thailand.

1988:

Thailand and the United States.

1989

Belgium and Luxembourg, France, Thailand and the United States.

1990-1991

France, Thailand and the United States.

1992, 1994,

1996-1997 and 1999

France and the United States.

1993

Belgium and Luxembourg, France, Thailand and the United States.

1995

Belgium and Luxembourg, China, France and the United States.

1998

Malaysia, Thailand and the United States.

2001

France, France, Germany and the United Republic of Tanzania.

▪ Inward stock

Data prior to 2002 are estimated by accumulating inflows since 1970. 2002-2007 data are based on the national institution.

▪ Outward stock

Data prior to 2006 are estimated by subtracting outflows from the stock of 2006. 2006-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

❖ Not available.

● **Pakistan**

- National institution reporting FDI:

○ State Bank of Pakistan

- Reporting system used:

○ ITRS.

- Data source used in the report:

▪ Inflows

IMF for 1980-1984 and the national institution mentioned above thereafter.

▪ Outflows

IMF for 1984 and the national institution thereafter.

▪ Stocks

The national institution.

- Availability of all FDI flows and stock components:

❖ Inflows from 1993.

❖ Inward stock for 2003-2006.

- **Palau**

- Data source used in the report:
 - Inflows
Proxy based on investments reported by the United States for 1989-1992, OECD for 1995-2006 and estimate for 2007.
 - Outward FDI
Proxy based on investments reported by the United States for 2000-2001 and by Japan for 2005.
 - Inward stock
Estimated by accumulating inflows since 1996.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Palestinian Territory**

- National institution reporting FDI:
 - Palestine Central Bureau of Statistics
- Data source used in the report:
 - Flows
The national institution mentioned above thereafter. 2007 data is estimated.
 - Stocks
Estimated by accumulating inflows since 1995.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Panama**

- National institution reporting FDI:
 - Direction de Estadística y Censo
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy.
Note: Proxy is based on investments reported by the following economies:

1980-1981	Argentina, Brazil, Chile, Peru, United States and the Bolivarian Republic of Venezuela.
1982	Argentina, Bolivia, Brazil, Chile, Peru, Thailand, United States and the Bolivarian Republic of Venezuela.
1983	Bolivia, Brazil, Chile, Peru, Thailand, United States and the Bolivarian Republic of Venezuela.
1984	Argentina, Bolivia, Brazil, Chile, Peru, Thailand, United States and the Bolivarian Republic of Venezuela.
1985	Argentina, Belgium and Luxembourg, Bolivia, Brazil, Chile, Peru, Thailand, United States and the Bolivarian Republic of Venezuela.
1986	Argentina, Belgium and Luxembourg, Bolivia, Brazil, Chile, Ecuador, Peru, Thailand, United States and the Bolivarian Republic of Venezuela.
1987	Belgium and Luxembourg, Bolivia, Brazil, Chile, Ecuador, Peru, Thailand, United States and the Bolivarian Republic of Venezuela.
1988	Belgium and Luxembourg, Brazil, Chile, Ecuador, France, Peru, Thailand, the United States and the Bolivarian Republic of Venezuela.

- 1989 Argentina, Belgium and Luxembourg, Bolivia, Brazil, Chile, Ecuador, France, Peru, Sweden, Thailand, the United States and the Bolivarian Republic of Venezuela.
- 1990 Belgium and Luxembourg, Bolivia, Brazil, Chile, China, Ecuador, France, Peru, Thailand, United States and the Bolivarian Republic of Venezuela.
- 1991 Belgium and Luxembourg, Brazil, Chile, China, Ecuador, France, Malaysia, Thailand, United States and the Bolivarian Republic of Venezuela.
- 1992 Belgium and Luxembourg, Brazil, Chile, China, Costa Rica, Ecuador, France, Malaysia, Peru, Sweden, Thailand, the United States and the Bolivarian Republic of Venezuela.
- 1993 Belgium and Luxembourg, Brazil, Chile, China, Costa Rica, Ecuador, France, Honduras, Malaysia, Peru, Thailand, the United States and the Bolivarian Republic of Venezuela.
- 1994 Belgium and Luxembourg, Brazil, Chile, China, Costa Rica, Ecuador, Estonia, France, Germany, Honduras, Malaysia, Mauritius, Mexico, Peru and the United States.
- 1995 Belgium and Luxembourg, Brazil, Chile, China, Costa Rica, Ecuador, Estonia, France, Germany, Honduras, Malaysia, Mexico, Peru, Thailand and the United States.
- 1996 Belgium and Luxembourg, Bolivia, Brazil, Chile, China, Costa Rica, Ecuador, Estonia, France, Germany, Honduras, Malaysia, Mexico, New Zealand, Peru, Philippines, Sweden and the United States.
- 1997 Belgium and Luxembourg, Bolivia, Brazil, Chile, Costa Rica, Ecuador, Estonia, France, Germany, Lithuania, Mexico, Peru, Philippines, Portugal, Sweden, the United States and the Bolivarian Republic of Venezuela.
- 1998 Belgium and Luxembourg, Bolivia, Brazil, Bulgaria, Chile, China, Costa Rica, Croatia, Ecuador, El Salvador, Estonia, France, Germany, Honduras, Hong Kong (China), Lithuania, Mexico, New Zealand, Peru, Philippines, Portugal, Saudi Arabia, United States and the Bolivarian Republic of Venezuela.
- 1999 Belgium and Luxembourg, Bolivia, Brazil, Bulgaria, Chile, China, Costa Rica, Croatia, Ecuador, El Salvador, Estonia, France, Honduras, Hong Kong (China), Lithuania, Mexico, New Zealand, Peru, Portugal, Saudi Arabia, Singapore, United Republic of Tanzania, the United States and the Bolivarian Republic of Venezuela.
- 2000 Belgium and Luxembourg, Bolivia, Brazil, Bulgaria, Chile, China, Costa Rica, Croatia, Czech Republic, Ecuador, El Salvador, France, Honduras, Hong Kong (China), Kazakhstan, Lithuania, Malaysia, Mexico, Morocco, Peru, Portugal, Singapore, Sweden, United Republic of Tanzania, the United States and the Bolivarian Republic of Venezuela.
- 2001 Armenia, Australia, Belgium and Luxembourg, Bolivia, Brazil, Bulgaria, Chile, Costa Rica, Croatia, Czech Republic, Ecuador, El Salvador, France, Germany, Honduras, Hong Kong (China), Kazakhstan, Latvia, Lithuania, Malaysia, Mexico, Paraguay, Peru, Portugal, Russian Federation, Singapore, Sweden, the United States and the Bolivarian Republic of Venezuela.
- 2002 Armenia, Bolivia, Brazil, Bulgaria, Chile, Costa Rica, Croatia, Cyprus, Ecuador, El Salvador, France, Germany, Honduras, Hong Kong (China), Kazakhstan, Latvia, Lithuania, Mexico, Morocco, Paraguay, Peru, Portugal, Russian Federation, Sweden, United States and the Bolivarian Republic of Venezuela .

2003	Armenia, Bolivia, Brazil, Bulgaria, Chile, Costa Rica, Croatia, Cyprus, Ecuador, El Salvador, France, Germany, Honduras, Hong Kong (China), Kazakhstan, Latvia, Lithuania, Mexico, Paraguay, Peru, Portugal, Sweden and United States.
2004	Bolivia, Brazil, Bulgaria, Chile, Costa Rica, Croatia, Cyprus, Czech Republic, Ecuador, El Salvador, Estonia, Honduras, Hong Kong (China), Kazakhstan, Latvia, Lithuania, Malaysia, Mauritius, Mexico, Paraguay, Peru and the United States.
2005-2006	Brazil, Bulgaria, Chile, Costa Rica, Czech Republic, Ecuador, El Salvador, France, Germany, Honduras, Japan, Kazakhstan, Mexico, Paraguay, Peru and the United States.
2007	Bulgaria, Costa Rica, Czech Republic, El Salvador, Mexico and the United States.

- Inward stock

Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2000 data are based on the national institution. 2001-2007 data are based on the IMF.

- Outward stock

Estimated by accumulating outflows since 1970.

- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1980.
 - ❖ Inward stock from 2000.

- **Papua New Guinea**

- National institution reporting FDI:
 - Bank of Papua New Guinea
- Data source used in the report:

- Inflows

IMF for 1980-1984 and the national institution mentioned above thereafter.

- Outflows

IMF for 1980-1987, proxy for 1993-2001 and the national institution for 1988-1992 and 2002-2007.

Note: Proxy is based on investments reported by the following economies:

1993-1994	Chile and China.
1995	Australia, Chile, China, Fiji, Malaysia and New Zealand.
1996	Australia, Malaysia and New Zealand.
1997-1998	Australia, Malaysia, New Zealand and the United States.
1999	New Zealand.
2000	Australia and the United States.
2001	United States.

- Inward stock

1980-1997 data are based on the national institution. 1998-2007 data are estimated by adding inflows to the 1997 stock.

- Outward stock

Estimated by accumulating outflows since 1977.

- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1995-2005.

- **Paraguay**

- National institution reporting FDI:
 - Banco Central del Paraguay
- Data source used in the report:

- Inflows

The national institution mentioned above.

- Outflows

Proxy for 1985-1989 and 1992-1993 and the national institution thereafter.

Note: Proxy is based on investments reported by the following economies:

1985	Belgium and Luxembourg, Chile, United States and the Bolivarian Republic of Venezuela.
1986	Chile, United States and the Bolivarian Republic of Venezuela.
1987 and 1989	Belgium and Luxembourg.
1988	Belgium and Luxembourg, Chile and France.
1992	Belgium and Luxembourg, Brazil, China and France.
1993	Brazil, China and France.

▪ Inward stock

Data prior to 1995 are estimated by accumulating inflows since 1970. 1995-2007 data are based on the national institution.

▪ Outward stock

Data prior to 1995 are estimated by subtracting outflows from the stock of 1995. 1995-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1990.
- ❖ Inward stock from 1996.

● **Peru**

- National institution reporting FDI:

- Banco Central de Reserva del Perú

- Data source used in the report:

▪ Inflows and Stocks

The national institution mentioned above.

▪ Outflows

Estimates for 1981-1994, 2000, 2002 and 2004-2007, and the national institution for 1995-1999, 2001 and 2003.

- Availability of all FDI flows and stock components:

- ❖ Not available.

● **Philippines**

- National institution reporting FDI:

- Bangko Sentral ng Pilipinas

- Reporting system used:

- ◆ *ITRS* serves as the primary database on the placement and withdrawal of investment in equity capital (including the purchase and sale of condominiums) with funds coursed through the banking system.
- ◆ *Cross Border Transactions Survey* complements ITRS as it captures those transactions coursed through banks abroad and inter-company accounts, both of which are missed out in the ITRS.
- ◆ *BSP Investment Registration Records* serve as the database for non-cash transactions such as technical fees, equipment and debt that are converted to equity. Registration with the BSP of both cash and non-cash investment is optional and the incentive to register lies in the assurance from the banking system of the availability of foreign exchange for repatriation of profit and dividend and capital withdrawal.
- ◆ *External Debt Statistics* serve as the database for inter-company borrowings. The data collection functions under a debt registration system similar to registration of investment. Debt registration is also optional and offers the same incentive as the investment registration system.
- ◆ *Banking Statistics* data source for all investment-related transactions of banks.
- ◆ *Other administrative records* - e.g., financial statements and balance sheets, news articles.

- ◆ *Notes:* * The 5th edition of the Balance of Payments Manual (BPM5) was adopted in 2000 covering data starting 1999. There is a difference in coverage of data on direct investment flows from 1999 onwards compared to those of prior years. In particular, the change in coverage pertains to inter-company loans. From 1999 onwards, direct investment flows include intra-company loans under the "other capital" component of direct investment, as spelled out in the BPM5 manual. Previously, intra-company loans were not part of direct investment but classified under the medium-and long-term loan accounts.
- ◆ *FDI* stock data started only in 2002 when the Bangko Sentral ng Pilipinas (BSP) compiled the international investment position statistics in compliance with the Special Data Dissemination Standard (SDDS) requirement of the IMF.
- Valuation system used:
 - Valuation is a mixture of market price and historical cost depending on the source. Cash transactions based on ITRS are likely to reflect market price while non-cash transactions are likely valued at historical cost particularly machinery and equipment converted to equity.
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
Data prior to 2001 are estimated by accumulating flows since 1970. 2001-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1999.
 - ❖ Inward stock for 2001-2006.

● **Poland**

- National institution reporting FDI:
 - National Bank of Poland
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
IMF for 1980-1985, proxy based on investments reported by Belgium and Luxembourg, France United States for 1990, and the national institution for 1986-1989 and 1991-2007.
 - Inward stock
The national institution. 2007 data is estimated by adding inflows to the stock of 2006.
 - Outward stock
Data prior to 1991 are estimated by subtracting outflows from the stock of 1992. 1994-2006 data are based on the national institution. 2007 data is estimated by adding outflows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1991.
 - ❖ Outflows from 1996.
 - ❖ Inward stock for 1992-2006.
 - ❖ Outward stock for 1996- 2006.

● **Portugal**

- National institution reporting FDI:
 - Banco de Portugal
- Reporting system used:
 - ITRS and surveys for flows.
 - Surveys for Stocks.

- Valuation system used:
 - o Current price for flows.
 - o Market value for stocks.
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
Data prior to 1990 are estimated by subtracting flows from the stock of 1990. 1990-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1980.
 - ❖ Stocks from 1995.

● **Puerto Rico**

- Data source used in the report:
 - Inflows
Proxy and estimates for 2006-7.
Note: Proxy is based on investments reported by the following economies:

1993-1994	Belgium and Luxembourg.
1996 and 2003	Republic of Korea.
1997	Belgium and Luxembourg, Republic of Korea and Sweden.
1998-2000	Belgium and Luxembourg and Sweden.
2001	France and Sweden.
2002	Republic of Korea and Sweden.
2004	Sweden.
2005	Japan and the republic of Korea.
 - Outflows and FDI stocks
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Qatar**

- Data source used in the report:
 - Inflows
OECD for 1980 and 1983-2004, proxy based on investment reported by France, Germany, Japan, Malaysia and the United States for 2005 and by China, Denmark, France, Germany, Japan, Malaysia and the United States for 2006 and estimates for 1981-1982 and 2007.
 - Outflows
Proxy and estimate for 2004-2007.
Note: Proxy is based on investments reported by the following economies:

1980-1981,	
1983 and 1985	United States.
1986	Belgium and Luxembourg and Pakistan.
1987 and 1995	Belgium and Luxembourg, Pakistan and the United States.
1988	Belgium and Luxembourg, France, Pakistan and the United States.
1989	Belgium and Luxembourg, France, Pakistan and Tunisia.
1990	Belgium and Luxembourg, France, Pakistan, Thailand and Tunisia.
1991	Pakistan and Tunisia.
1992	Belgium and Luxembourg, Pakistan and Tunisia.
1993	France and Pakistan.
1994	Belgium and Luxembourg, France and Pakistan.

1996-1997	Belgium and Luxembourg, France, Pakistan and the United States.
1998	Algeria, Pakistan and the United States.
1999-2000	Algeria, France, Pakistan and the United States.
2001	Algeria, Brazil, France, Pakistan and the United States.
2002	France, Pakistan and the United States.
2003	France, Germany, Morocco, Pakistan, Saudi Arabia and the United States.

- Inward stock

Estimated by accumulating inflows since 1970.

- Outward stock

Estimated by accumulating outflows since 1995.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Reunion**

- Data source used in the report:

- Inflows

Proxy.

Note: Proxy is based on investments reported by the following economies:

1990 and 1993-1994	Belgium and Luxembourg.
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1991	Sweden.
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1992, 1998 and 2001-2002	Mauritius.
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1999	Belgium and Luxembourg and Mauritius.
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- Outflows and FDI stocks

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Romania**

- National institution reporting FDI:

- National Bank of Romania

- Reporting system used:

- Surveys for inflows and outward stock.

- ITRS for outflows.

- ITRS and administrative sources for inward stock.

- Valuation system used:

- Book value.

- Data source used in the report:

The national institution mentioned above.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 2003.

- ❖ Outflows for 2005.

- ❖ Inward stock from 1994.

- ❖ Outward stock from 2003.

- **Russian Federation**

- National institution reporting FDI:

- Bank of Russia

- Reporting system used:

- ITRS, surveys (particular enterprises reports compiled in accordance to and the United States GAAP and IFRS) and administrative sources.

- Valuation system used:

- Current price.

- Data source used in the report:

- Flows
The national institution mentioned above.
- Stocks
The national institution. 2007 data is estimated by adding inflows to the 2006 stock.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1997.
 - ❖ Inward stock for 1994-2006.
 - ❖ Outward stock for 1993-2006.
- **Rwanda**
 - National institution reporting FDI:
 - Banque Nationale du Rwanda
 - Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
IMF for 2006-2007.
 - Inward stock
Data prior to 1998 are estimated by subtracting inflows from the stock of 1998. 1998-2007 data are based on the national institution.
 - Outward stock
Not available.
 - Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-1991 and 2001-2006.
- **Saint Helena**
 - Data source used in the report:
 - Inflows
OECD.
 - Outflows and FDI stocks
Not available.
 - Availability of all FDI flows and stock components:
Not available.
- **Samoa**
 - National institution reporting FDI:
 - Central Bank of Samoa
 - Data source used in the report:
 - Inflows
Estimate for 1980-1982 and 1989, OECD for 1983-1988, 1990-1991, 1995-1997, 2000 and 2002-2003, World Bank for 1992-1994, 1998-1999 and 2001 and the national institution mentioned above for 2004-2006. 2007 data is estimated by annualizing the national institution data for the first three quarters of 2007.
 - Outflows
IMF for 2004-2005 and the national institution for 2006. 2007 data is estimated by annualizing the national institution data for the first three quarters of 2007.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Not available.
 - Availability of all FDI flows and stock components:
 - ❖ Not available.
- **São Tomé and Príncipe**

- Data source used in the report:
 - Inflows
OECD for 1987, 1989, 1993 and 1995-1997, IMF on the basis of net direct investment for 1988, IMF for 1998-2007.
 - Outflows
IMF for 2005-2007.
 - Inward stock
Estimated by accumulating inflows since 1987.
 - Inward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Saudi Arabia**

- National institution reporting FDI:
 - Saudi Arabian General Investment Authority (SAGIA)
- Reporting system used:
 - Surveys.
Note: For the first time in 2004, after technical cooperation was given by the Economic and Social Commission for Western Asia (ESCWA) and UNCTAD, a survey on inward FDI was undertaken. Stock data from this survey were used.
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Outflows
Proxy for 1980-1999 and estimates for 2000-2007.
Note: Proxy is based on investments reported by the following economies:

1980, 1982	Brazil, Thailand and the United States.
1981 and 1983	Thailand and the United States.
1984	Brazil, the Netherlands, Thailand and the United States.
1985	Belgium and Luxembourg, Brazil, Netherlands, Pakistan, Thailand and the United States.
1986-1988	Belgium and Luxembourg, Brazil, France, Netherlands, Pakistan, Thailand and the United States
1989-1990	Belgium and Luxembourg, France, Netherlands, Pakistan, Thailand, Tunisia and the United States.
1991-1992	Belgium and Luxembourg, France, Malaysia, Netherlands, Pakistan, Thailand, Tunisia and the United States.
1993	Belgium and Luxembourg, France, Malaysia, Netherlands, Pakistan, Sweden, Thailand, Tunisia and the United States.
1994	Belgium and Luxembourg, France, Kazakhstan, Malaysia, Netherlands, Pakistan, Sweden, Thailand, Tunisia and the United States.
1995	Azerbaijan, Belgium and Luxembourg, France, Kazakhstan, Malaysia, Netherlands, Pakistan, Sweden, Thailand, Tunisia and the United States.
1996	Azerbaijan, Belgium and Luxembourg, France, Japan, Kazakhstan, Malaysia, Netherlands, Pakistan, Sweden, Thailand, Tunisia and the United States.
1997	Azerbaijan, France, Japan, Kazakhstan, Malaysia, Morocco, Netherlands, Pakistan, Sweden, Thailand, Tunisia and the United States.

1998	Azerbaijan, Belgium and Luxembourg, France, Japan, Kazakhstan, Malaysia, Morocco, Netherlands, Pakistan, Sweden, Thailand, Tunisia and the United States.
1999	Azerbaijan, Belgium and Luxembourg, France, Japan, Kazakhstan, Malaysia, Morocco, Netherlands, Pakistan, Sweden, Thailand and Tunisia.

- Inward stock

Data prior to 1993 are estimated by subtracting inflows from the stock of 1993. 1993 and 2000-2007 data are based on the national institution. 1994-1999 data are estimated by subtracting inflows from the stock of 2000.

- Outward stock

Data are based on the accumulation of outflows since 1980.

- Availability of all FDI flows and stock components:

- ❖ Inward FDI from 2007.

- **Serbia and Montenegro**

- National institution reporting FDI:

- National Bank of Serbia up to 2001.

Note: Up until the establishment of the Central Bank of Montenegro, March 15, 2001, the National Bank of Serbia reported FDI statistics for the State Union of Serbia and Montenegro.

From 2002, the two central banks started reporting separate FDI statistics. As of this year, FDI statistics for Serbia and Montenegro are calculated as the sum of data for Serbia, obtained from the National Bank of Serbia, and for Montenegro, obtained from the Central Bank of Montenegro.

The state union effectively came to an end after Montenegro's formal declaration of independence on **June 3, 2006** and Serbia's formal declaration of independence on **June 5**.

- Data source used in the report:

The national institutions mentioned above.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Serbia**

- National institution reporting FDI:

- National Bank of Serbia

- Data source used in the report:

- Flows

The national institution mentioned above.

- Inward stock

Estimated by accumulating inflows since 1997.

- Outward stock

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Seychelles**

- National institution reporting FDI:

- Central Bank of Seychelles

- Reporting system used:

- Administrative sources obtained from the Seychelles Investment Bureau (SIB) and enterprise surveys.

- Valuation system used:

- Book value is the adopted system. However, in some cases, current prices are used for companies that report in this system.

- Data source used in the report:
 - Flows
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Stocks
Data prior to 1990 are estimated by subtracting flows from the stock of 1990. 1990-2006 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1993.

● **Sierra Leone**

- National institution reporting FDI:
 - Bank of Sierra Leone
- Data source used in the report:
 - Inflows
IMF for 1980-1989 and the national institution mentioned above for 1990-2006. 2007 data is estimated.
 - Outflows
Proxy for 1988-1990, 1992-1995, 1999 and 2003, the national source for 2005, IMF for 2006 and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1988	France.
1989	Belgium and Luxembourg and France.
1990 and 1992	Belgium and Luxembourg.
1993-1995	China.
1999	Czech Republic.
2003	Romania.
 - Inward stock
Data prior to 2004 are estimated by subtracting inflows from the stock of 2004. 2004-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2007.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Inflows only for 1980, 1982-1983, 1986-1987 and 2002-2006.
 - ❖ Inward stock for 2004-2006.

● **Singapore**

- National institution reporting FDI:
 - Singapore Department of Statistics
- Reporting system used:
 - Surveys and administrative sources for flows.
 - Surveys for stocks.
Notes: * Prior to 1998 inward stock comprise foreign direct equity investment (i.e. paid-up shares and reserves) only. From 1998 onwards, data incorporate net lending from foreign investors to their affiliates in Singapore.
* Prior to 1990 outward stock comprise paid-up shares of overseas affiliates only. From 1990 onwards, data incorporate reserves of overseas affiliates attributable to their Singapore parent companies. With effect from 1994, data also includes net lending from Singapore companies to their overseas affiliates. The coverage of the survey was also extended to financial institutions (i.e. banks, finance and insurance companies) from 1994 onwards.
- Data source used in the report:
 - Flows
The national institution mentioned above.

- Stocks
The national institution. 2007 data is estimated by adding inflows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1997.
- **Slovakia**
- National institution reporting FDI:
 - National Bank of Slovakia
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
Data prior to 1994 are estimated by subtracting flows from the stock of 1994. 1994-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1995.
 - ❖ Outflows from 1997.
 - ❖ Stocks from 1994.
- **Slovenia**
- National institution reporting FDI:
 - Bank of Slovenia
- Data source used in the report:
 - Flows
The national institution mentioned.
 - Stocks
Data prior to 1994 are estimated by subtracting flows from the stock of 1994. 1994-2006 data are based on the national institution. 2007 data is estimated by adding flows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 2001.
 - ❖ Stocks for 1994-2006.
- **Solomon Islands**
- National institution reporting FDI:
 - Central Bank of Solomon Islands
- Data source used in the report:
 - Inflows
IMF for 1980-1996 and the national institution mentioned above thereafter.
 - Outflows
IMF for 2000 and the national institution thereafter.
 - Inward stock
Estimated by accumulating inflows since 1971.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1998 and 2001-2007.
 - ❖ Outflows for 2003 and 2005-2006.
- **Somalia**
- Data source used in the report:
 - Inflows
OECD for 1980-1981, 1986-1992 and 1998-2004, IMF for 1982-1985, World Bank for 1993-1997 and estimate for 2005-2007.

- Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Availability of all FDI flows and stock components:
 - ❖ Not available.
- **South Africa**
- National institution reporting FDI:
 - South African Reserve Bank
 - Reporting system used:
 - Surveys.
 - Valuation system used:
 - Market prices are used if available; alternatively net asset value is used.
 - Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
The national institution. 2007 data is estimated by adding flows to the 2006 stock.
 - Availability of all FDI flows and stock components:
 - ❖ Stocks for 1980-2006.
- **Spain**
- National institution reporting FDI:
 - Banco de España
 - Reporting system used:
 - ITRS and administrative sources.
 - Valuation system used:
 - Current price for flows.
 - Book value and current price for stock.
 - Data source used in the report:
 - Flows and outward stock
IMF for 1980-1989 and the national institution mentioned above thereafter.
 - Inward stock
The national institution.
 - Availability of all FDI flows and stock components:
 - ❖ Flows from 1995.
 - ❖ Stock from 1992.
- **Sri Lanka**
- National institution reporting FDI:
 - Central Bank of Sri Lanka
 - Data source used in the report:
 - Inflows
The national institution mentioned above. 2007 data is estimated by annualizing the national institution data for the first three quarters of 2007.
 - Outflows
IMF for 1985-1989 and the national institution for 1990-2006. . 2007 data is estimated by annualizing the national institution data for the first three quarters of 2007.
 - Inward stock
1980-1988 and 1997-2006 data are based on the national institution. 1989-1996 data are estimated by adding inflows to the stock of 1988. 2007 data is estimated by adding inflows to the stock of 2006.
 - Outward stock

Estimated by accumulating outflows since 1985.

- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1995-2006.

● Sudan

- National institution reporting FDI:
 - Central Bank of Sudan
- Reporting system used:
 - Administrative sources.
- Valuation system used:
 - Current prices.
- Data source used in the report:
 - Inflows
OECD for 1980-1983, 1986-1988 and 1990-1995, IMF for 1984-1985 and 1989 and the national institution mentioned above for 1996-2007.
 - Outflows
The national institution.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Suriname

- National institution reporting FDI:
 - Centrale Bank van Suriname
- Data source used in the report:
 - Inflows
IMF for 1980-2001 and the national institution mentioned above thereafter.
 - Outward FDI and inward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 2002.

● Swaziland

- National institution reporting FDI:
 - Central Bank of Swaziland
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock
1980 data is estimated by subtracting inflows from the stock of 1981. 1981-1985 data are based on the IMF. 1986-2007 data are based on the national institution.
 - Outward stock
1980 data is estimated by subtracting outflows from the stock of 1981. 1981-1985 data are based on the IMF. 1986-2006 data are based on the national institution. 2007 data are estimated by adding outflows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1980.
 - ❖ Outflows from 1981.
 - ❖ Stocks from 1986.

● Sweden

- National institution reporting FDI:
 - o Statistics Sweden
- Reporting system used:
 - o Surveys.
- Valuation system used:
 - o Current price for flows.
 - o Book value for stocks.
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
Data prior to 1982 are estimated by subtracting flows from the stock of 1982. 1982-2007 data are based on the national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1990.
 - ❖ Inward stock from 1989.
 - ❖ Outward stock from 1990.

● **Switzerland**

- National institution reporting FDI:
 - o Swiss National Bank
- Reporting system used:
 - o Surveys.
- Valuation system used:
 - o Current price for flows.
 - o Book value for stocks.
- Data source used in the report:
 - The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1984.
 - ❖ Stocks from 1983.

● **Syrian Arab Republic**

- National institution reporting FDI:
 - o Central Bank of Syria
- Reporting system used:
 - o Surveys.

Note: For the first time in 2004, after technical cooperation was given by the Economic and Social Commission for Western Asia (ESCWA) and UNCTAD, a survey on inward FDI was undertaken. Stock data from this survey were used.
- Data source used in the report:
 - Inflows
OECD for 1980-1981 and 1983-1992, estimate for 1982 and the national institution mentioned above for 1993-2007.
 - Outflows
Proxy and estimates for 2006-2007.
Note: Proxy is based on investments reported by the following economies:

1984	Germany.
1988-1989	France.
1990 and 1992	Belgium and Luxembourg and France.
1991, 1995 and 1998	Saudi Arabia.
1993	France and the United States.
1994 and 2000-2002	France and Saudi Arabia.

1996-1997	France, Germany and Saudi Arabia.
1999	Morocco and Saudi Arabia.
2003	Bulgaria, Cyprus, France, Romania and Saudi Arabia.
2004-2005	Bulgaria, Cyprus, Morocco, Romania and Saudi Arabia.

- Inward stock

Data prior to 2003 are estimated by subtracting inflows from the stock of 2003. 2003-2007 are based on the national institution.

- Outward stock

Estimated by accumulating outflows since 1984.

- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Taiwan Province of China**

- National institution reporting FDI:
 - Central Bank of China
- Reporting system used:
 - ITRS and administrative sources.
- Valuation system used:
 - Current prices for flows.
 - Book value and Current price for stocks.

Note: * Because the following invested targets are calculated differently, inward stock for (a) listed companies is based on market value and (b) unlisted companies is based on the net worth.

* Outward is based on Book value because Taiwan's companies invest mostly in unlisted companies abroad.

- Data source used in the report:

- Flows

The national institution mentioned above.

- Inward stock

1980-1988 and 2000-2007 data are based on the national institution. 1989-1999 data are estimated by adding inflows to the stock of 1988.

- Outward stock

Data prior to 2000 are estimated by subtracting outflows from the stock of 2000. 2000-2007 are based on the national institution.

- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1984.
 - ❖ Outflows from 1989.
 - ❖ Stocks from 2000.

- **Tajikistan**

- National institution reporting FDI:
 - National Bank of Tajikistan
- Data source used in the report:
 - Inflows

EBRD for 1992-1996 and the national institution mentioned above thereafter . 2007 data is estimated by annualizing the national institution data for the first three quarters of 2007.
 - Outward FDI

Not available
 - Inward stock

Data prior to 2004 are estimated by accumulating inflows since 1992. 2004 data is estimated by subtracting inflows from the stock of 2005. 2005-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the stock of 2006.
- Availability of all FDI flows and stock components:

- ❖ Inflows for 2006.
- ❖ Inward stock for 2005-2006.

● The FYR of Macedonia

- National institution reporting FDI:
 - National Bank of the Republic of Macedonia
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Inward stock
Data prior to 1997 are estimated by subtracting inflows from the stock of 1997. 1997-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
 - Outward stock
The national institution. 2007 data is estimated by adding outflows to the 2006 stock.
- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1997.
 - ❖ Inward stock for 1997-2006.
 - ❖ Outward stock for 1998-2006.

● Thailand

- National institution reporting FDI:
 - Bank of Thailand
- Data source used in the report:
 - Flows
The national institution mentioned above thereafter.
 - Stocks
The national institution. 2007 data is estimated by adding flows to the stock of 2006.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 2001.
 - ❖ Stocks for 2000-2006.

● Timor-Leste

- Data source used in the report:
 - Inflows
OECD for 1992, 1995 and 2001-2006 and estimate for 2007.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1977.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● Tokelau

- Data source used in the report:
 - Inflows
OECD for 1996, 1999-2003 and 2005.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1996.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Tonga**

- National institution reporting FDI:
 - Tonga Department of Statistics
- Data source used in the report:
 - Inflows
IMF for 1984-1993 and the national institution mentioned above thereafter. 2007 data is estimated by annualizing the national institution data for the first two quarters of 2007
 - Outflows
IMF for 1990-1993.
 - Inward stock
Estimated by accumulating inflows since 1977.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Trinidad and Tobago**

- National institution reporting FDI:
 - Central Bank of Trinidad and Tobago
- Data source used in the report:
 - Inflows
The national institution mentioned above and estimate for 2007.
 - Outflows
IMF for 1983-1987, proxy based on investments reported by the United States for 1997-1998, the national institution for 1999-2006 and estimate for 2007.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Estimated by accumulating outflows since 1983.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1980-1985 and 1987-2005.

- **Tunisia**

- National institution reporting FDI:
 - Banque Centrale de Tunisie
- Data source used in the report:

The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Turkey**

- National institution reporting FDI:
 - Central Bank of the Republic of Turkey
- Reporting system used:
 - ITRS for flows - reinvested earnings are obtained through surveys.
 - Surveys for inward stock.
 - Administrative sources for outward stock.
- Data source used in the report:
 - Flows
The national institution mentioned above.
 - Stocks
Data prior to 2000 are estimated by subtracting flows from the stock of 2000. 2000-2007 data are based on the national institution.

- Availability of all FDI flows and stock components:
 - ❖ Inflows from 2002.
 - ❖ Inward stock form 2001.

- **Turkmenistan**

- Data source used in the report:
 - Inflows
EBRD for 1993-1995 and 1998-2007 and IMF for 1996-1997.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1993.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Turks and Caicos Islands**

- Data source used in the report:
 - Inflows
OECD for 1983-1984, 1986-1989, 1992-1993, 1995-1998, 2000 and 2002-2006, proxy based on investments reported by Portugal for 1994 and by the Czech Republic for 1999 and estimate for 2007.
 - Outflows
Proxy and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1994	Belgium and Luxembourg and France.
1995, 1997 and 2000	Estonia.
1996	France and Portugal.
1998 and 2003	Portugal.
1999 and 2002	Estonia and Portugal.
2001	Estonia, Germany and Portugal.
2004	Portugal and Romania.
2005	Bulgaria, France and Romania.
2006	Bulgaria and Romania.
 - Inward stock
Estimated by accumulating inflows since 1983.
 - Outward stock
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Tuvalu**

- Data source used in the report:
 - Inflows
OECD for 1994, 1996, 1998-1999 and 2001-2006, proxy based on investments reported by Belgium and Luxembourg for 2000 and estimate for 2007.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1994.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

- **Uganda**

- National institution reporting FDI:

- Bank of Uganda
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Current prices.
- Data source used in the report:
 - Inflows
OECD for 1980, 1982, 1985 and 1988-1990 and the national institution mentioned above thereafter.
 - Inward stock
Data prior to 1999 are estimated accumulating inflows since 1970. 1999-2007 data are based on the national institution.
 - Outward FDI
Not available.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1993-1995 and 1997-2007.
 - ❖ Inward stock from 1999.

● **Ukraine**

- National institution reporting FDI:
 - National Bank of Ukraine
- Data source used in the report:
The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Inward FDI from 2002.
 - ❖ Outward stock from 2004.

● **United Arab Emirates**

- National institution reporting FDI:
 - Central Bank of the United Arab Emirates
- Data source used in the report:
 - Inflows
OECD for 1980-2002, the national institution mentioned above for 2003-2006 and estimate for 2007.
 - Outflows
Proxy for 1980-2002, the national institution for 2003-2006 and estimate for 2007.
Note: Proxy is based on investments reported by the following economies:

1980-1984	United States.
1985-1987	Belgium and Luxembourg, Netherlands, Thailand and the United States.
1988	Belgium and Luxembourg, France, Netherlands, Thailand and the United States.
1989	Belgium and Luxembourg, China, France, Netherlands, Thailand and the United States.
1990	Belgium and Luxembourg, China, France, Thailand and the United States.
1991	Belgium and Luxembourg, France, Malaysia, Thailand and the United States.
1992	Belgium and Luxembourg, China, France, Malaysia, Thailand and the United States.
1993	Belgium and Luxembourg, China, France, Malaysia, Netherlands, Thailand and the United States.
1994	Belgium and Luxembourg, China, France, Malaysia, Netherlands, Saudi Arabia and the United States.

1995	Bangladesh, Belgium and Luxembourg, China, France, Japan, Malaysia, Pakistan, Portugal, Saudi Arabia and the United States.
1996	Azerbaijan, Bangladesh, Belgium and Luxembourg, France, Malaysia, Morocco, Pakistan, Portugal, Saudi Arabia and the United States.
1997	Azerbaijan, Bangladesh, Belgium and Luxembourg, France, Kazakhstan, Malaysia, Mauritius, Morocco, Netherlands, Pakistan, Portugal, Saudi Arabia and the United States.
1988	Azerbaijan, Bangladesh, Belgium and Luxembourg, France, Japan, Kazakhstan, Malaysia, Mauritius, Morocco, Netherlands, Pakistan, Portugal, Saudi Arabia and the United States.
1999	Azerbaijan, Bangladesh, Belgium and Luxembourg, France, Kyrgyzstan, Malaysia, Mauritius, Netherlands, Pakistan, Portugal, Saudi Arabia, Sweden and the United States.
2000	Azerbaijan, Bulgaria, France, Kazakhstan, Kyrgyzstan, Malaysia, Mauritius, Morocco, Netherlands, Pakistan, Portugal, Saudi Arabia, Sweden and the United States.
2001	Australia, Azerbaijan, Belgium and Luxembourg, Brazil, Bulgaria, France, Germany, Kazakhstan, Kyrgyzstan, Malaysia, Mauritius, Morocco, Netherlands, Pakistan, Sweden and the United States.
2002	Australia, Azerbaijan, Belgium, Brazil, Bulgaria, France, Germany, Kazakhstan, Kyrgyzstan, Malaysia, Mauritius, Morocco, Netherlands, Pakistan, Sweden and the United States.

- Inward stock

Estimated by accumulating inflows since 1970.

- Outward stock

Estimated by accumulating outflows since 1980

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **United Kingdom**

- National institution reporting FDI:

- National Statistics Office of the United Kingdom

- Data source used in the report:

- Inflows

IMF for 1980-1984 and the national institution mentioned above thereafter.

- Outflows and Stocks

The national institution.

- Availability of all FDI flows and stock components:

- ❖ Inflows from 1984.
 - ❖ Outflows from 1990.
 - ❖ Stocks from 1993.

- **United Republic of Tanzania**

- National institution reporting FDI:

- Bank of Tanzania

- Data source used in the report:

- Inflows

OECD for 1980-1989 and the national institution mentioned above thereafter.

- Outflows

Proxy and estimate for 2007.

Note: Proxy is based on investments reported by the following economies:

1994	Belgium and Luxembourg and China.
1996	Belgium and Luxembourg.
1997	France and Germany.

1998 and 2003	Germany.
2001	Australia and Germany.
2002	Sweden.
2005-2006	China, Germany, Sweden and the United States.

- Inward stock

Data prior to 1995 are estimated by subtracting inflows from the stock of 1995. 1995-2007 data are based on the national institution.

- Outward stock

Not available.

- Availability of all FDI flows and stock components:
 - ❖ Inflows from 1999.
 - ❖ Inward stock from 1995.

- **United States**

- National institution reporting FDI:
 - Bureau of Economic Analysis, United States Department of Commerce
- Reporting system used:
 - Surveys.
- Valuation system used:
 - Data on FDI used in this Report do not include current cost adjustments, in other words they are on a historical-cost basis.
 - The Bureau of Economic Analysis prepares estimates of the positions that are valued on three bases—historical cost, current cost, and market value. Unlike the positions on a current-cost and market-value basis, the historical-cost position is not ordinarily adjusted to account for changes in the replacement cost of the tangible assets of affiliates or in the market value of foreign parent companies' equity in United States' affiliates.
- Data source used in the report:
 - The national institution mentioned above.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1980.

- **Uruguay**

- National institution reporting FDI:
 - Banco Central del Uruguay
- Data source used in the report:
 - Inflows
IMF for 1980-1981 and 1986-1988, IMF on the basis of net direct investment for 1982-1985, OECD for 1989-1992 and the national institution mentioned above thereafter.
 - Outflows
IMF for 1982-1988 and the national institution thereafter.
 - Inward stock
Data prior to 1999 are estimated by subtracting inflows from the stock of 1999. 1999-2000 data are based on the IMF. 2001-2006 data are based on the national institution. 2007 data is estimated by adding inflows to the 2006 stock.
 - Outward stock
Data prior to 1996 are estimated by subtracting outflows from the stock of 1996. 1996-1999 and 2001-2006 data are based on the national institution. 2000 data is estimated by subtracting outflows from the stock of 2001. 2007 data is estimated by adding outflows to the 2006 stock.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1986-1988, 1996-1997 and 2001-2007.

- **Uzbekistan**

- Data source used in the report:
 - Inflows
EBRD.
 - Outward FDI
Not available.
 - Inward stock
Estimated by accumulating inflows since 1992.
- Availability of all FDI flows and stock components:
 - ❖ Not available.

● **Vanuatu**

- National institution reporting FDI:
 - Reserve Bank of Vanuatu
- Data source used in the report:
 - Inflows
OECD for 1980-1981, IMF for 1982- 2001 and the national institution mentioned above thereafter.
 - Outward FDI
The national institution.
 - Inward stock
Estimated by accumulating inflows since 1971.
- Availability of all FDI flows and stock components:
 - ❖ Inflows for 1982-1987, 1990 and 2002-2007.
 - ❖ Outflows from 2002.
 - ❖ Not available for stocks.

● **Venezuela, Bolivarian Republic of**

- National institution reporting FDI:
 - Banco Central de Venezuela
- Data source used in the report:
 - Inward FDI
The national institution mentioned above.
 - Outflows
Proxy based on investments reported by Brazil, Chile, Peru and the United States for 1980-1981, estimate for 1983 and the national institution for 1982 and 1984-2007.
 - Outward stock
The national institution.
- Availability of all FDI flows and stock components:
 - ❖ Flows from 1994.
 - ❖ Inward stocks from 1997.
 - ❖ Outward stock from 1996.

● **Viet Nam**

- National institution reporting FDI:
 - State Bank of Viet Nam
- Data source used in the report:
 - Inflows
Estimate for 1980, 1983-1984 and 1987, OECD for 1981-1982, 1985-1986 and 1988-1989, the national institution mentioned above for 1990-1994 and ASEAN secretariat for 1995-2007.
 - Outflows
IMF.
 - Inward stock

Data prior to 1995 are estimated by subtracting inflows from the stock of 1995. 1995-2002 data are based on the national institution. 2003-2007 data are estimated by adding inflows to the 2002 stock.

- Outward stock

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Wallis and Futuna Islands**

- Data source used in the report:

- Inflows

Proxy based on investments reported by Belgium and Luxembourg for 1993 and OECD for 1998-1999 and 2006.

- Outflows and FDI stocks

Not available.

- Availability of all FDI flows and stock components:

- ❖ Not available.

- **Yemen**

- National institution reporting FDI:

- o Central Bank of Yemen

- Data source used in the report:

- Inflows

IMF for 1980-1987 and 1990-1994, OECD for 1988-1989, the national institution mentioned above for 1995-2006 and estimate for 2007.

- Outflows

IMF for 1982-1986, proxy for 1993-2005 and estimate for 2006-2007.

Note: Proxy is based on investments reported by the following economies:

1993 Belgium and Luxembourg.

1994, 1996-1997

and 2001-2003 France and Saudi Arabia.

1995 France.

1998-1999 Saudi Arabia and the United States.

2000 France, Saudi Arabia and the United States.

2004 Romania and Saudi Arabia.

2005 France, Saudi Arabia and the United States.

- Inward stock

Data prior to 1990 are estimated by subtracting inflows from the stock of 1990. 1990-2002 data are based on the national institution. 2003-2006 data are based on the IMF. 2007 is estimated by adding inflows to the 2006 stock.

- Outward stock

Estimated by accumulating outflows since 1982.

- Availability of all FDI flows and stock components:

- ❖ Inflows for 1999.

- **Zambia**

- National institution reporting FDI:

- o Zambia Investment Center

- o Bank of Zambia

- Data source used in the report:

- Inflows

IMF for 1980-1989, World Bank for 1992 and the national institutions mentioned above for 1990-1991 and 1993-2007.

- Outward FDI

- Not available.
- Inward stock
Estimated by accumulating inflows since 1970.
- Availability of all FDI flows and stock components:
- ❖ Not available.
- **Zimbabwe**
- National institution reporting FDI:
- Reserve Bank of Zimbabwe
- Data source used in the report:
- Flows
The national institution mentioned above.
 - Inward stock
Estimated by accumulating inflows since 1970.
 - Outward stock
Estimated by accumulating outflows since 1983.
- Availability of all FDI flows and stock components:
- ❖ Not available.

C. Data revisions and updates

All FDI data and estimates in *WIR* are continuously revised. Because of ongoing revisions, FDI data reported in *WIR* may differ from those reported in earlier Reports or other publications of UNCTAD or any other international or regional organizations. In particular, recent FDI data are being revised in many economies according to the fifth edition of the *Balance of Payments Manual of the IMF*. Because of this, the data reported in last year's Report may be completely or partly changed in this Report.

D. Data verification

In compiling data for this year's Report, requests were made to national official sources of all economies for verification and confirmation of the latest data revisions and accuracy. In addition, websites of national official sources were consulted. This verification process continued until 4 July 2008. Any revisions made after this process may not be reflected in the Report. Below is a list of economies for which data were checked using either of these methods. For the economies which are not mentioned below, the UNCTAD secretariat could not have the data verified or confirmed by their respective governments.

Communiqué

Number of countries: 142

Afghanistan, Albania, Algeria, Angola, Argentina, Armenia, Aruba, Austria, Bahamas, Bahrain, Bangladesh, Banque des Etats de l'Afrique Centrale (Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon), Banque Centrale de l'Afrique de l'Ouest (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo), Belarus, Belgium, Belize, Bermuda, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Brunei Darussalam, Bulgaria, Cambodia, Canada, Cape Verde, Chile, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominican Republic, Eastern Caribbean Central Bank (Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines), Egypt, El Salvador, Estonia, Fiji, Finland, Germany, Ghana, Greece, Guatemala, Guyana, Haiti, Honduras, Hong Kong (China), Hungary, India, Indonesia, Islamic Republic of Iran, Iraq, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Kenya, Republic of Korea, Kuwait, Kyrgyzstan, Latvia, Lebanon, Lesotho, Libyan Arab Jamahiriya, Lithuania, Luxembourg, Macao (China), Malawi, Malaysia, Maldives, Malta, Mauritius, Mexico, Republic of Moldova, Montenegro, Morocco, Mozambique, Namibia, Netherlands, Netherlands Antilles, Nicaragua, Norway, Oman, Pakistan, Palestinian Territory, Paraguay, Peru, the Philippines, Poland, Portugal, Romania, Russian Federation, Rwanda, Saudi Arabia, Serbia, Seychelles, Sierra Leone, Singapore, Slovenia, South Africa, Spain, Suriname, Swaziland, Sweden, Switzerland, Syrian Arab Republic, Taiwan Province of China, the FYR of Macedonia, Thailand, Trinidad and Tobago, Tunisia, Turkey, Uganda, Ukraine, United Republic of Tanzania, Vanuatu, the Bolivarian Republic of Venezuela, Zambia and Zimbabwe

Web sites consulted in the preparation of WIR08

Number of countries: 170

Afghanistan, Albania, Angola, Argentina, Armenia, Aruba, Australia, Austria, Azerbaijan, Bahamas, Bahrain, Bangladesh, Banque des Etats de l'Afrique Centrale (Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon), Banque Centrale des Etats de l'Afrique de l'Ouest (Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo), Banque des Etats de l'Afrique Centrale (Cameroon, Central African Republic, Chad, Congo, Equatorial Guinea and Gabon), Barbados, Belarus, Belgium, Belize, Bermuda, Bhutan, Bolivia, Bosnia and Herzegovina, Botswana, Brazil, Bulgaria, Burundi, Canada, Cape Verde, Chile, China, Colombia, Comoros, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Djibouti, Dominican Republic, Eastern Caribbean Central Bank (Anguilla, Antigua and Barbuda, Dominica, Grenada, Montserrat, Saint Kitts and Nevis, Saint Lucia and Saint Vincent and the Grenadines), Ecuador, Egypt, El Salvador, Estonia, Ethiopia, Fiji, Finland, France, Gambia, Georgia, Germany, Ghana, Guinea, Greece, Haiti, Honduras, Hong Kong (China), Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Republic of Korea, Kyrgyzstan, Latvia, Lao People's Democratic Republic, Lebanon, Lesotho, Libyan Arab Jamahiriya, Lithuania, Luxembourg, Macao (China), Madagascar, Malaysia, Maldives, Malta, Mauritania, Mauritius, Mexico, Republic of Moldova, Mongolia, Montenegro, Morocco, Mozambique, Namibia, Nepal, Netherlands, Netherlands Antilles, New Zealand, Nigeria, Norway, Oman, Pakistan, Palestinian Territory, Panama, Papua New Guinea, Paraguay, Peru, the Philippines, Poland, Portugal, Romania, Russian Federation, Rwanda, Samoa, Serbia, Seychelles, Singapore, Slovakia, Slovenia, Solomon Islands, South Africa, Spain, Sri Lanka, Sudan, Sweden, Switzerland, Syrian Arab Republic, Taiwan Province of China, Tajikistan, the FYR of Macedonia, Thailand, Tonga, Tunisia, Turkey, Uganda, Ukraine, United Arab Emirates, the United Kingdom, the United States, United Republic of Tanzania, Uruguay, Vanuatu, the Bolivarian Republic of Venezuela, Yemen and Zambia

E. Definitions and sources of the data in annex tables B.3

Annex table B.3 shows the ratio of inward and outward FDI flows to gross fixed capital formation and inward and outward FDI stock to GDP. All of these data are in current prices.

The data on GDP were obtained from the UNCTAD *GlobStat* database, the IMF's CD-ROM on *International Financial Statistics*, June 2008 and the IMF's *World Economic Outlook*, April 2008. For some economies, such as Taiwan Province of China, data are complemented by official sources.

The data on gross fixed capital formation were obtained from the UNCTAD *GlobStat* database and IMF's CD-ROM on *International Financial Statistics*, June 2008. For some economies, for which data are not available for the period 1980-2007, or part of it, data are complemented by data on gross capital formation. These data are further complemented by data obtained from: (i) national official sources; and (ii) World Bank data on gross fixed capital formation or gross capital formation, obtained from *World Development Indicators Online*.

Figures exceeding 100% may result from the fact that, for some economies, the reported data on gross fixed capital formation do not necessarily reflect the value of capital formation accurately, and that FDI flows do not necessarily translate into capital formation.

Data on FDI are from annex tables B.1-B.2. Longer time-series data are available on the WIR home page, www.unctad.org/wir or the FDI statistics home page, www.unctad.org/fdistatistics.

F. Definitions and sources of the data on cross-border M&As in annex tables B.4-B.7

FDI is a balance-of-payments concept involving the cross-border transfer of funds. Cross-border M&As statistics shown in the Report are based on information reported by Thomson Financial. Such M&As conform to the FDI definition as far as the equity share is concerned. However, the data also include purchases via domestic and international capital markets, which should not be considered as FDI flows. Although it is possible to distinguish types of financing used for M&As (e.g. syndicated loans, corporate bonds, venture capital), it is not possible to trace the origin or country-sources of the funds used. Therefore, the data used in the Report include the funds not categorized as FDI. The UNCTAD database on cross-border M&As contains information on both ultimate and immediate host (target) and acquiring (home) country. From WIR08, all tables relating to cross-border M&As are tabulated based on the ultimate country principle unless otherwise specified. Thus, for example, a deal in which an Argentine domestic company acquired a foreign company operating in Argentina, this deal is recorded in such a manner that Argentina is the acquiring country and the foreign country is the target country.

FDI flows are recorded on a net basis (capital account credits less debits between direct investors and their foreign affiliates) in a particular year. On the other hand, M&A data are expressed as the total transaction amount of particular deals, and not as differences between gross acquisitions and divestment abroad by firms from a particular country. Transaction amounts recorded in the UNCTAD M&A statistics are those at the time of closure of the deals, and not at the time of announcement. The M&A values are not necessarily paid out in a single year.

Cross-border M&As are recorded in both directions of transactions. That is, when a cross-border M&A takes place, it registers as both a sale in the country of the target firm and as a purchase in the home country of the acquiring firm (annex tables B.4 and B.5). Data showing cross-border M&A activities on an industry basis are also recorded as sales and purchases. Thus, if a food company acquires a chemical company, this transaction is recorded in the chemical industry in the columns on M&As by industry of seller, it is also recorded in the food industry in the columns on M&As by industry of purchaser (annex tables B.6 and B.7).

Longer time-series data are available on the WIR home page, www.unctad.org/wir or the FDI statistics home page, www.unctad.org/fdistatistics.

G. Definitions and sources of the data on operations of foreign affiliates in annex tables B.8-B.19

These annexes present selected data (number of firms, assets, number of employees, wages and salaries, sales, value added - gross product, profits, export, import, R&D expenditure, employment in R&D and royalty receipts and payments) on the inward and outward operations of foreign affiliates as follows:

- Inward operations refer to the activities of foreign affiliates in the host economy (business enterprises in which there is a FDI relationship in the host country).
- Outward operations refer to the activities of foreign affiliates of a home-based TNCs abroad (business enterprises located abroad in which the home-based TNC has a FDI relationship).

UNCTAD regularly collects published and unpublished national official data on the operations of foreign affiliates and TNCs directly from central banks, statistical offices or national authorities on a disaggregated basis for its FDI/TNC database (www.unctad.org/fdistatistics) and its publication *World Investment Directory*.

Longer time-series data are available on the WIR home page, www.unctad.org/wir or the FDI statistics home page, www.unctad.org/fdistatistics.

Notes

¹ In some countries, an equity stake of other than 10% is still used. In the United Kingdom, for example, a stake of 20% or more was the threshold used until 1997.

² This general definition of FDI is based on OECD, *Detailed Benchmark Definition of Foreign Direct Investment*, third edition (OECD 1996) and International Monetary Fund, *Balance of Payments Manual*, fifth edition (IMF 1993).

³ International Monetary Fund, op. cit., p. 40.

⁴ Includes Australia, Austria, Belgium, Canada, Commission of the European Communities, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom and United States.