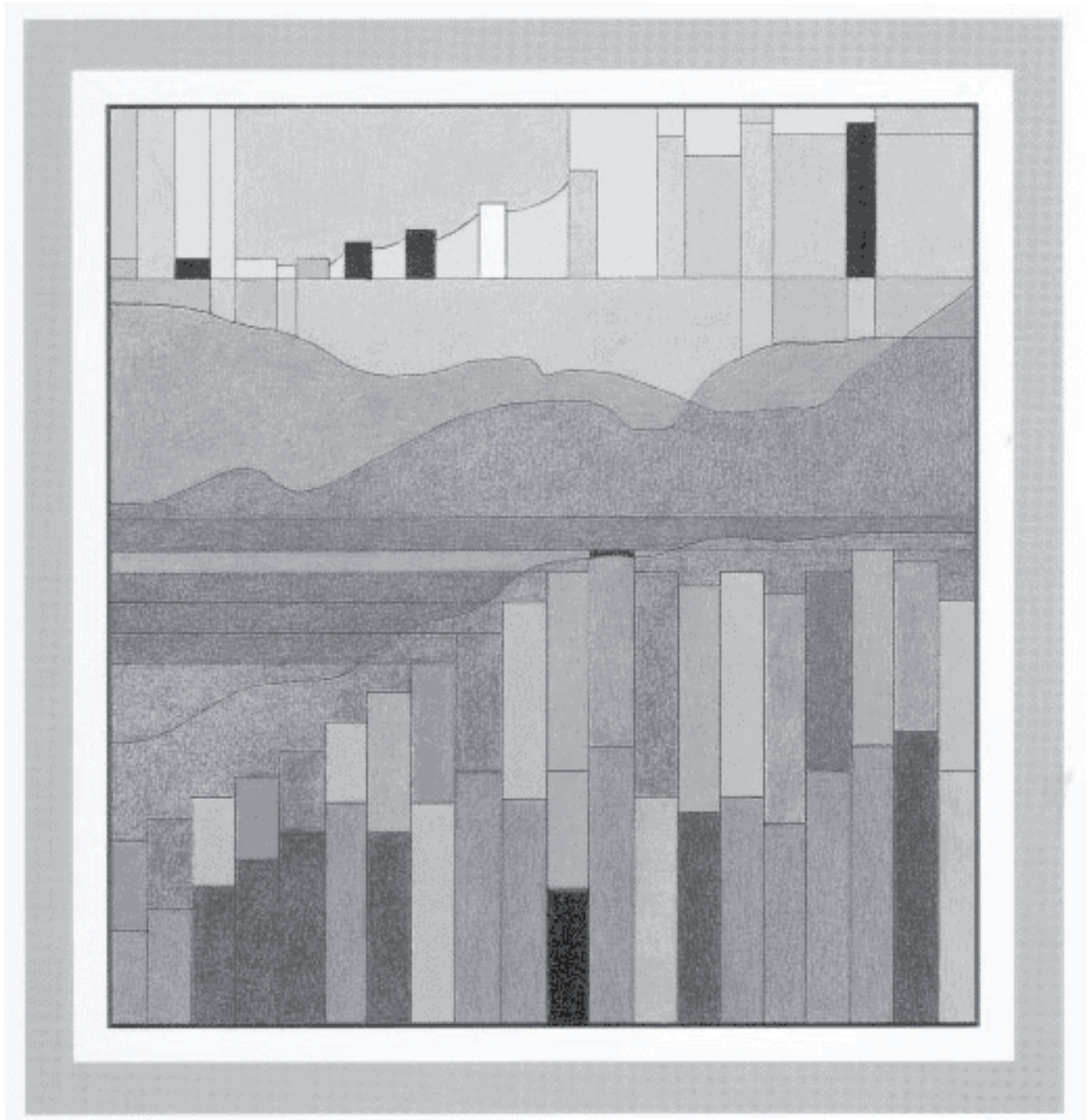


**RETHINKING DEVELOPMENT STRATEGIES: SOME
LESSONS FROM EAST ASIAN EXPERIENCE**



Introduction

Rapid growth, rising living standards and increased international competitiveness in the economies of East Asia have caught the attention of policymakers and researchers in other developing regions, as well as in the developed world. A broad debate has consequently opened up on the lessons that can be drawn for meeting the wider challenges of economic development. The region's performance relative to other regions can no longer be regarded as a passing phenomenon. But how such high and sustained rates of growth have been achieved among a large group of economies is still the subject of debate. To date opinion has been divided. On one view, the experience confirms the case for "getting prices right" through the free play of market forces. On another, it points to the limits of price signals as a guide to the process of capital accumulation and technological catching-up, and confirms the benefits to be drawn from appropriate forms of government intervention. Both these interpretations have tended to pose stark choices for other developing countries seeking to emulate the East Asian example: the market versus the State; inward- versus outward-oriented development; investment or exports as the engine of growth.

This issue of *TDR* pursues a different line. In *TDR 1994* the analysis focused on the links between capital accumulation, technological progress and economic growth in the first-tier East Asian newly industrializing economies (NIEs) - Hong Kong, Republic of Korea, Singapore and Taiwan Province of China. It examined possible conflicts as well as complementarities between the State and the market in evolving government-business relations built around a profit-investment nexus animated by strategic policy interventions and appropriate institutions. Building on that research, this year's Report emphasizes the interdependence of exports and investment and its role in accelerating structural change and industrial growth. In particular, it considers the extent to which mutually reinforcing regional trade and investment

linkages have added a distinct dimension to the East Asian growth experience. Following the lead of the earlier Report, it also examines the role of policies in linking exports to investment, as well as in upgrading and diversifying export structures. In this context, the complementarity between effective export promotion measures and import substitution policies is examined. Differences among countries in the choice and effectiveness of policies are explored, as well as those within the region between the first-tier NIEs and the second-tier ones (Indonesia, Malaysia and Thailand).

From this perspective the issue of replicating East Asian success outside the region comes into sharper focus. Broadly speaking, outward-oriented development is a dynamic process where investment, imports, exports and industrial upgrading are closely intertwined. Such a process is consistent with varying degrees of import substitution and export orientation, and with concentration on different products and markets. There is thus considerable room for manoeuvre in a pragmatic approach to development policy in a globalizing world, which can accommodate differences in levels of industrial development, natural resource endowments and macroeconomic constraints.

Replication by a large number of countries not only requires the successful pursuit of trade, industrial and technology policies by developing countries, but also open markets in the North. This in turn will depend upon finding solutions to the severe labour market problems which continue to beset many advanced industrial economies. As last year, this year's Report rejects the claim, which has become louder over the past year, that growing import penetration by developing countries of their domestic markets is to blame for these problems, assesses the scope for increased North-South trade, and argues that outward-oriented development in the South and expansionary policies in the North provide the basis for a new global policy dialogue.

However, there are also new challenges confronting policymakers in developing countries seeking to emulate the East Asian type of export-oriented industrialization. In the first place, compared to the first-tier NIEs, they can certainly expect closer surveillance of their domestic trade and investment policies, which will be subject to WTO disciplines. The Report assesses from this standpoint the new trading environment and the scope for permissible policy alternatives for promoting industrialization in the South. Moreover, given the uncertain economic prospects in the advanced industrial economies, the regional success of East Asia not only encourages a fresh look at the potential gains from South-South economic cooperation, but also widens the opportunities for such cooperation.

Chapter I examines the regional dimension of East Asian industrialization and growth, concentrating on trade and investment links among countries. Particular attention is paid to macro-economic pressures and government policies in

shaping the regional integration process. The chapter also assesses the implications of recent shifts in competitiveness for growth and employment in Japan, as well as for industrialization and development of the developing countries of the region. Chapter II seeks to account for the success of the East Asian economies in linking a rapid pace of investment and industrial upgrading to exports. The role of trade and industrial policies in animating an investment-export nexus is emphasized, and differences in export performance among economies in the region are related to differences in policy orientation, including policies relating to FDI and TNCs. The final chapter examines the issue of replicating the East Asian export performance on a large scale. In particular, the danger of a “fallacy of composition” that may arise from widespread efforts to promote low-skill manufactured exports is examined, as well as the potential problems such exports might pose for advanced economies. An assessment is also made of whether the post-Uruguay Round trading regime precludes the policies that underpinned export success in East Asia. ■

INTEGRATION AND INDUSTRIALIZATION IN EAST ASIA

A. The flying geese paradigm

During the past two decades, the economic performance of Japan and a small group of rapidly growing East Asian countries, including the Republic of Korea, Taiwan Province of China, Hong Kong and Singapore (collectively identified as the first-tier newly industrializing economies, NIEs) has attracted considerable attention. More recently, strong growth in a second tier of (South-East) Asian industrializing countries (Indonesia, Malaysia and Thailand) and the re-emergence of China in the world economy have added weight to the idea of a wave of industrial development spreading across a much wider region and focused attention on East Asia¹ as a new growth pole in the world economy.

This regional pattern of industrialization, which has not only proceeded in waves but also progressively involved a regional division of labour based on an industrial and locational hierarchy, has been dubbed as a “flying geese development paradigm.”² This paradigm provides a description of the life-cycles of various industries in the course of economic development and of the relocation of industries from one country to another through trade and foreign direct investment (FDI) in response to shifts in competitiveness.³ However, there is more at stake in the flying geese paradigm than pure description. The significance of the paradigm lies in its analysis of the linkages between the different countries in a regional hierarchy, the mechanisms by which development is transmitted from one country to another, the re-

spective roles of policy and markets in this process, and the stability and sustainability of the process itself.

In this process, trade is the most important vehicle for transferring new goods and technology across countries. Imports from the more advanced countries (*senshinkoku*) would allow new goods to be introduced into the “follower” countries (*koshinkoku*). They would also allow the transfer of technology and capital goods needed for their subsequent production in the “follower” economy and, eventually, for their export to other countries. Finally, when a country loses competitiveness in a particular product, its domestic production is phased out and replaced by imports from the “followers”, which have succeeded in building up a competitive industry in that product. Thus, this sequence combines the life-cycle of a particular product with a dynamic process of shifting comparative advantage. The outcome is a constantly evolving regional division of labour within a group of economies all striving for the common goal of industrialization.

More recently emphasis has been placed on FDI as an additional channel for “recycling comparative advantage”. On this view, FDI both shapes and is shaped by the evolution of comparative advantage between the follower countries and the lead country. Domestic investment withdraws from those sectors suffering from loss of competitiveness (e.g. labour-intensive sectors such as textiles

Box 4**THEORIES OF TRADE AND FOREIGN DIRECT INVESTMENT**

There has never been a happy marriage between the theory of international trade and the analysis of the determinants of FDI. Although trade and FDI are often linked through their balance-of-payments effects, such a relationship is a simple accounting one, and does not provide an integrated theory of overall competitiveness. While the standard theory of international trade seeks to explain comparative advantage in terms of inter-country differences, such as in factor endowments, most of the literature on the determinants of FDI concentrates on firm-specific, microeconomic factors. The two approaches are not always consistent; the theory of comparative advantage is based on the assumption of perfect competition, whereas FDI is often explained in terms of market imperfections or failures. Even where a more interactive approach to FDI has been attempted, analysis has concentrated narrowly on corporate strategy; thus, it provides little insight into how macroeconomic factors interact in the decisions on locating production globally.

On the other hand, the neoclassical theory of capital movements based on international differences in thrift and productivity makes no explicit reference to the theory of comparative advantage. Nor does it contribute to the understanding of the determinants of FDI because it leaves open the allocation of excess savings between portfolio and productive investment. Finally, the link between a country's domestic investment and its FDI is not clear. The conventional approach to international capital flows sees no trade-off between the two since it treats thrift and productivity as independent variables. By contrast, where FDI is treated as a substitute for exports, there is an implicit trade-off between domestic capital formation and FDI.

One way of combining the theory of trade with the theory of FDI is to view trade and FDI as alternative ways for a firm to supply foreign markets. In deciding between the two, the firm would naturally compare the costs of investing and operating at home with those of investing and operating abroad. Thanks to the seminal contribution by Hymer¹, it is now generally recognized that foreign firms face certain disadvantages compared to local firms and that in order to be able to compete with the latter they consequently need to enjoy certain comparative advantages based on unmarketable, owner-specific assets such as superior technology and product design and managerial, marketing and distributional skills. In the absence of a market to price these knowledge- and information-based assets, or when market solutions such as licensing suffer from inefficiencies, the production process will need to be organized through subsidiaries in order to capture the rents from firm-specific assets.²

Certainly, in order for a firm to invest abroad and compete with local firms, the comparative advantages arising from such firm-specific factors need to exceed the additional costs of operating abroad. However, this is not a sufficient basis for determining whether it is in the interest of the firm to supply foreign markets from its plants abroad rather than at home. The basis for such a decision is provided by the product-cycle hypothesis³, which sees trade and FDI as successive stages in production for foreign markets. First, the firm innovates and develops a new product within the market, to satisfy domestic demand. Then output of the product is increased as conditions in export markets become favourable for the product concerned. Eventually, the firm is forced to invest abroad as the knowledge embodied in the goods produced is increasingly absorbed by foreign producers. In other words, the firm will decide to invest abroad when trade no longer allows it to capture the rents from its intrinsic assets.

However, none of these intra-firm considerations can explain the evolution of trade and FDI at the aggregate level. Different firms and industries will reach different stages of production at different times, and there is no reason to expect them to move simultaneously from the domestic market to exports, and from exports to FDI. In other words, these theories do not provide much insight into the behaviour of trade and FDI throughout the industrialization process. By the same token, any generalization about the overall pattern and evolution of trade and FDI in industrial societies needs to rely on common, macroeconomic factors that generate more or less uniform influences across the industry. Both the flying geese paradigm and the "four stages" model of Roemer discussed in section C of this chapter aim at such a generalization.

Box 4 (concluded)

Such macroeconomic influences may arise from a number of factors, including a sustained rise in labour costs relative to competitors and/or a permanent appreciation of the currency. Perhaps an equally important factor is the restrictions faced in exporting to foreign markets. Clearly, both tariff and non-tariff barriers to trade will open up the potential for FDI as a means of circumventing the barriers. If a country faces greater barriers to its exports as its share in world trade increases, it is to be expected that the pace of its exports will slow down and that of FDI will take off. Such an outcome is probable when the rising trade share is associated with a balance-of-payments surplus and when the major trading partners suffer from chronic demand deficiency and high and rising unemployment. While historically this situation has not always prevailed, the post-1980 increase in Japan's share in world exports has certainly taken place in the context of slow growth and increased unemployment in its major trading partners in Europe and elsewhere. Under these conditions the factors that tend to restrict exports also provide additional incentives for FDI; from the trading partners' point of view, while imports tend to reduce employment, FDI creates additional jobs.

It should, however, be pointed out that, even when an inverse correlation is observed between exports and FDI at the industry or the aggregate level, it is not always possible to conclude that the latter replaces the former. Exports may simply be constrained by rising costs, currency appreciation or increased protectionism, while firms respond by investing abroad. Thus, the choice is not between exporting and investing abroad, but between FDI and losing an important part of the market. Moreover, investment abroad could prevent further deterioration in the external position of the country if it allows the firm to develop and become more competitive in the home market or third markets vis-à-vis other foreign firms.⁴ Finally, FDI may even help improve the exports of the home country through the provision of, first, capital goods and, then, intermediate inputs to foreign subsidiaries of parent companies. In such cases, one may or may not observe an inverse relationship between FDI and trade, but in any case such a relationship does not necessarily indicate causality. This may also explain why empirical studies on the relation between FDI and trade are inconclusive.⁵

¹ S. H. Hymer, *The International Operations of National Firms: A Study of Direct Foreign Investment* (Cambridge, MA: M.I.T., 1976), Monographs in Economics, No. 14.

² These considerations are also broadly valid for the so-called "complex FDI strategies", whereby the production process is "sliced up" among different locations and intra-firm trade is of growing importance. Even ignoring the empirical question of how far this slicing up has actually progressed, the focus on corporate strategies is no more successful in providing an integrated theory of trade and FDI in the sense discussed here.

³ R. Vernon, "International Investment and International Trade in the Product Cycle", *The Quarterly Journal of Economics*, Vol. 80, May 1966.

⁴ See R. E. Lipsey and M.Y. Weiss, "Foreign Production and Exports in Manufacturing Industries", *The Review of Economics and Statistics*, Vol. 63, No. 4, November 1981.

⁵ See J. P. Agarwal, "Determinants of Foreign Direct Investment: A Survey", *Weltwirtschaftliches Archiv*, Vol. 116, No. 4, 1980, for an earlier, and G.C. Hufbauer, D. Lakdawalla and A. Malani, "Determinants of Direct Foreign Investment and its Connection to Trade", *UNCTAD Review, 1994* (United Nations publication, Sales No. E.94.II.D.19), for a more recent survey of these studies. The studies do not always, however, distinguish among manufacturing, services and natural-resource-oriented flows of FDI. Certainly, FDI in natural resources does not replace trade and domestic investment; and in ancillary services, such as sale and service networks, it is often complementary to trade.

and footwear), and production is relocated where labour is cheaper in order to supply both foreign and home markets. However, aggregate investment does not diminish in the advanced economy because its industry is constantly being restructured and upgraded, and resources are reallocated to higher-skill, higher-technology products, where it now enjoys comparative advantage. In this model,

therefore, there is no trade-off between aggregate domestic investment and FDI; global investment continuously increases, promoting trade flows. In the host country, FDI raises living standards and provides employment for those displaced by the migration of older activities to the "follower" countries. On this account, FDI is trade-oriented and benignly complementary to the host country's economy. The flying

geese pattern of FDI is governed by shifts in competitiveness brought about, in part, by macroeconomic factors, and is often contrasted with alternative patterns where FDI is governed by the "microeconomic" interests of transnational corporations (TNCs) to defend oligopolistic advantage.⁴ Thus, this paradigm offers an integrated analysis of trade and FDI at the aggregate level which a firm-based approach cannot provide (see box 4).

This chapter makes a critical assessment of this paradigm as applied to the East Asian experience. It examines trade and investment linkages among countries in East Asia at different levels of industrialization, the role played by the more advanced countries in the hierarchy, particularly Japan, and the macroeconomic factors underlying the changes in trade and investment flows within the region. The chapter also explores the extent to which government policy has been central to the flying geese pattern of development, and discusses whether this pattern always generates a mutually reinforcing, harmonious process of industrialization, or also contains some conflictual elements.

A main lesson that emerges from the assessment is that there is considerable scope for developing countries at different levels of industrialization to benefit mutually from the flying geese pattern of trade and FDI. As long as they pursue

appropriate industrial and technology policies, these countries can move up the industrial hierarchy through accelerated capital accumulation and the adaptation of advanced technology in such a way that shifts competitiveness to the mutual advantage of all countries and does not lead to unmanageable domestic dislocations and adjustment problems, or to trade frictions. Consequently, there is considerably more scope for South-South cooperation in industrial development than is generally believed.

However, with economic maturity the speed of upgrading slows down considerably, since moving up in the technology scale increasingly depends on innovation. This poses different policy challenges for the lead economy from those faced by developing countries further down the industrial hierarchy. Focusing on these concerns brings into sharper perspective the regional role of Japan, which has become much greater in recent years and has been associated with serious regional imbalances in trade and FDI flows. The response of Japan not only will determine whether or not the Japanese economy will enter a new post-industrial stage with low growth and high unemployment typical of other major industrial countries, but also will affect the fortunes of the developing countries of the region, and, indeed, prospects for the wider regional integration process.

B. Role of policy and markets in the flying geese process

The first important issue is whether or not industrial development in line with the flying geese paradigm has been a market-driven process. There can be little doubt that it implies a more outward-oriented development strategy. However, this does not mean that a mutually beneficial flying geese pattern of investment, trade and industrialization emerges spontaneously. Policy intervention would be needed if markets fail to generate signals about the possible evolution of comparative advantage so as to allow producers and investors to anticipate difficulties that existing industries may face, or if producers and investors fail to respond to market signals because of a number of impediments and imperfections, including problems of informa-

tion and coordination and of adjustment costs, or because firms' responses to price signals do not generate a mutually reinforcing process of industrialization for all the countries concerned.

Policy intervention has indeed taken place, at two levels. For the more advanced economies, notably Japan, phasing out obsolescent industries and supporting "sunrise" industries have often required considerable government intervention to help private enterprises to relocate production abroad through FDI and/or to move to different products, where they could create new comparative advantages. As examined in greater detail in *TDR 1994*, these interventions were formulated in the context

of a consistent, overall industrial policy designed to tackle a series of closely interrelated and mutually reinforcing market failures which typically held back the process of investment and innovation, and the type of industrial policy used worked through the interaction of government policy and the competitive strategies of private firms. The need for policy intervention did not lessen with the progress of industrialization in Japan. Indeed, as discussed in section H below, the response of domestic firms to recent shifts in competitiveness poses serious policy challenges.

From the Japanese perspective, outward FDI, government support and regional integration strategies have been closely interrelated. There is indeed substantial empirical evidence that corporations in Japan continue to work closely with the Government, even after they have moved abroad.⁵ Often, the Government has also worked with Governments of other countries to support an orderly, sequential transfer of industries in response to changing comparative advantage among the ranks of developing countries in Asia. In this context, the flying geese paradigm has served partly as a rationale for the country's official development assistance (ODA) and economic cooperation programmes to support the activities of Japanese firms in South-East Asia. In particular, ODA for the development of infrastructure has been seen as preparing the recipient countries elsewhere in the region for FDI and as a means of promoting their export industries.⁶ This factor also helped Japan to extend its national concepts of industrial policy to other countries of the region. It has, for instance, been suggested that officials of

the Ministry of International Trade and Industry (MITI) have tried to reproduce in South-East Asia some of the instruments of industrial policy used in Japan.⁷ Similar conclusions can also be reached from the more recent wave of regional FDI from first-tier NIEs. Thus many of the positive international spillovers within East Asia have been ultimately generated because of the success of the industrial policies of the lead economies, rather than through a purely market-generated process.

The evolution of an export-oriented industrial sector is no more spontaneous and no less difficult for developing than for developed countries. As discussed in greater detail in chapter II below, even the promotion of industries which enjoy comparative advantage arising from existing resource endowments, including labour, require considerable policy effort. The process of industrial upgrading poses even greater policy challenges. Thus, the "followers" need to employ industrial policy, in the form of infant industry protection and export promotion, in order to even the competitive playing field with the more advanced economies. The effective use of FDI in facilitating upgrading and technological catching-up and in promoting exports has also depended on a series of policy initiatives on the part of host Governments. While such policies have often been prompted by the need to respond to market pressures, they were also designed to deal with missing markets or market failures. In this sense, the flying geese paradigm of a mutually beneficial process of industrialization is best described as a market-compatible, rather than a market-driven, process.

C. Harmony, competition and conflict in the flying geese process

Most of the recent accounts of the flying geese paradigm paint a harmonious picture in which East Asian development is presented almost in entirely cooperative terms, while the potentially conflictual and competitive aspects of this process are virtually ignored. Such a harmonious vision is notable particularly with respect to the role of TNCs and FDI. As noted above, there are certainly many instances in which the interests of TNCs and the

Governments of the more advanced and the "follower" countries coincide, leading to close collaboration with little or no conflict. Again, there are many instances where the interests of producers and consumers within countries are compatible. However, it would be misleading to assume that no conflict of interest is involved either within or among countries, or between countries and TNCs in the flying geese process. Indeed, as already

noted, an important objective of policy has been to avert potential problems and conflicts by facilitating adjustment to changed conditions of competitiveness, or to bring about desired outcomes by inducing domestic and foreign investors to undertake activities they would not otherwise envisage.

In the original formulation of the flying geese paradigm by Akamatsu, conflicts among and within countries associated with trade were clearly recognized. Thus, it was recognized that the initial penetration of imports into a "follower" country would benefit local consumers but hurt producers. When local firms eventually develop and successfully compete with imports, the follower country as a whole may benefit, while the leading country as a whole may suffer. These dangers are scarcely recognized in more recent versions of the paradigm, which ignore or seriously downplay the costs and difficulties of restructuring. In the course of time both follower and lead countries may be better off as they move up in the industrial hierarchy, but the management of conflicts arising from the immediate impoverishment of producers, and adjustment to new circumstances pose serious challenges to policymakers.⁸

Conflict between countries and TNCs can take many forms. The latter seek to maximize profits from their global operations, rather than those of each and every affiliate separately. Consequently, their interests do not always coincide with those of the host country. The likelihood of conflict is greater when TNCs pursue "complex integration strategies", whereby the production process is "sliced up" among different locations and intra-firm trade is of growing importance. With such strategies the scope for transfer pricing, for example, increases considerably. As noted in another UNCTAD report, "no single country ... in which a part of a TNC system is located can be assured of capturing (or capturing to the same extent as others) the benefits" that are expected to flow from the global activities of TNCs. Although "it can reasonably be assumed that attempts by a TNC to improve its competitiveness would have favourable repercussions on at least some of the national economies within which it is operating",⁹ there is no presumption that these national economies are less advanced ones. A host developing country may wish to maximize the local content of TNC production, or to induce TNCs to locate high value-added activities within its borders and maximize spin-offs to the domestic economy by encouraging the local firms to enter the industry.

It may also wish to lock TNCs into the national economy and induce them to upgrade their technology in line with the changing needs of national development. Such objectives may conflict with the natural desire of TNCs to safeguard their technological advantages and maximize their flexibility to relocate production in line with their shifting global priorities. Transnational corporations can be a powerful engine for "recycling comparative advantage", but the extent and terms of this recycling are variable, and the more leverage a host country can exert over TNCs, the better the bargain it can strike.¹⁰ Indeed, as discussed in chapter II below, national policies towards TNCs and FDI have played an important role in shaping their contribution to the attainment of development objectives in the East Asian NIEs, and will continue to exert a major influence on the future course of industrialization and development.

What is even less appreciated is the possible conflict of interests between TNCs and the home country. The flying geese paradigm assumes that the lead country can always upgrade its industrial structure and introduce new methods of production and new products as rapidly as other countries catch up. Moreover, the markets for the new products introduced are seen as extensive as those for the products displaced. While these assumptions may be correct at earlier stages of industrialization, they become less valid with maturity. Indeed, it appears that the innovation-imitation lag between the mature economies and the NIEs has shortened considerably over the past two decades, thanks not only to greater flexibility and divisibility in production technology, but also to a rapid pace of accumulation of physical and human capital in the NIEs which has allowed them to introduce rapidly new technologies embodied in capital goods and accelerated the learning and catching-up process.¹¹ Thus, the lead countries may no longer maintain a pace of technological progress and productivity growth that would allow them to expand simultaneously FDI, trade and domestic investment.

These considerations are indeed consistent with the observed postwar development of the major industrial countries. In this experience, four distinct stages have been identified in the internationalization of manufactured activity.¹² In the first stage the country relies on exports, and its share in world manufactured exports tends to increase. The second stage is the transition "from trade reliance to investment reliance" - i.e. its share in world trade stabilizes while that of FDI starts rising. In the

third stage FDI becomes the main source for supplying foreign markets and the share of the country in world trade declines. In the final stage “neither trade nor investment can save the competitive position” of the country, whose share in global FDI also declines.¹³ The transition to industrial maturity in the latter stages has often been associated with a slowdown in growth, loss of manufacturing employment and a shift into services - i.e. de-industrialization.¹⁴

At the time when this analysis was formulated, i.e. the mid-1970s, Japan, the Federal Republic of

Germany, the United States and the United Kingdom were described as being in the first, second, third and fourth stages, respectively. The increased role of Japan in the flying geese process in the past decade appears to be associated with a shift to the third stage, where Japanese outward FDI is no longer generating but replacing exports, and no longer complementing but substituting for domestic investment. These tendencies highlight the kind of conflicts that may arise between the interests of TNCs and the home country, and underlie the recent concern over the “hollowing-out” of Japanese industry discussed in section G below.

D. FDI and regional integration

As noted above, the recent versions of the flying geese paradigm assign an important role to outward FDI by the more advanced countries, notably Japan, as a way of “recycling comparative advantage” to less developed countries. This section describes the intra-regional investment flows and their role in regional integration and industrialization. While the evidence suggests that the pattern of intra-regional FDI is broadly consistent with the flying geese paradigm, until recently such FDI was relatively small compared to the flow of FDI to the region from the United States and Europe, as well as in relation to the overall rate of regional capital accumulation. Indeed, as discussed in chapter II below, there are several important countries in East Asia, including Japan itself, which have developed rapidly without relying heavily on FDI from any source.

In assessing the role of Japanese FDI in the region, it should be noted that Japan has emerged as a major international investor only during the past decade. Ten years ago, in 1985, the outstanding stock (cumulative value) of its global FDI was around \$84 billion, equivalent to about one half of the country’s total exports in that year. During the second half of the 1980s, however, such investment increased rapidly and steadily, reaching an annual average of \$45 billion (table 21).¹⁵ The outflow somewhat decelerated in the early 1990s, but still remained high, at an average annual rate

of \$38 billion. Consequently, the share of Japan in the world stock of FDI rose rapidly, reaching 12 per cent in 1994, against less than 4 per cent in 1980 (chart 2).

This rapid increase in Japanese FDI has been accompanied by significant changes in its sectoral distribution. Before the 1980s, resource-based investment, particularly in mining and energy, was a major element, accounting for 25 per cent of total outflows. Such investment stagnated throughout the 1980s, and has constituted no more than 3 per cent since 1985. The share of manufacturing investment in total Japanese FDI was higher in the 1970s (35 per cent) than the 1980s (25 per cent), but the decline slowed down towards the end of the 1980s. There was a strong recovery in the 1990s, and in 1994 the share exceeded one third. The tertiary sector has always accounted for an important part of FDI from Japan. Much of it has been in wholesale and retail trade, designed to facilitate access of domestic producers to foreign markets. The Japanese trading companies have been instrumental in this process, handling a wide range of goods and helping exporters to overcome problems of entry, as well as providing them with information on developments in foreign markets. Originally, the establishment and operations of such companies helped obviate the need for producers to locate production facilities abroad. However, they have also played an important role in promot-

Table 21

SECTORAL AND REGIONAL DISTRIBUTION OF FOREIGN DIRECT INVESTMENT BY JAPAN

	<i>Cumulative outflow</i>					<i>Stock^a</i>			
	<i>1951- 1970</i>	<i>1971- 1980</i>	<i>1981- 1985</i>	<i>1986- 1990</i>	<i>1991- 1994</i>	<i>1980</i>	<i>1985</i>	<i>1990</i>	<i>1994</i>
Total FDI (\$ million)^b	3577 (179)	32920 (3292)	47152 (9430)	227157 (45431)	152798 (38200)	36497	83649	310806	463604
<i>of which to (per cent):</i>									
North America	25.5	27.0	36.4	48.1	43.5	26.8	32.2	43.8	43.7
Europe	17.9	11.6	13.9	21.2	20.0	12.3	13.2	19.1	19.4
Asia	21.0	27.6	20.4	12.4	18.8	26.9	23.3	15.3	16.4
Latin America	15.9	17.0	20.1	10.9	9.6	16.9	18.7	13.0	11.9
Other regions	19.8	16.8	9.2	7.4	8.1	17.1	12.7	8.8	8.6
Primary sector (\$ million)^b	886 (44)	7094 (709)	4995 (999)	5659 (1132)	4769 (1192)	7980	12975	18634	23403
<i>of which to (per cent):</i>									
North America	20.8	9.1	13.5	21.5	12.4	10.4	11.6	14.6	14.2
Europe	0.7	12.0	0.1	12.9	13.0	10.8	6.7	8.6	9.5
Asia	35.6	42.2	64.8	23.6	30.0	41.5	50.5	42.3	39.8
Latin America	12.4	18.0	6.1	5.1	10.8	17.4	13.0	10.6	10.6
Other regions	30.6	18.7	15.4	36.9	33.9	20.0	18.2	23.9	25.9
Manufacturing (\$ million)^b	928 (46)	11645 (1164)	11826 (2365)	57213 (11443)	47284 (11821)	12573	24399	81612	128896
<i>of which to (per cent):</i>									
North America	23.4	19.0	44.6	57.0	40.1	19.3	31.6	49.4	46.0
Europe	3.9	6.9	10.5	18.3	18.4	6.7	8.6	15.4	16.5
Asia	34.5	36.6	24.9	19.5	31.5	36.4	30.8	22.9	26.0
Latin America	29.6	21.5	15.0	3.0	4.6	22.1	18.7	7.7	6.5
Other regions	8.6	16.0	4.9	2.2	5.5	15.5	10.3	4.7	5.0
Services (\$ million)^b	1763 (88)	14181 (1418)	30331 (6066)	164284 (32857)	100638 (25160)	15944	46275	210559	311197
<i>of which to (per cent):</i>									
North America	29.0	42.5	37.0	45.9	46.7	41.0	38.4	44.2	45.0
Europe	33.9	15.3	17.4	22.6	21.2	17.4	17.4	21.4	21.3
Asia	6.6	13.0	11.4	9.5	12.3	12.2	11.7	10.0	10.7
Latin America	10.3	12.8	24.3	13.9	11.9	12.6	20.3	15.3	14.2
Other regions	20.2	16.4	9.9	8.2	7.9	16.8	12.3	9.1	8.7

Source: Ministry of International Trade and Industry, *Statistics on Foreign Investment and Overseas Activities of Japanese Enterprises* (in Japanese), various issues.

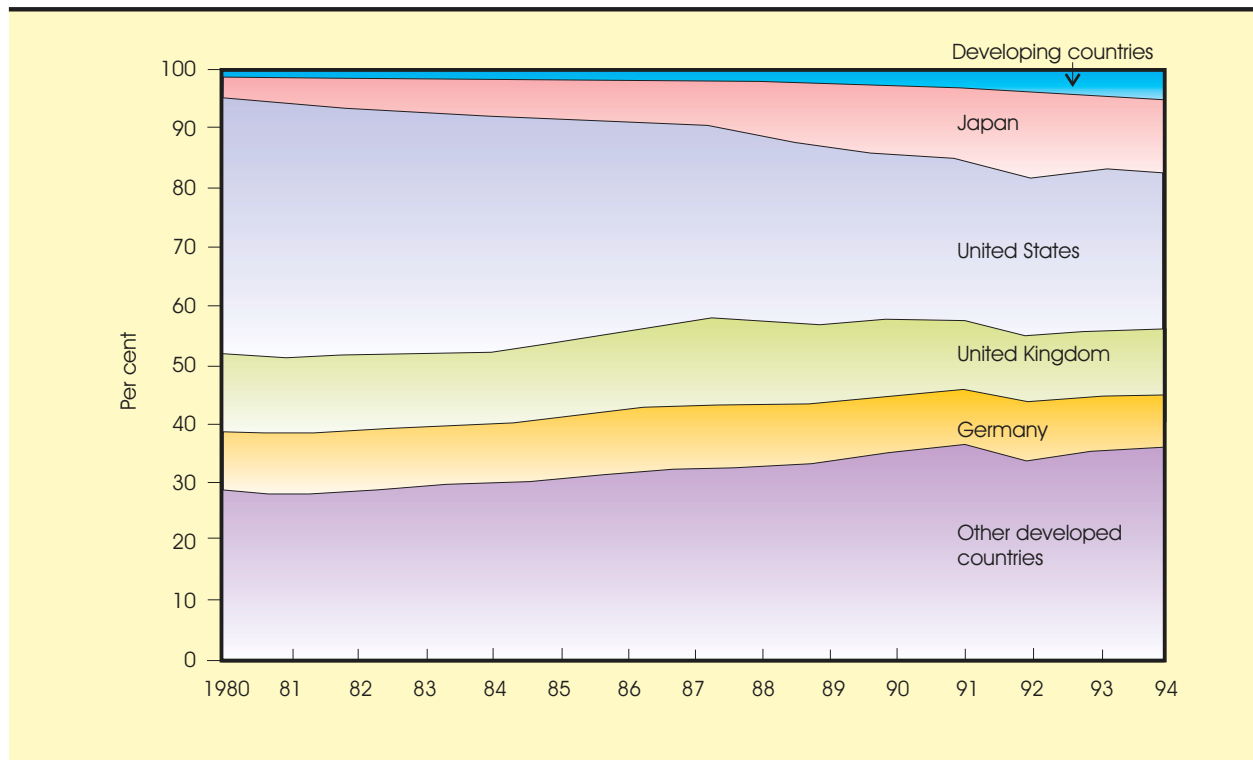
a Cumulative annual outflows valued at historical cost (i.e. cumulation of the flows shown in the first part of the table).

b Figures in parentheses are annual averages.

Chart 2

GEOGRAPHICAL DISTRIBUTION OF WORLD FDI STOCKS, BY ORIGIN, 1980-1994

(Per cent)



Source: UNCTAD data base.

ing Japanese investment abroad, particularly for small investors, when they started relocating production through FDI.

Developing countries have always accounted for a very large proportion of Japanese FDI in the primary sector. At the beginning of the 1980s they also accounted for about 70 per cent of the stock of Japanese FDI in manufacturing. Although there was an important shift in the 1980s in the direction of the flow, from developing countries to the North, this was subsequently reversed, due in particular to a reduction in the flow to North America and increased flows to East Asia, which received about one third of Japanese manufacturing FDI in 1989-1994.

In 1985 almost half of the total flow of Japanese FDI to East Asia was to Indonesia, mostly in natural resource industries and labour-intensive manufacturing.¹⁶ Singapore was also a significant recipient, with a flow of about \$2 billion, mostly

in manufacturing. Corresponding investment in Hong Kong was somewhat larger, and almost entirely in non-manufacturing. For the rest of East Asia the amounts involved were modest. It is striking that, on the whole, Japanese manufacturing investment in East Asia in 1985 was small, exceeding \$1 billion only in Singapore and Indonesia. Since that year, the stock of total Japanese FDI in East Asia has more than quadrupled and much of the new investment has been in manufacturing. It first went to the first-tier NIEs and then to the ASEAN-4, but in the 1990s attention was switched to China (see chart 3).

Until the last few years Japan was the only country in East Asia with significant FDI in the neighbouring countries. In the late 1980s it was joined by the first-tier NIEs, which started shifting some labour-intensive production to less developed countries, including China.¹⁷ Between them, the first-tier NIEs now have a greater stock of FDI in ASEAN-4 than Japan. Indeed, Taiwan

Chart 3

TRENDS IN JAPANESE FOREIGN DIRECT INVESTMENT IN ASIA



Source: Ministry of International Trade and Industry, *White Paper on International Trade 1995 (Summary)*, Tokyo, July 1996.

Note: Figures for 1994 are estimates.

Province of China alone has more FDI in Malaysia than Japan (table 22). Again, a very large proportion of FDI in China originates from Chinese residents in Hong Kong and Macau, as well as from Taiwan Province. It has been argued that

much of this apparent FDI is a recycling of funds which originate in the People's Republic of China itself. Domestic firms with money to invest are said to team up with Chinese residents abroad, who invest the money back in China, where it receives

Table 22

**COMPOSITION OF THE STOCK OF FOREIGN DIRECT INVESTMENT IN CHINA AND
ASEAN-4 IN 1992, BY ORIGIN^a**

(Percentage)

Origin	ASEAN-4 ^b				China ^c
	Total	Indonesia	Malaysia	Thailand	
Hong Kong	..	7.4	3.0	6.6	62.0 ^d
Republic of Korea	..	5.7	2.9	1.5	0.9
Singapore	..	4.1	6.7	6.3	..
Taiwan Province of China	..	7.7	22.8	9.2	8.2
<i>Total first-tier NIEs</i>	<i>25.8</i>	<i>24.9</i>	<i>35.4</i>	<i>23.6</i>	<i>71.1^e</i>
Japan	26.1	15.7	22.7	38.1	8.4
United States	9.5	6.5	7.0	11.9	8.5
Other countries	38.6	52.9	35.0	26.4	12.0 ^f

Source: Ministry of International Trade and Industry, *White Paper on International Trade 1994*, Tokyo, 1994.

a Share of home countries listed in rows in total FDI stock in host countries listed in columns.

b Indonesia, Malaysia, Thailand and the Philippines.

c 1993.

d Including also FDI from Macau.

e Excluding FDI from Singapore, for which no separate data were available.

f Including FDI from Singapore.

the privileges and protection accorded to foreign investors. According to some estimates, 25 per cent of the total flow of FDI to China in 1992 was of this variety.¹⁸

There appears to have been a strong parallel between FDI from Japan and from the first-tier NIEs in the region, with the latter generally being a stage behind the former, as implied by the flying geese paradigm. This is particularly notable with respect to the Republic of Korea, where, as in the early years in Japan, FDI was initially concentrated in resource-extracting activities aimed at ensuring continued expansion of industrial production. Since the late 1980s, however, manufacturing FDI by the Republic of Korea has surpassed resource-oriented FDI in terms of both numbers of projects and value. It appears that large Korean conglomerates have begun developing global and regional production networks, emulating their Japanese predecessors.

Similarly, from the late 1980s onward the authorities in Taiwan Province of China adopted

an active policy of moving labour-intensive industries abroad. An industrial upgrading regulation provided certain incentives, including compensation for losses incurred by investors abroad. In 1993, the Province started to pursue what came to be popularly referred to as the “southbound” policy of investment. Unlike Japan and the Republic of Korea, where FDI is undertaken mainly by large firms, it is the small- and medium-sized enterprises (SMEs) that have accounted for an important part of outward FDI.¹⁹

Thus, in terms of the sequencing of FDI among sectors and countries, the intra-regional pattern is consistent with the flying geese paradigm. Japan was the first major regional investor, first in primary sectors and then in manufacturing. Its FDI in manufacturing gradually moved from more to less industrialized countries of the region. The sectoral pattern of FDI seems to have continued when, following Japan, the second-tier NIEs also emerged as international investors. However, the evidence does not suggest that the flying geese pat-

tern of regional industrialization has depended entirely or even to a large extent on intra-regional investment. As discussed in chapter II below, FDI did not play a very important role in the industrialization of Japan and the majority of the first-tier

NIEs. It has been more important for the second-tier NIEs and China, but, as shown in table 3, FDI inflows from outside the region have been equally or even more important.

E. Intra-regional trade

The flying geese paradigm predicts a certain pattern of trade among countries in the “formation” at different levels of industrialization. Primary commodities (food, raw materials and fuels) make up the bulk of exports of countries at the bottom of the industrialization hierarchy, while their imports consist of all kinds of manufactures. As industrialization proceeds, labour-intensive manufactures account for an important part of exports, while capital goods and other skill- and capital-intensive manufactures constitute a high proportion of imports. As industrial upgrading progresses, capital goods imports continue to be important, but intra-industry trade also emerges in a number of skill- and capital-intensive products. Another implication of the paradigm is that developing countries participating in the process typically run overall trade deficits with the more advanced economies, and capital flows from the latter to the former, including FDI, help to close the external gap. In what follows the evidence on intra-regional trade is examined with a view to assessing the validity of these predictions of the flying geese paradigm.

1. Japanese trade

Table 23 shows the evolution of the trade of Japan since 1985 in selected items with the first-tier NIEs, ASEAN-4 and China. A number of features are worth noting. First, as the flying geese paradigm predicts, Japan has run trade deficits with all three areas in food, raw materials and fuel. The deficit is greater in trade with ASEAN-4 than with the first-tier NIEs, on account of both greater resource endowments of the former countries and their greater reliance on primary exports. Second, there has also been a deficit in clothing and foot-

wear with all three areas. While in absolute terms it is greatest with the first-tier NIEs, the deficit has risen fastest with China, followed by ASEAN-4.

For most other manufactures Japan has a very large and growing surplus with each of the three areas, notwithstanding the fact that generally imports have been growing faster than exports, as indicated by the declines in the export/import ratios in the table. The increase in the trade surplus in these products is explained by the fact that the volume of East Asian goods purchased by Japan was initially very small, when the period of rapid growth in the region began, particularly as regards imports of the ASEAN-4. In 1985, Japan exported manufactures to those countries worth about \$7 billion, but imported from them only some \$800 million (table 24), yielding a surplus of more than \$6 billion. In 1994, the corresponding figures were about \$39 billion and \$12 billion, giving a surplus of about \$27 billion. Thus, exports increased by a multiple of 4.6 but imports by one of 14, yet at the same time the trade surplus more than quadrupled. Clearly, if such trade trends persist, the Japanese surplus with these countries will eventually diminish in absolute value.

Japan accounts for about one half of all external exports of food, raw materials and fuel from the NIEs and China (i.e. excluding trade among the latter countries). In labour-intensive manufactures, Japan does not appear to have been a leading market for the first-tier NIEs during their initial stages of development. For instance, the share of Japan in total clothing exports from the Republic of Korea was quite low (around 15 per cent) in the 1970s, when the latter country was in an early stage of industrialization. Only during the 1980s, when the economy was already rather developed, did Korean clothing exports to Japan really take off; it

Table 23

TRADE OF JAPAN WITH FIRST-TIER NIEs, ASEAN-4 AND CHINA, 1985, 1990 AND 1994

Product group	Trade with first-tier NIEs						Trade with ASEAN-4						Trade with China					
	Trade balance (\$ billion)		Export/import ratio		Trade balance (\$ billion)		Export/import ratio		Trade balance (\$ billion)		Export/import ratio		Trade balance (\$ billion)		Export/import ratio			
	1985	1990	1994	1985	1990	1994	1985	1990	1994	1985	1990	1994	1985	1990	1994	1985	1990	1994
Manufactures	15.7	34.2	63.2	4.0	2.9	3.8	6.2	16.1	26.4	10.0	4.2	3.1	10.4	0.0	-1.5	8.0	1.0	0.9
Of which:																		
Chemicals	1.7	4.5	7.2	4.9	5.4	6.2	0.6	1.5	2.3	5.2	5.6	4.8	0.4	0.2	0.4	2.6	1.3	1.5
Computers and office equipment	0.7	1.7	1.9	7.4	3.2	1.7	0.1	0.1	-0.3	131.4	1.2	0.7	0.2	0.1	0.0	1254.8	2.9	1.2
Electrical machinery	4.7	12.0	22.1	7.7	5.2	5.0	1.1	3.0	7.0	17.4	5.0	3.1	2.3	1.0	2.0	186.6	4.3	2.2
Non-electrical machinery	3.9	10.4	17.2	17.0	10.8	16.3	1.6	6.2	10.4	26.8	22.3	15.6	2.5	1.0	4.7	839.9	8.6	11.6
Road motor vehicles	1.1	2.7	5.0	63.0	12.6	13.0	1.1	3.9	5.6	81.3	148.1	60.2	1.8	0.2	1.4	9241.1	25.3	18.4
Clothing and footwear	-1.3	-4.0	-2.9	0.1	0.0	0.1	-0.0	-0.5	-1.2	0.2	0.0	0.0	-0.5	-2.5	-9.1	0.0	0.0	0.0
Manufactures classified by material ^a	3.6	4.9	8.0	3.5	2.2	2.8	1.5	1.8	2.4	5.7	1.9	1.7	3.4	0.4	1.1	7.1	1.3	1.3
Other manufactures	1.4	1.9	4.7	2.6	1.6	2.2	0.3	0.3	0.2	6.9	1.4	1.1	0.4	-0.3	-2.1	3.6	0.5	0.3
Food, materials & fuels ^b	-2.9	-4.0	-2.4	0.3	0.5	0.7	-15.6	-18.4	-17.7	0.0	0.0	0.1	-4.4	-5.9	-7.4	0.1	0.1	0.1
Unspecified	-0.1	0.4	1.6	0.9	1.6	2.9	0.0	-0.0	-0.2	1.1	0.9	0.7	-0.0	0.0	0.1	0.9	1.4	1.7
Total merchandise trade	12.8	30.7	62.4	2.3	2.2	3.0	-9.4	-2.2	8.6	0.4	0.9	1.3	6.0	-5.9	-8.8	1.9	0.5	0.7

Source: United Nations, Commodity Trade Statistics tapes.

^a Excluding non-ferrous metals.^b Including non-ferrous metals.

Table 24

**EXPORTS OF MANUFACTURES FROM SELECTED EAST ASIAN COUNTRIES,
BY MAJOR DESTINATION, 1985 AND 1994**

(Billions of dollars)

Exports to	from	Developing East Asia									
		Total		First-tier NIEs		ASEAN-4		China		Japan	
		1985	1994	1985	1994	1985	1994	1985	1994	1985	1994
World		102.2	483.8	82.7	281.7	10.2	102.5	9.3	99.6	169.4	377.8
Developing East Asia		19.1	173.2	13.1	101.9	2.9	34.3	3.1	37.0	39.7	142.3
First-tier NIEs		11.9	114.8	6.6	51.9	2.4	28.4	2.9	34.5	20.9	86.0
ASEAN-4		5.1	42.9	4.5	36.2	0.4	4.2	0.2	2.5	6.9	38.8
China		2.0	15.5	1.9	13.8	0.1	1.7	.	.	11.9	17.5
Japan		7.8	50.3	5.9	23.9	0.8	11.7	1.1	14.7	.	.
Other developed market economies		61.7	105.8	53.1	122.0	5.7	46.3	2.9	37.5	100.5	196.4
Rest of world		13.5	54.5	10.5	33.9	0.8	10.2	2.2	10.4	29.2	39.1

Source: UNCTAD secretariat calculations, based on United Nations *Commodity Trade Statistics* tapes.

absorbed between 20 and 50 per cent of total Korean clothing exports in 1990, depending on the item concerned. Similarly, in the late 1980s, only a small share of labour-intensive exports (10 per cent or less, according to the item concerned) from ASEAN-4 went to Japan. However, such exports appear to have risen rapidly during the present decade.

Despite the rapid growth of imports, the Japanese market is still of secondary importance for most other manufactured products from East Asia. Per head of population, Japan imports roughly the same amount of manufactured goods from East Asia as does the United States or Western Europe. However, because of their much larger populations, the total manufactured imports of these areas from East Asia are much greater than those of Japan (table 24). Around 10 per cent of total exports of manufactures from developing East Asia currently go to Japan, but the vast bulk of exports is still to other developed market economies, principally in Europe and North America. In recent years, there has been an upsurge in Japanese imports of elec-

tronic goods from other East Asian countries, such as telecommunication and sound equipment from Malaysia, electronic micro-circuits from the Republic of Korea, and automatic data processing equipment from Singapore and Taiwan Province of China. This development has received considerable attention, but in fact the scale of such trade is still quite small. In 1993 only some 7-11 per cent of all external exports from China and NIEs of machinery and transport equipment, office machinery, electrical goods and other machinery went to Japan.

A related feature of the trade between Japan and the East Asian developing countries is significant trade imbalances. The latter countries have become of growing importance as a market for Japan, now absorbing more than a third of all its exports (table 25). But since Japan buys comparatively little in return, the result has been an unusual trading asymmetry, with Japan enjoying a large trade surplus with developing East Asia and the latter region enjoying a large trade surplus with industrial countries other than Japan. Nor is this

Table 25

**TOTAL EXPORTS OF SELECTED EAST ASIAN COUNTRIES,
BY MAJOR DESTINATION, 1980-1994**

(Billions of dollars)

Exports to	from		Developing East Asia				Japan	World ^a
			Total	First-tier NIEs	ASEAN-4	China		
World		1980	117.3 ^b	70.3	47.0	..	129.5	..
		1985	146.2 ^b	100.3	45.9	39.4 ^c	175.8	..
		1990	361.7	213.5	86.1	62.1	286.8	..
		1994	591.6	313.8	156.8	121.0	395.3	..
Developing East Asia		1980	23.2 ^b	13.3	9.9	..	33.3	127.3
		1985	52.9 ^b	17.8	11.9	16.1 ^c	42.4	144.5
		1990	110.5	54.5	24.1	31.9	84.8	415.2
		1994	213.2	116.2	51.6	45.4	152.4	648.1
First-tier NIEs		1980	14.4 ^b	6.4	8.0	..	19.1	88.0
		1985	17.7 ^b	8.5	9.2	15.1 ^c	22.6	107.0
		1990	76.7	27.8	18.7	30.2	56.5	266.1
		1994	139.9	58.4	39.9	41.6	93.2	365.8
ASEAN-4		1980	7.8 ^b	6.3	1.5	..	9.1	39.3
		1985	9.1 ^b	7.0	2.1	1.0 ^c	7.3	37.5
		1990	25.1	19.8	3.6	1.7	22.2	95.8
		1994	52.8	41.6	7.4	3.8	40.5	166.7
China		1980	1.0 ^b	0.6	0.4	.	5.1	..
		1985	2.9 ^b	2.3	0.6	.	12.5	..
		1990	8.7	6.9	1.8	.	6.1	53.3
		1994	20.5	16.2	4.3	.	18.7	115.6
Japan		1980	23.4 ^b	7.2	16.2	..	.	139.9
		1985	24.8 ^b	10.7	14.1	6.4 ^c	.	127.5
		1990	57.1	27.0	21.1	9.0	.	231.2
		1994	81.0	31.8	27.6	21.6	.	272.3
North America		1980	28.7 ^b	19.7	9.0	..	34.1	308.0
		1985	50.1 ^b	40.7	9.4	3.4 ^c	70.6	434.1
		1990	88.5	65.4	17.5	5.6	97.6	632.3
		1994	132.6	75.1	34.6	22.9	124.6	834.3
Western Europe ^d		1980	20.3 ^b	13.6	6.7	..	21.5	902.4
		1985	19.5 ^b	13.6	5.9	4.5 ^c	25.3	779.9
		1990	53.4	38.5	14.9	6.2	63.2	1655.3
		1994	84.4	43.7	24.6	16.1	65.6	1692.8

Source: UNCTAD secretariat calculations, based on United Nations *Commodity Trade Statistics* tapes.

a Owing to lack of data, figures for exports from "world" to the countries listed are imports (c.i.f.) as reported by those countries.

b Excluding China, for which no data were available before 1987.

c 1987.

d Including the eastern *Länder* of Germany from 1991.

an example of “triangular trade”, since Japan does not use its surplus with developing East Asia to finance imports from the rest of the world. On the contrary, it runs a surplus with both regions. However, as discussed below, present trends suggest that the situation is changing rapidly and that the Japanese trade surpluses with countries both within and outside the region are likely to shrink in the coming years, particularly as outward FDI continues to replace exports.

To sum up, although Japan did not constitute an important market for the first-tier NIEs for their labour-intensive products in their earlier stages of development, it has been playing a greater role vis-à-vis the second-tier NIEs. This is largely because Japan had not yet phased out an important part of its labour-intensive industries in the former instance. Thus, both the pattern and the evolution of trade between Japan and East Asian developing countries are broadly consistent with the flying geese paradigm. On the other hand, while trade imbalances continue to be large, they are likely, as discussed below, to diminish over time if the recent patterns of trade and FDI continue.

2. Trade among developing East Asian countries

The first-tier NIEs have emerged not only as major investors in the less developed countries of East Asia, but have also become important trading partners for them. Like Japan, they supply manufactures on a large scale to these countries, but unlike Japan they also purchase manufactures from them on a large scale. In 1994, exports of manufactures from ASEAN-4 to the first-tier NIEs amounted to \$28 billion and to Japan to less than \$12 billion. Chinese exports of manufactures to the same destinations were about \$35 billion and \$15 billion, respectively (table 24). Thus, the first-tier NIEs were more than twice as important as Japan as outlets for the manufactured exports of their less developed neighbours. It is interesting to note that the same is also true for trade among the first-tier NIEs, which export far more to each other than they do to Japan (tables 24 and 25).

The evidence thus suggests that there is a rapid process of integration taking place within the smaller countries of East Asia, a process in which even China is becoming involved to some extent. Trade among the countries of East Asia (exclud-

ing Japan) has been rising much faster than trade with the outside world, accounting for around one third of their total imports and exports. Although Japan has a huge trade surplus with the rest of East Asia, the latter countries on average now import more manufactures from each other than they do from Japan (table 24). Japan remains the dominant supplier of road vehicles and other machinery, but it has been overtaken in chemicals, electrical equipment and office machinery, where trade among other East Asian countries is now greater than their trade with Japan.

The pattern and evolution of trade among the developing East Asian countries (see table 26) are also broadly consistent with the predictions of the flying geese paradigm. The resource-rich ASEAN-4 have trade surpluses with both China and the first-tier NIEs in food, materials and fuels, while China has a surplus in the same categories with the first-tier NIEs. China also has a surplus with these countries in labour-intensive manufactures, such as clothing and footwear, which has been increasing over the past decade. Its trade deficits with these countries are mostly in technology- and skill-intensive products. A similar pattern is observed in trade between the first-tier NIEs and ASEAN-4. On the other hand, China's trade with ASEAN-4 does not show any clear pattern in labour- or skill- and technology-intensive manufactures.

At present all three areas (first-tier NIEs, ASEAN-4 and China) run large surpluses in manufacturing trade with the developed market-economy countries of Europe and America. For China and ASEAN-4, this surplus reflects their rising exports of labour-intensive items, which now exceed their imports of more sophisticated items such as chemicals, machinery and transport equipment. The picture is more complex for the first-tier NIEs. These countries still have a large trade surplus with Europe and North America in labour-intensive products, but this surplus is diminishing as they develop and shift to more sophisticated products. There has been a spectacular growth in exports of machinery and transport equipment from the first-tier NIEs over the past decade, and these countries now have a large trade surplus in such products with those regions.

These trends in trade thus provide strong support for the flying geese paradigm so far as trade among the NIEs is concerned. While the role of Japan as the lead goose is open to question, among

Table 26

TRADE AMONG CHINA, THE FIRST-TIER NIEs AND ASEAN-4

Product group	Trade of China with:																		
	First-tier NIEs					ASEAN-4					Trade of ASEAN-4 with first-tier NIEs								
	Trade balance (\$ billion)		Export/import ratio			Trade balance (\$ billion)		Export/import ratio			Trade balance (\$ billion)		Export/import ratio						
1985	1990	1994	1985	1990	1994	1985	1990	1994	1985	1990	1994	1985	1990	1994	1985	1990	1994		
Manufactures	0.5	8.7	4.8	1.2	1.5	1.2	-0.2	0.2	0.7	0.5	1.2	1.4	-1.2	-3.9	1.0	0.7	0.7	1.0	
Of which:																			
Chemicals	0.1	0.3	-2.9	1.6	1.3	0.4	0.0	0.0	0.2	1.3	1.4	2.1	-0.6	-1.2	-2.2	0.2	0.4	0.4	0.4
Computer and office equipment	-0.1	0.0	0.2	0.1	1.1	1.3	0.0	0.0	0.0	21.0	2.1	1.7	-0.1	0.3	2.2	0.2	1.3	2.4	2.4
Electrical machinery	-0.5	0.8	0.4	0.2	1.3	1.1	0.0	0.0	0.2	7.6	2.5	2.4	0.1	0.0	1.7	1.2	1.0	1.2	1.2
Other machinery	-0.4	-1.2	-4.6	0.2	0.5	0.2	0.0	0.2	0.3	8.0	11.6	3.6	-0.5	-1.9	-2.5	0.4	0.3	0.4	0.4
Road motor vehicles	0.0	0.6	0.2	1.0	1.3	1.5	0.0	-0.1	0.0	20.3	0.5	3.7	-0.0	-0.0	0.3	0.4	0.6	1.9	1.9
Clothing and footwear	0.3	5.5	8.6	39.6	119.1	24.9	0.0	0.0	0.3	111.2	60.1	139.2	0.0	0.3	1.0	2.1	5.1	8.8	8.8
Manufactures classified by material ^a	1.1	0.5	-1.1	3.0	1.1	0.9	-0.2	-0.0	-0.5	0.2	0.9	0.6	-0.1	-1.5	-0.6	0.9	0.6	0.9	0.9
Other manufactures	0.0	2.1	4.0	1.1	2.1	2.7	0.0	0.0	0.2	3.2	2.0	6.3	-0.1	0.1	1.2	0.7	1.1	1.6	1.6
Food, materials & fuels ^b	3.4	3.6	3.6	12.1	3.5	2.0	0.0	-0.5	-1.3	1.1	0.5	0.5	4.1	4.1	5.3	2.7	2.0	2.0	2.0
Unspecified	0.0	0.0	-0.1	1.0	0.2	0.2	-0.0	-0.0	0.0	0.1	0.8	14.7	0.0	-0.6	-0.5	1.1	0.4	0.7	0.7
Total merchandise trade	4.0	12.3	8.2	1.8	1.7	1.2	-0.1	-0.4	-0.5	0.8	0.8	0.9	3.0	-0.5	5.9	1.5	1.0	1.2	1.2

Source: United Nations, *Commodity Trade Statistics* tapes.

Note: Import and export figures for the trade of China used for the compilation of this table are those reported by that country. They can differ substantially from those reported by the partner countries, due to re-exports from Hong Kong.

^a Excluding non-ferrous metals.

^b Including non-ferrous metals.

the remaining countries it does seem to be the case that industrialization is being transmitted from one

wave of developing countries to the next wave by the mechanisms postulated in this paradigm.

F. Macroeconomic influences on East Asian trade and FDI

The evolution of trade and FDI in East Asia has been greatly influenced by a number of macroeconomic developments in Japan, its major trading partners in the West, and the NIEs of the region. In the first half of the 1980s, disparities in the growth of major markets and the appreciation of the dollar gave a major boost to Japanese exports to major industrialized countries. From the early 1980s the dollar rose rapidly, exceeding 260 yen in 1985. Although it appreciated against some other currencies, the real effective exchange rate of the yen fell from 1981 to 1985. Thus, the increase in the share of Japan in world exports of manufactures, which had already begun in the 1960s, continued with greater force in the first half of the 1980s (table 27). As a result, the Japanese trade surplus, which had peaked at \$23 billion in 1978 but disappeared in 1979-1980 under the impact of the second oil price shock, started to rise again rapidly, and exceeded \$50 billion by the mid-1980s.

As noted above, the surge in exports in the first half of the 1980s was also associated with a sharp increase in Japanese manufacturing FDI in the United States and, to a lesser extent, in Europe, which appears to have been a response to increased protectionism in those markets. In the United States, despite a strong recovery from the 1980-1982 recession, unemployment remained high, and this, together with a mounting trade deficit, gave rise to renewed pressures for protectionism. In Western Europe, on the other hand, despite the external demand stimulus from the United States and improvements in trade balances, recovery remained weak and unemployment continued to rise. There was a widespread resort to non-tariff measures (NTMs) such as voluntary export restraints and anti-dumping and countervailing measures in both regions.²⁰

In the second half of the 1980s continuing protectionism, the appreciation of the yen, and increased competition from low-wage, high-

productivity producers in East Asia played a crucial role in the switch by Japanese firms from reliance on exports to reliance on investment and production abroad in supplying foreign markets. These pressures accentuated in the 1990s and, together with shifts in competitiveness among the East Asian NIEs, exerted a strong influence on trade and investment.

The Plaza Accord of September 1985 to lower the exchange rate of the dollar was in part a consequence of the threat posed by mounting protection in the United States. The nominal effective exchange rate of the yen rose by more than 50 per cent from 1985 to 1988, and the real effective exchange rate by 40 per cent. The initial reaction of Japanese firms was to resort to what is known as "pricing to market", namely to reduce yen export prices and to take cuts in profit margins on exports.²¹ High profits that had been earned while the dollar was appreciating made it easier to accept lower profit margins rather than lose market shares.²² Japanese firms were also greatly helped by the terms-of-trade gains and by the declines in the prices of imported inputs brought about by the appreciation of the yen, and, even more so, by the collapse of oil prices from their earlier peaks.²³ However, these did not prevent substantial declines in profits from exports.²⁴

Exports from Japan fell in volume in 1986 and stagnated in 1987, but the trade surplus rose in dollar terms due to the valuation effect, reaching almost \$100 billion in 1987. "Pricing to market" slowed down the adjustment of the United States trade deficit, which rose to \$160 billion in the same year. Thus, the decline of the dollar did not bring about a reversal of the protectionist actions that had proliferated in the first half of the 1980s. Instead, new non-tariff measures were put in place.²⁵

Japanese producers saw the post-Plaza appreciation of the yen as a permanent shift rather than

Table 27

SHARES IN WORLD EXPORTS OF MANUFACTURES^a OF FIRST-TIER NIEs AND MAJOR INDUSTRIAL COUNTRIES, 1965-1993

(Percentage)

<i>Period</i>	<i>United States^b</i>	<i>United Kingdom</i>	<i>Germany</i>	<i>Japan</i>	<i>First-tier NIEs</i>
1965-1969	19.1	10.6	17.1	8.5	2.0
1970-1974	15.4	8.3	17.7	10.3	3.4
1975-1979	14.4	7.9	16.9	11.1	4.8
1980-1985	14.6	6.8	14.8	13.4	6.8
1986-1990	11.9	6.2	15.6	13.3	8.6
1991-1993	13.0	5.9	14.2 ^c	12.9	9.0

Source: UNCTAD secretariat calculations, based on United Nations *Commodity Trade Statistics* tapes.

a SITC 5-8 less 67 and 68.

b Including Puerto Rico for 1965-1980 and also US Virgin Islands for 1981-1993.

c Including the eastern *Länder* after 1991.

a temporary surge, and responded in three ways. First, they invested heavily at home in order to enhance productivity and cut costs and to upgrade and expand in a number of areas to improve competitiveness. The share of capital formation in GDP rose from about 27 per cent in 1987 to 32 per cent in 1990, reaching the previous high achieved immediately after the first oil crisis, and investment in machinery and equipment alone grew at an unprecedented rate of 15 per cent per annum.

Second, as noted above, they invested heavily in the United States and, to a lesser extent, in Europe in order to supply these markets directly from local plants, and so side-step protectionism and protect profits. Alongside a sharply increased investment in manufacturing in the United States there was also a surge in investment in financing and insurance, and real estate.

Finally, they relocated production to low-cost countries in East Asia with a view to exporting both to third markets and back to Japan, as well as to supplying local markets. The rise of the yen at first benefited more the first-tier NIEs, which received a larger proportion of Japanese FDI than the rest of East Asia. Initially, such investment concentrated in labour-intensive manufactures, but subsequently shifted to technology-intensive sectors as wages rose and the currencies of these

countries appreciated against the dollar after 1987, in part as a result of their strong export performance, but also under the pressure from the United States to revalue. Currency appreciation and rising wages in the first-tier NIEs, as well as rising protectionist sentiments against these countries explain why Japanese FDI, particularly in labour-intensive manufactures, has moved away gradually to ASEAN-4 and China.²⁶ In the latter case it was also easier to enter the domestic market in many products through FDI than through exports.

Japanese firms were greatly helped in this period by government policies (noted in section B above) in phasing out and restructuring non-competitive industries and supporting investment in new areas. New investment was also greatly facilitated by the relaxation of monetary policy as part of the Louvre Agreement, which reduced significantly the cost of financing capital investment by producing a sharp escalation of prices in the stock market. Indeed, an important objective of the Bank of Japan was to facilitate the adjustment of industry to yen appreciation.

The appreciation of the yen and the resiting of production abroad had a major impact on the volume, composition, origin and destination of Japanese imports and exports as well as those of its main trading partners.²⁷ There was a surge in

Japanese imports, which rose by more than 80 per cent from 1985 to 1990 (table 25), partly stimulated by the expansion of aggregate domestic demand led by the investment boom. As noted above, much of these additional imports, particularly in labour-intensive manufactures, came from the first-tier NIEs, ASEAN-4 and China. Following the investment boom, Japanese exports picked up, increasing in volume by about 4.5 per cent per annum from 1988 to 1990. Moreover, the structure of exports underwent a significant change, from labour- to technology-intensive products. Exports to the three areas rose sharply, particularly in capital goods, associated with the increase in FDI; in 1990 exports to these countries were double their 1985 volume.

Trade and investment among the developing countries of the region have also been influenced by changes in exchange rates and competitiveness. With the exception of Hong Kong, where the currency had been pegged to the dollar since the early 1980s, the currencies of the first-tier NIEs appreciated rapidly against the dollar throughout the second half of the 1980s; the appreciation was around 20 per cent for the Republic of Korea and Singapore and 48 per cent for Taiwan Province of China. Their exports to the United States decelerated as a result of this appreciation, while Europe and Asia became more important markets for these countries. The first-tier NIEs responded to currency realignments and the emergence of strong competition from ASEAN-4 in much the same way

as Japan - by upgrading through investment, relocating labour-intensive industries and subcontracting in the less developed neighbouring countries.

As noted above, Taiwan Province of China emerged as the second most important investor in the region. Various surveys suggest that the prime motivations for investment abroad were lower wage costs, utilization of host-country GSP benefits, and access to host countries' domestic markets.²⁸ Similarly, according to a survey conducted in the late 1980s, the single most important motivation for FDI from the Republic of Korea in ASEAN-4 was the availability of low-cost labour (47.1 per cent), while other factors were their utility as export platforms to industrialized countries (21.6 per cent), and penetration of local markets (13.9 per cent). Accordingly, Korean FDI in South-East Asia was primarily to Indonesia, which has the lowest wage levels in the ASEAN region.²⁹

There can be little doubt that the trade and investment patterns in East Asia in the past decade have been the product of corporate strategies and decisions. These have, in turn, been strongly influenced by macroeconomic changes and expectations regarding their permanence. However, government policies have been crucial in this process not only through actions at the sectoral or firm level, but also by influencing overall macroeconomic conditions so as to facilitate adjustment to changes in competitiveness.

G. "Hollowing out" in Japan?

Just as it was adjusting to the post-Plaza exchange rates and competitiveness, Japan faced a new situation at the beginning of the 1990s, namely, a "debt deflation-cum-recession" process brought about by the burst of the speculative bubble.³⁰ The situation was aggravated by another appreciation of the yen, beginning in late 1992. By the end of 1995 the yen had risen against the dollar by two-and-a-half times within a decade, and its nominal effective exchange rate was up by more than two times.³¹

The sharp rise in the yen coincided with considerable improvements in productivity and declines in unit labour costs in the United States and, to a lesser extent, in Western Europe, brought about by industrial restructuring. As after the Plaza Accord, Japanese firms first responded to the erosion of competitiveness by cutting profits; during the first half of the 1990s the dollar price of Japanese exports rose 15 per cent compared to the price of United States exports, while the yen appreciated against the dollar by 40 per cent.³²

They also shifted to high-value export products. However, unlike post-Plaza, they cut down sharply on domestic investment in order to reduce excess capacity; real gross private non-residential fixed investment fell by 20 per cent from 1991 to 1995, a contraction which is unprecedented in the postwar cyclical behaviour of the Japanese economy.

Japan has found the recent adjustments far more difficult to make than previous ones (the oil crises and the Plaza Accord). Whereas on those occasions the growth of the economy never fell below 2 per cent, real GDP grew by only 1 per cent in 1992, fell in 1993 and has virtually stagnated in 1994 and 1995. For the first time for many years, employment has followed variations in output, and the unemployment rate passed the psychological barrier of 3 per cent in 1995.

During the initial stage of the downturn, there was a clear slowdown in outward FDI, partly due to the recession in the United States and Western Europe and partly to the need for funds for corporate restructuring, further aggravated by the collapse of stock prices in Japan. However, from 1993 onwards, when the dollar declined below 100 yen, Japanese firms increasingly responded to the crisis by relocating production to countries with lower labour costs, mainly ASEAN-4 and (even more) China, and by increasing their procurement from affiliates abroad.³³ These investments made a major contribution to the sharp turnaround in the Japanese trade balance. Import volumes rose sharply, in 1994-1995, by an annual average of over 13 per cent, while exports remained sluggish. Thus, Japan's share in world exports started to decline, while its share in world FDI stock continued to rise. Accordingly, after exceeding \$140 billion in 1994, the trade surplus fell sharply, to less than \$110 billion in 1995, the first drop in five years.

These developments suggest that a major structural transformation has taken place in Japanese trade and FDI over the past decade. In the first half of the 1980s, Japan continued to rely on exports to supply foreign markets, even though it began to emerge as a leading international investor. During that period FDI was trade-oriented in the way described by the recent formulations of the flying geese paradigm, complementing rather than substituting for domestic accumulation. Thus, Japan's shares in both world exports of manufactures and world FDI increased throughout that period (chart 2 and table 27).

The second half of the decade marks a transition from trade reliance to investment reliance, i.e. to the second stage in industrial development described in section C; Japan's share in world manufactured exports stabilized, while its share in FDI stock continued to rise rapidly. During that period, the complementarity of FDI with exports and domestic investment is less evident. The 1990s mark a gradual transition to the third stage, with FDI becoming the principal means of supplying global markets, competing with, rather than complementing, exports and domestic investment. The combination of currency appreciation, heightened foreign competition, external pressures to reduce the trade surplus and sluggish domestic demand has been forcing Japanese producers to relocate production abroad at the expense of domestic investment and exports. Thus, Japan seems to have entered the mature stage of industrialization, where its share in world exports can be expected to diminish steadily, while its share in world FDI stabilizes, accompanied by a decline in the pace of domestic capital accumulation and the potential growth rate. These developments underlie the recent concern over "hollowing out" of the industrial base in Japan, exemplified by the convening in February 1995 in Tokyo by the Ministry of Foreign Affairs of an International Seminar on Hollowing Out and Internationalization.

Few studies have been made of the effect of FDI on Japan's exports and balance of payments. Estimates by the Economic Planning Agency of Japan suggest that during 1985-1990 the flow of FDI to North America had a large export-inducing effect - albeit one reduced by the increased pressure for greater local procurement in that country - but the export substitution effect was even greater. Moreover, the reverse-import effect also appears to be very small; over 90 per cent of the goods produced in the United States and Europe by subsidiaries of Japanese enterprises are sold locally.³⁴ These estimates are thus consistent with the above observation that Japanese manufacturing FDI in the United States was largely triggered by a combination of protectionism in that country and loss of competitiveness by Japanese firms after Plaza.

The overall effect on the trade balance of Japanese FDI flows to Asia was also negative. However, unlike that flows to North America, the export-inducing effect was greater than the export-substituting effect, and the overall negative impact on the trade balance was due to a strong reverse-import effect, particularly in electronics and

Box 5**FDI BY JAPAN AND DOMESTIC INVESTMENT**

Rather than formulating a theoretical relationship between FDI and gross fixed capital formation (GFCF), an exploratory study is made of the relationship between them by using an auxiliary regression, where the choice of the explained or explanatory variable is arbitrary. The equation first estimated is:

$$FDI_t = \alpha + \beta GFCF_t + \epsilon_t \quad (1)$$

This equation has been estimated for both total and manufacturing investment, using ordinary least squares (OLS). Since time series on GFCF in manufacturing are not consistently available, GFCF in machinery and equipment is used as a proxy. A separate equation for FDI and GFCF in machinery and equipment has also been estimated. The estimates using the logarithms of the nominal values of the variables are reported in the table below. Estimates using the nominal levels of the variables, not reported here, were similar, as were also those using real variables.

While these estimates give a positive long-term relation between the two, they also suggest a structural break.¹ Indeed, the break-point Chow tests reject the hypothesis of the stability of the equation in all its specifications, and the series of recursive coefficients indicate structural breaks in the late 1980s for all the estimates.

Next, two dummies are introduced, one for the intercept and one for the slope of the equation, to determine the structural break. The rationale for using an intercept dummy (as well as a slope dummy) is to capture the effect of changes in competitiveness on FDI (GFCF) that occur independently of their effect on GFCF (FDI). The following equation is estimated:

$$FDI_t = \alpha + \delta \text{ Dummy} + \beta GFCF_t + \gamma \text{ Dummy} * GFCF_t + \epsilon_t \quad (2)$$

where the intercept and slope are given by α and β , respectively, before the break, and by $\alpha+\delta$ and $\beta+\gamma$ after. Estimation results in the table below indicate that there is a shift in both the slope and the intercept. According to the Akaike Information Criterion (AIC), this break is in 1988 for the relation between total FDI and GFCF, and in 1988 or 1989 between manufacturing FDI and GFCF; that is, both dummy variables are equal to zero for 1970-1987 (1988) and unity afterwards. Thus, in all these cases the relationship between domestic and foreign investment is one of complementarity in the former period (as indicated by the positive values of β), and substitutability in the latter (negative value of $(\beta+\gamma)$). It is also noteworthy that the break is much sharper for manufacturing investment than for total investment.

In order to test if the estimated slope for the period after the break ($\beta+\gamma$) was significant, additional tests were applied. First, joint tests (Wald tests) indicated that the coefficient is significant at the 5 per cent level for the equation using FDI and GFCF in machinery and equipment, but not for the others. Second, the same equation was estimated by changing the definition of the dummy variable, setting it at zero after the break and unity before the break, so that the slope is now given by β and $\beta+\gamma$, respectively. Results indicated that β is negative for all specifications of the equation and again significant at the 5 per cent level for the specification using investment in machinery and equipment.

¹ Unit root tests (Augmented Dickey-Fuller tests) indicate that these series are all non-stationary, but cointegration tests give a cointegration between the domestic investment and FDI for all the definitions and specifications used in estimating equation (1) above.

Box 5 (concluded)

RELATIONSHIP BETWEEN FDI AND GFCF: OLS RESULTS

Explained variable	Explanatory variable	Dummy = 1 for the period	α	β	δ	γ	R^2	F	D.W.	AIC
log(FDI)	log(GFCF)	-	-6.325* (-13.234)	1.452* (18.046)			0.934	325.7*	0.658	-2.064
log(FDI _{man})	log(GFCF _{mach})	-	-5.291* (-18.316)	1.355* (21.844)			0.956	477.2*	1.069	0.256
log(FDI _{mach})	log(GFCF _{mach})	-	-7.772* (-22.462)	1.678* (22.583)			0.959	510.0*	0.938	0.616
log(FDI)	log(GFCF)	1988-1994	-6.402* (-10.807)	1.464* (13.575)	1.802* (3.679)	-2.585* (-3.658)	0.960	168.4*	1.124	-2.406
log(FDI _{man})	log(GFCF _{mach})	1988-1993	-5.057* (-13.922)	1.294* (15.069)	15.428* (2.880)	-2.651** (-2.841)	0.970	217.4*	1.588	0.029
log(FDI _{mach})	log(GFCF _{mach})	1989-1993	-8.248* (-23.614)	1.797* (22.192)	27.613* (3.765)	-4.835* (-3.807)	0.980	295.6*	1.501	0.154

Notes: Figures in parentheses are t-coefficients.

* Significant at the 1 per cent level.

** Significant at the 5 per cent level.

electrical machinery; around 25 per cent of Japanese imports of these products from Asia are from the subsidiaries of Japanese firms. Again these features are consistent with the view that Japanese FDI in Asia during 1985 to 1990 was largely of the cost-reducing variety. Indeed, according to figures given by the Nomura Research Institute (NRI), operating profit margins for plants established through Japanese FDI have been consistently higher in Asia than elsewhere.³⁵

The effect of Japanese FDI on trade has not been identical for all manufactured products, since changes in competitiveness have not been uniform.

The estimates given by NRI, based on trade specialization coefficients (defined as the ratio of the trade balance in each product to the volume of trade in that product) show that since 1985 Japan has maintained its competitiveness in capital goods, suggesting that the FDI has induced exports for such industries.³⁶ By contrast, loss of competitiveness has been particularly severe in durable and non-durable consumer goods, where most of the reverse imports have been taking place.

However, the positive effect of increased capital good exports associated with FDI is expected to weaken over time while the reverse-import ef-

Table 28

**SALES AND PURCHASES BY JAPANESE OFFSHORE MANUFACTURING SUBSIDIARIES,
1993-1995, AND PROJECTIONS UP TO 2000**

(Percentage of total sales and purchases)

Subsidiaries in	Sales to Japan					Purchases from Japan				
	1993	1994	1995	1998	2000	1993	1994	1995	1998	2000
North America	3.0	3.0	3.0	4.0	5.0	40.0	40.0	40.0	30.0	20.0
Asia	15.0	15.0	15.0	22.5	25.0	40.0	40.0	40.0	35.0	30.0
Europe	1.0	1.0	1.0	1.8	2.0	45.0	45.0	45.0	40.0	35.0
Total, three regions	6.7	6.9	7.0	11.1	13.0	41.1	41.1	41.1	34.1	27.3

Source: Y. Takao and N. Nemoto, "Long-term outlook: Japan's economy in an era of structural change", *Nomura Research Institute Quarterly*, Summer, Vol. 4, No. 2, 1995.

Note: Figures relate to fiscal years beginning in April of the year shown.

fect is strengthened. According to projections by NRI, manufacturing subsidiaries' exports to Japan will increase sharply during the remainder of the decade, while their purchases from Japan will decline (table 28). The projected increase in sales to Japan is particularly notable for Asian subsidiaries. Purchases from Japan by North American affiliates will decline rapidly as a result of increased local procurement, whereas in Asia the decline is not as significant, because of the continued export of capital goods associated with Japanese FDI in the region. Overall, whereas in 1993 foreign subsidiaries of Japanese firms made around 40 per cent of the total purchases in Japan and sold around 7 per cent of their total output to Japan (a ratio of roughly 6:1), by the end of the present decade, this ratio is projected to fall to around 2:1. As a result, Japan's net trade with overseas subsidiaries, which was in the positive in 1992, is expected to be balanced in 1998 and register a deficit there after.

There have been few studies that systematically look at the relationship between Japanese domestic investment and FDI. However, it has been observed that "the decline in domestic nominal capital expenditure since 1992 has been accompanied by a decline in direct investments in North America

and Europe, but a continued increase in Asia. ... The data thus suggest that Japanese direct investments into Asia have acted very much as a substitute for investment in Japan, and are likely to continue at a strong pace, even as domestic economic growth is constrained by the yen's appreciation".³⁷

This conclusion finds some support in econometric estimates of the relationship between FDI and domestic investment in Japan. As described more fully in box 5, regression analysis suggests a structural break in this relationship in the 1980s. The estimates show that, until the late 1980s, total Japanese FDI was positively correlated with total gross fixed capital formation and that the correlation was even stronger in manufacturing. The correlation was reversed by 1988 in both cases. As would be expected, the break was much more pronounced for manufacturing than for total fixed investment, since the latter includes the secondary and tertiary sectors, which are much less affected by changes in exchange rates and relative prices. Thus, whereas during 1970-1988 each dollar of Japanese FDI in manufacturing was associated with about 3 cents of additional investment in domestic manufacturing, from 1988 onwards it was associated with a reduction of almost 6 cents.

H. Medium-term prospects and policy challenges for Japan

1. Growth and employment

The twin problems of a considerable burden of bad debt and loss of competitiveness pose serious structural problems for Japan. As noted above, the economy has gone through four successive years of growth recession, and unemployment reached an unprecedented 3.2 per cent at the end of 1995. Moreover, recorded rates understate the true extent of the employment problem, since a large number of the registered unemployed appear to have withdrawn from the labour market. Unlike most other major industrial countries, during the 1980s employment in manufacturing increased in Japan (table 29), but the sector has registered significant job losses for the first time since 1992, amounting to almost 0.5 million.

Growth and employment prospects are equally gloomy for the rest of the decade. Projections by NRI on the basis of three scenarios are shown in table 30. The standard scenario assumes a moderate but steady increase in the import penetration ratio, from about 14 per cent in 1994 to 21 per cent in 2000. In the slow increase scenario the import penetration ratio rises to about 17 per cent at the end of the decade, whereas in the rapid increase scenario it reaches 25 per cent. Common assumptions include a yen-dollar exchange rate of 100 and realization of the tax reforms planned for 1997.

Even under the "slow increase" scenario, the annual growth of GDP falls short of 2.5 per cent, while the unemployment rate nears 4 per cent. In this scenario the current-account surplus increases every year throughout the decade as a percentage of GDP. That, however, would in all likelihood lead to a further appreciation of the yen, which is inconsistent with the initial assumption about the exchange rate, thereby increasing the import penetration ratio and lowering growth. Thus, on the basis of recent trends and declared policy intentions, the growth rate is likely to remain below 2 per cent per annum and unemployment to exceed 4.5 per cent.³⁸ The slower growth of the labour

force due to the aging of the population now indeed comes as a relief in so far as the unemployment problem is concerned.³⁹

The outlook is thus for a much weaker economic performance. The economy grew at an annual rate of about 9 per cent until the first oil shock and at 4 per cent during the past two decades. There now appears to be the prospect of a further decline in the growth rate, which is expected to be halved once more. Such an outcome is not inevitable, but avoiding it requires tackling a number of difficult policy challenges.

2. Policy challenges

Perhaps the most important factor behind the postwar rapid industrialization of Japan was its ability to animate the "investment-profits nexus" - i.e. the dynamic interactions between profits and investment which arise because profits are simultaneously an incentive for investment, a source of investment, and an outcome of investment.⁴⁰ In that period, profits were the main source of corporate investment and accounted for an important part of gross domestic savings. A high share of profits in value added, as well as a high retention ratio, played an important role. During the 1960s gross operating surplus in manufacturing value added was around 55 per cent, compared to 25 per cent in the United States and United Kingdom and 35 per cent in the Federal Republic of Germany. High profits continued during much of the 1980s; for the decade as a whole the share of corporate profits in manufacturing value added in Japan exceeded 40 per cent, compared to less than 30 per cent in the other major industrial countries (table 29). Similarly, investment in manufacturing as a proportion of GDP has continued to be much higher than in those countries.

Until recently it was possible to maintain this investment-profits nexus without coming up against the problem of effective demand, because it was complemented by an investment-export nexus; ris-

Table 29

INDICATORS OF MANUFACTURING ACTIVITY IN JAPAN AND OTHER INDUSTRIAL COUNTRIES

(Average percentage share in 1980-1990)^a

<i>Indicator</i>	<i>United States</i>	<i>Germany</i>	<i>United Kingdom</i>	<i>Japan</i>
Employment in manufacturing (1980=100)	94.3	98.5	73.3	113.7
Share of manufacturing in total employment	20.0	34.7	25.0	27.2
Share of manufacturing in GDP	20.1 ^b	31.4	21.6	29.0
Share of manufacturing investment in GDP	7.9 ^c	8.5	8.2	11.2
Share of profits in manufacturing value added	27.6	26.1	24.3	43.1

Source: OECD, *National Accounts*, various issues.

a Except for employment in manufacturing (index numbers for 1990, 1980=100).

b 1981-1990.

c 1980-1989.

ing exports provided the outlet for the increase in production capacity in manufacturing that had resulted from a very high rate of investment. Indeed, for the economy as a whole exports grew twice as rapidly as investment from 1960 to 1985 in volume terms. The ratio of exports to GDP was under 10 per cent in the 1960s, rising rapidly after the first oil shock, and peaking at 15 per cent in the mid-1980s, before the first appreciation of the yen. Much of this increase was due to manufactures, exports of which indeed rose faster than output.

It now appears that this process is no longer sustainable. Japan has suffered loss of competitiveness in a number of industries as a result of the appreciation of the yen and the emergence of a number of high-productivity, low-wage competitors. It now has much less scope to respond by moving rapidly into higher-skill, higher-productivity sectors. Thus, Japan can no longer rely on the investment-exports nexus to the same extent as in the past in order to sustain the investment-profits nexus. Since capacity in such industries cannot be profitably utilized for exports at the prevailing pattern of world prices, relative wages and exchange rates, profits are squeezed, reducing both

the incentive for investment and the source of investment, and slowing down accumulation and growth.

A possible reaction could be to try to cut real wages in order to make up for the loss of competitiveness and regain the markets lost at home and abroad. But this would require a permanently large slack in the labour market, which can only be maintained if demand for labour is kept low; thus, it is a recipe for low growth and high unemployment. Moreover, the extent of wage deflation and unemployment needed may not be trivial since NIEs, including the latecomers, are advancing rapidly in terms of productivity and have considerably lower wages than Japan. Furthermore, as the projections above suggest, in such a low-growth, high-unemployment scenario the decline in the current-account surplus may not be sufficient to avoid triggering further upward pressures on the yen, thereby necessitating further unemployment and wage cuts.

Now that exports are no longer the driving force of private investment, domestic demand needs to replace them if the pace of accumulation and growth are to be maintained at a level compatible with full employment. What is needed, therefore,

Table 30

**PROJECTIONS FOR THE ECONOMY OF JAPAN: MAIN ECONOMIC VARIABLES UNDER
ALTERNATIVE IMPORT PENETRATION SCENARIOS**

(Percentage)

	Standard scenario			Slow increase scenario			Rapid increase scenario		
	Real GDP growth	Unemployment rate	Current account surplus ^a	Real GDP growth	Unemployment rate	Current account surplus ^a	Real GDP growth	Unemployment rate	Current account surplus ^a
1996	1.0	3.7	2.0	1.9	3.2	2.6	0.0	4.2	1.4
1997	0.5	4.4	1.7	1.5	3.6	2.6	0.2	4.9	1.1
1998	2.0	4.7	1.8	2.5	3.9	2.8	1.6	5.3	1.0
1999	2.4	4.7	1.9	2.9	3.8	3.1	1.9	5.4	0.9
2000	2.2	4.6	2.0	2.6	3.5	3.5	1.6	5.4	0.8

Source: As for table 28.

Note: For definitions and assumptions see text.

^a Percentage of nominal GDP.

is an increase, and not a decrease, in real wages so as to boost consumption. In the short run higher real wages are likely to result in a higher rate and mass of profits by allowing fuller capacity utilization and pro-cyclical improvements in labour productivity. Over the longer term, the Japanese economy is unlikely to regain the rates of accumulation and profits attained when exports were the driving force. However, an income redistribution from profits to wages could help to sustain a higher rate of accumulation and greater profits than are possible under the current pattern of income distribution and effective demand.

Such redistribution, together with a continued upgrading of industry, may help Japan to avoid the kind of de-industrialization involving substantial job losses in manufacturing that has been experienced by most other industrialized countries.⁴¹ However, it cannot expect to attain the same growth in manufacturing employment as in the past, since goods cannot simply be redirected from exports to the domestic market. It would be difficult to maintain the rate of output expansion of products such as automobiles and electronics, which

have so far accounted for an important share of total exports, since possibilities of absorption by the domestic market are limited. Thus, the pattern of investment needs to change, away from traditional manufactures towards high-tech goods and non-tradeable public and private services, including, as discussed in *TDR 1995*, public investment in infrastructure.⁴²

Judging from the recent debate in Japan, it appears that there is now a consensus that the problems faced are structural rather than cyclical, and that a major policy effort is needed to overcome them. Indeed, failure to act at an early stage may aggravate the problem considerably; a vicious circle could develop in the form of a low-growth, high-unemployment hysteresis discussed in *TDR 1995*. The experience of other major industrial countries shows that once allowed to persist, high unemployment and low growth can easily become structural features of the economy, even though initially they may have simply been conceived as temporary phenomena necessitated by adjustment to supply shocks. It is not inevitable that Japan take the same route.

I. Prospects for East Asian NIEs

In the context of the flying geese paradigm, a secular decline in growth in Japan can be expected to have important implications for the sustainability of the growth process in the East Asian NIEs. More specifically, if the advance of the lead goose falters, can the followers proceed at the same pace as before? Certainly, the answer to this question differs for the first- and second-tier NIEs and China, since their interaction with Japan in trade and FDI varies considerably.

As discussed above, the slowdown in Japanese growth has been associated with a considerable relocation of production in the second-tier NIEs through FDI. These inflows of FDI have been a major source of external financing for Malaysia and Thailand, which presently run substantial current-account deficits, reaching 8-10 per cent of GDP. The main questions related to the sustainability of a high rate of growth in these countries are thus to what extent they will continue to depend on such FDI inflows and whether the flows can be expected to continue over the coming years.

For two reasons the flow of FDI to the second-tier NIEs may not continue at its recent pace. First, part of the recent inflow from Japan represents a one-off adjustment to a sharp shift in competitiveness which is unlikely to be repeated. Second, a number of more attractive, low-cost locations have been emerging in South Asia which can divert an important part of FDI in labour-intensive manufactures by Japan and the first-tier NIEs. Thus, the second-tier NIEs may be unable to sustain large current-account deficits over the longer term; they need to reduce their trade deficits so as to minimize the risk of serious balance of payments problems and a sharp slowdown in growth. As discussed in the next chapter, much will depend on their success in enhancing their export potential through upgrading.

But what happens in Japan will also be important, involving both positive and negative elements. As discussed above, the slowdown in Japan has been taking place in the context of a sharp rise in imports from developing East Asia, and the

trade effects of Japanese FDI are expected to reinforce the tendency of the regional trade imbalances to narrow. However, over the long term continued slow growth in Japan will limit exports to that market.

As also pointed out above, the dependence of growth on Japanese FDI and exports to Japan is considerably less in the first-tier NIEs than in the second-tier. Moreover, they do not suffer, as do the second-tier, from large external deficits. At the moment they enjoy a relatively large trade surplus with Western Europe and North America in labour-intensive products while running a large deficit with Japan. However, the surplus may diminish rapidly or even disappear as wages in these countries rise. Moreover, although they are now beginning to export more sophisticated products to Western Europe and North America, the evolution of such exports may be subject to the same forces as have limited trade between those two regions, and have recently been affecting Japanese firms. Big firms from the first-tier NIEs, such as Daewoo and Samsung, are already going transnational and beginning to invest on a large scale in Europe and North America. Although some of this investment may initially stimulate exports of intermediate and capital goods from their home countries, a more important effect is likely to be an overall loss of exports.

A process can thus be envisaged very much like that currently faced by Japan: replacing potential exports to Europe and North America by FDI. Since the slowdown in Japan will eventually affect their exports to that market also, they may need to turn their attention to more dynamic markets in the South. In this respect, the further development of capital goods industries can present important opportunities not only to expand their exports to other developing countries, but also to reduce their dependence on capital goods imports from more advanced industrial countries.

Although it is an important recipient of Japanese FDI and its trade with Japan is significant, China is likely to be less influenced by the evolu-

tion of the Japanese economy than the second-tier NIEs. On the other hand, the behaviour of the Chinese economy itself will exert a strong influence over whether or not the recent growth momentum in East Asia can be maintained over the longer term. The sheer size of its economy suggests that any integration of China and the developing countries of East Asia is likely to be asymmetrical. Because of its enormous population, trade will never be as important for China as it is for the smaller countries around it. However, for the same reason, China can still be an important market for the smaller developing countries and an important supplier of manufactures. It enjoys a unique situation of combining an almost “unlimited” supply of unskilled labour with an adequate supply of highly-skilled labour to back up its industrialization process in the foreseeable future. Rising wages of unskilled labour in the

industrializing coastal region of China are likely to be held in check by inward migration from the rest of the country. Consequently, labour-intensive manufactures and non-traded services can be kept relatively cheap and the cost of living kept low in the coastal region, which, in turn, can allow skilled workers to enjoy a comparatively high standard of living, with earnings which are nevertheless low by international standards. Taken together, these factors allow China to attain much greater diversification at an earlier stage of development than did the NIEs, producing sophisticated manufactures, including capital goods, as well as labour-intensive products. As discussed in chapter III, a rapid shift to more sophisticated exports by China and the first-tier NIEs could create important opportunities for South-South trade and lessen the dependence of developing countries on trade with the North. ■

Notes

- 1 Unless otherwise specified, the designation “East Asia” will be used throughout Part Two of this report to refer to the whole region, including Japan, the first-tier NIEs, the second-tier ones (Indonesia, Malaysia and Thailand) and China. The term “ASEAN-4” refers to the three second-tier NIEs and the Philippines.
- 2 The flying geese paradigm was originally formulated in the 1930s, when Japan was still a comparatively poor country, seeking to catch up with the more industrialized countries of Europe and America. The original formulation was by K. Akamatsu in 1932, in an article (in Japanese) entitled “The Synthetic Principles of the Economic Development of our Country”. Few of Akamatsu’s writings on this subject are available in English. A notable exception is “A Historical Pattern of Economic Growth in Developing Countries”, *The Developing Economies*, Vol. 1, No.1, March-August 1962. For a further discussion of the evolution of this paradigm, see UNCTAD, *World Investment Report 1995* (United Nations publication, Sales No. E.95.II.A.9), box V.4, and P. Korhonen, “The Theory of the Flying Geese Pattern of Development and its Interpretations”, *Journal of Peace Research*, Vol. 31, No. 1, 1994.
- 3 The original formulation of the flying geese paradigm described the change in industrial structure over time, starting with a concentration on labour-intensive textile industry, shifting gradually to more demanding activities, such as the chemical industry, then further to steel and automobiles and so on. As the scale of each industry rises to a peak in this process before gradually disappearing due to loss of competitiveness, successive stages are described as inverted V-shaped curves; hence the metaphor of flying geese. Subsequently, this metaphor has also been used to describe the shift of industries from one country to another, with the inverted V-shaped curves representing the evolution of the same industry in different countries over time.
- 4 These themes have been developed by K. Kojima in a number of articles: “Reorganization of North-South Trade: Japan’s foreign economic policy for the 1970s”, *Hitotsubashi Journal of Economics*, Vol. 13, No. 2, Feb. 1973; “A macro-economic Approach to Foreign Direct Investment”, *ibid.*, Vol. 14, No.1, June 1973; “International Trade and Foreign Investment: Substitutes or Complements”, *ibid.*, Vol. 16, No. 1; “Macroeconomic versus International Business Approach to Direct Foreign Investment”, *ibid.*, Vol. 23, No. 1, 1982; and “Japanese and American Direct Investment in Asia: A Comparative Analysis”, *ibid.*, Vol.26, No.1, June 1985. See also K. Kojima and T. Ozawa, “Micro- and Macroeconomic Models of Direct Foreign Investment:

- Toward a Synthesis”, *ibid.*, Vol. 25, No.1, June 1984; T. Ozawa, “The Flying Geese’ Paradigm of FDI, Economic Development and Shifts in Competitiveness”, mimeo. (Geneva: UNCTAD, 1995); and P. Phongpaichit, *The New Wave of Foreign Direct Investment in ASEAN* (Singapore: Institute of South-east Asian Studies, 1990).
- 5 See, for example, *Overview of the Policies Towards Small- and Medium-Sized Enterprises* (in Japanese), annual report (1990) of the Agency for Small and Medium-Sized Enterprises (Tokyo: Government of Japan, 1990), p. 64.
- 6 Ministry of Foreign Affairs, *Japan’s ODA 1994: Annual Report*, Tokyo, 1995, p. 27.
- 7 D. Unger, “Japan’s Capital Exports: Moulding East Asia”, in D. Unger and P. Blackburn (eds.), *Japan’s Emerging Global Role* (Boulder, Colorado: Lynne Rienner, 1993).
- 8 For a recent discussion of this issue see Ha-Joon Chang and Robert Rowthorn (eds.), *The Role of the State in Economic Change* (Oxford: Clarendon Press, 1995).
- 9 UNCTAD, *World Investment Report, 1995, ...*, p. 134.
- 10 These issues are discussed in greater detail in *Multinationals and the National Interest* (Washington, D.C.: Office of Technology Assessment, United States Congress, September 1993). See also M. Panic, “Transnational Corporations and the Nation State”, paper presented at a UN/WIDER Conference on “Transnational Corporations and the Global Economy” held at King’s College, Cambridge, September 1995.
- 11 See A.H. Amsden, *Asia’s Next Giant : South Korea and Late Industrialization* (New York: Oxford University Press, 1989); and “The Diffusion of Development: The Late-Industrializing Model and Greater East Asia”, *The American Economic Review*, Vol. 81, 1991.
- 12 See J.E. Roemer, *U.S.-Japanese Competition in International Markets: A Study of the Trade-Investment Cycle in Modern Capitalism*, University of California at Berkeley, Institute of International Studies, Research Series, No. 22, 1975.
- 13 While Roemer does not attempt to present these stages as a unified theory of trade and investment, his analysis is an extension, at the macroeconomic level, of the “FDI follows trade” hypothesis that many authors have favoured, including: S.H. Hymer and R.E. Rowthorn, “Multinational Corporations and International Oligopoly: The Non-American Challenge”, in C. Kindleberger (ed.), *The International Corporation* (Cambridge, MA: Harvard University Press, 1970); J.H. Dunning, “The Determinants of International Production”, *Oxford Economic Papers*, Vol. 25, 1973; and G.C. Hufbauer, “The Multinational Corporation and Direct Investment”, in P.B. Kenen (ed.), *International Trade and Finance* (Cambridge, MA.: Harvard University Press, 1975). In this context outsourcing through FDI implies a general loss of competitiveness, rather than loss of firm-specific advantage, as described in box 4.
- 14 See R.E. Rowthorn and J.R. Wells, *De-industrialization and Foreign Trade* (Cambridge University Press, 1987).
- 15 The figures in table 21 for the stock of FDI are cumulated annual outflows of FDI valued at historical cost. They do not include reinvested earnings of subsidiaries and foreign investment financed in the capital markets of the host or third countries; historical series including such data are not available for Japan.
- 16 The information in this paragraph is from MITI, *White Paper on International Trade 1994*, Tokyo, 1994.
- 17 UNCTAD, *World Investment Report, 1995, ...*, table II.3.
- 18 P. Harrod and R. Lall, *China: Reform and Development in 1992-93*, World Bank Discussion Paper, No. 215, Washington, D.C., 1993, p. 24.
- 19 See Tain-Jy Cheng, *Taiwan’s SME Direct Investment in Southeast Asia*, Chung-Hua Institution for Economic Research, Taipei, 1995.
- 20 See *TDR 1986*, chap. IV, sect. C, and *TDR 1988*, Part One, chap. II, sect. C.
- 21 This practice among the Japanese exporters to lower (raise) profit margins whenever their competitiveness is declining (increasing) is reflected by the disparities in the amplitudes of variations in relative unit labour costs and relative export prices - see M. Durand, J. Simon and C. Webb, “OECD’s Indicators of International Trade and Competitiveness”, *OECD Economics Department Working Paper*, No. 120, 1992, p.12; and R.C. Marston, “Price Behaviour in Japanese and U.S. Manufacturing”, *NBER Working Paper*, No. 3363, May 1990. Japanese exporters have been found to absorb as much as half of the real appreciation of the yen between 1985 and 1988 (*OECD Economic Surveys: Japan 1990-1991* (Paris: OECD, 1990), p. 56).
- 22 According to a study by OECD, the profitability of Japanese sales of automobiles in the United States market rose by 12 percentage points in the early 1980s as a consequence of voluntary export restraints (*Costs and Benefits of Protection* (Paris: OECD, 1985), p.17).
- 23 See *TDR 1987*, Part One, chap. D.1, and chap. II, sect. B.2.
- 24 *NRI Quarterly Economic Review*, Vol. 17, No. 4, November 1987, p. 18.
- 25 See *TDR 1989*, Part One, chap. III, sect. B.1, and *TDR 1990*, Part Two, chap. III, sect. B. According to the Economic Planning Agency of Japan, about 30 per cent of Japanese exports to the United States underwent some form of trade restriction in 1989; see *OECD Economic Surveys: Japan 1990-1991*, p. 131, table A2.
- 26 For a fuller discussion of these developments see *TDR 1991*, Part One, chap. III; and *TDR 1993*, Part Two, chap. IV.

- 27 H. Kohama and S. Urata, "The Impact of the Recent Yen Appreciation on the Japanese Economy", *The Developing Economies*, Vol. 24, No. 4, 1988; and K. Takeuchi, "Does Japanese Direct Foreign Investment Promote Japanese Imports from Developing Countries?" (Washington, D.C.: The World Bank, 1990), International Economics Department, *Working Paper WPS 458*.
- 28 For the recent surge in FDI by Taiwan Province of China see Chien-nan Wang, *Globalization, Regionalization and Taiwan's Economy*, Chung-Hua Institution for Economic Research, Taipei, 1994; and Tain-Jy Cheng, *op. cit.*.
- 29 See Y.H. Shin and You-Il Lee, "Korean Direct Investment in Southeast Asia", *Journal of Contemporary Asia*, Vol. 25, No. 2, 1995.
- 30 For a fuller analysis of the origin and effects of the debt deflation process in Japan and elsewhere see *TDR 1991*, Part Two, chap. II; *TDR 1992*, Part Two, chap. II; and *TDR 1993*, Part Two, chap. I.
- 31 In fact, the appreciation of the yen took place in two steps; first it rose to a parity of 100 to the dollar, where it stayed until early 1995, and then to 79 in the latter year before falling back again to around 100.
- 32 T. Klitgaard, "Coping with the Rising Yen: Japan's Recent Export Experience", *Current Issues in Economics and Finance* (Federal Reserve Bank of New York), Vol. 2, No. 1, January 1996.
- 33 According to a survey conducted by the Japan External Trade Organization (JETRO) in 1995 among 583 large companies on measures taken to cope with yen appreciation, more than 80 per cent had been cutting costs, 60 per cent developing high value-added products, and 40-50 per cent procuring finished or intermediate goods from abroad, half of which from overseas affiliates, particularly in Asia. Over one third had expanded production abroad, and another 40 per cent contemplated doing so, of which 51 per cent in China, 42 per cent in ASEAN-4, and 11 per cent in the United States. See JETRO, Japan External Trade Organization, *White Paper on International Trade, 1995 (Summary)*, Tokyo, July 1996 (<http://www.jetro.go.jp>).
- 34 These estimates distinguish three effects. The *export-inducing* effect arises from an increase in exports of capital goods and other products associated with a greater FDI outflow, largely as inputs into foreign production. The *export-substituting* effect is the substitution of previously exported goods by local production abroad. The *reverse-import effect* arises from supplying the Japanese market from foreign instead of domestic plants. There is also a secondary *import displacement effect* that occurs because reduced domestic production and exports lower the need for imports of raw materials. For a fuller discussion of these estimates see *TDR 1995*, Part Three, chap. II, sect. D.
- 35 See C.H. Kwan, "Asia's New Wave of Foreign Direct Investment", *Nomura Research Institute Quarterly*, Winter, Vol. 3, No. 4, 1994 (<http://www.nri.co.jp>).
- 36 Y. Takao and N. Nemoto, "Long-term Outlook: Japan's Economy in an Era of Structural Change", *ibid.*, Summer, Vol. 4, No. 2, 1995.
- 37 Takao and Nemoto, *op. cit.*, chap. 2.
- 38 *NRI Quarterly Economic Review*, Vol. 25, No. 4, November 1995.
- 39 This is not to say that an ageing population presents no "financial" problems. Indeed, if the economic problem is not solved, the financial problem can be exacerbated.
- 40 For a fuller discussion of the role of the profits-investment nexus in East Asian industrialization see *TDR 1994*, Part Two, chap. I, sect. G; and Y. Akyüz and C. Gore, "The Investment-Profits Nexus in East Asian Industrialization", *World Development*, Vol. 24, No. 3, 1996.
- 41 In other words, Japan may enter a phase of what has been called "positive" de-industrialization, where employment in manufacturing is reduced either absolutely or relatively, but without creating unemployment because new jobs are forthcoming in services; see R.E. Rowthorn and J.R. Wells, *op. cit.*. Japan does not have to lose jobs in manufacturing in absolute terms if it can maintain an annual growth rate around 3 per cent; indeed, manufacturing employment rose by almost 14 per cent from 1980 to 1990, when the growth rate averaged about 4 per cent (table 29). Germany provides another example; in that country (the former Federal Republic) the share of manufacturing in total employment fell only slightly since the 1960s, but with the rise in overall unemployment since 1974 there has been a loss of jobs in manufacturing, where employment fell by some 10 per cent. Certainly, this could have been avoided if demand for labour had grown by 1 percentage point faster; GDP growth averaged almost 4.5 per cent during 1960-1973 and 2 per cent thereafter.
- 42 A recent proposal has identified 11 areas of business activity as new growth industries: housing; information and communication; energy; environment; health care and social services; new distribution network; culture and leisure; urban environment; international exchange; human resource training; and business support. See Y. Kimura, "Japan's New Growth Industries", *Nomura Research Institute Quarterly*, Spring 1995, Vol. 4, No. 1, 1995 (<http://www.nri.co.jp>).

EXPORTS, CAPITAL FORMATION AND GROWTH

A. Introduction

The debt crisis of the early 1980s triggered a critical reassessment of existing development strategies, as a result of which adjustment programmes in many developing countries turned away from more inward-oriented policy approaches. Over the course of the decade, the contrast in economic performance between the newly industrializing East Asian economies and most other developing countries was regarded as a confirmation of the growth potential of more outward-oriented approaches. The impetus given to the liberalization of world trade by the conclusion of the Uruguay Round has underpinned this general reorientation of development strategies.

Encouraging domestic firms to compete in international markets has consequently become a firmly established objective of policymakers in most developing countries. There is also a much greater recognition of the vital need in most developing countries to secure a rapid growth of exports in order to expand their industrial output, since they lack adequate capital goods and intermediate goods industries, and attempts to establish such industries in the earlier stages of development can give rise to serious inefficiencies. Moreover, defending inefficient domestic industries through high levels of protection is no longer seen as an appropriate response to competition from imports. However, the question of specific policy measures in support of more outward-oriented development strategies continues to provoke considerable disagreement.

Some analysts contend that rapid and complete liberalization is sufficient to accelerate development. Others, while fully acknowledging the central role of outward orientation and the importance of market forces, consider that there is a continuing need for government policies designed to shape market responses so as to maximize their contribution to development. A key issue determining the dynamics of outward orientation (or absence thereof) is the capacity to translate increased export revenues into investment in new lines of production and implement a consistent strategy of industrial upgrading.¹ The process of regional economic integration in East Asia discussed in the previous chapter already suggests that it was a mixture of policy intervention and market forces which ensured that rapid capital accumulation and technological progress were matched by an equally rapid pace of export growth and diversification.

This chapter discusses the links between exports, industrialization and economic growth in light of the East Asian experience. The next section examines the export-investment nexus as a crucial element in outward-oriented growth, and highlights some of the differences around common trends in the economies of East Asia. Sections C and D consider in more detail the evolution of exports in these economies, including important differences among them in terms of the diversification and upgrading of their export structure and

their penetration of northern markets. Section E identifies specific policy measures behind their successful

export-investment nexus, including policies used to increase, diversify and upgrade exports.

B. The export-investment nexus

1. Why export?

Exports play a major role in industrialization and economic growth, but their role can be envisaged in a number of ways. In the mainstream analysis, the case for linking exports to industrialization and growth relates greater openness and competition in international markets to improved efficiency, which is expected to result not only from better resource allocation in the economy (allocative efficiency), but also, through the effects of competitive pressures, from better use of resources at the level of the firm (cost or X-efficiency).²

Another linkage between exports and growth is through market size. This was the essence of Adam Smith's assertion that the division of labour was limited by the extent of the market. In its most basic form, access to world markets provides a "vent for surplus" for developing countries, allowing them to take advantage of formerly underutilized land and labour to produce a larger volume of primary products, the surplus of which can be exported. Similarly, as industrialization progresses, firms can confront a range of technological and organizational constraints stemming from the fact that the minimum efficient scale of production far exceeds that required merely to meet the prevailing level of domestic demand. Exports help to overcome these constraints by allowing economies of scale at the firm level that can be secured from mass production techniques, as well as by providing a range of externalities arising at the industry level, including economies of specialization and agglomeration.³ In addition, positive impulses from exports can emerge as a result of productivity-enhancing spillovers.⁴ In all these respects, exporting manufactures may bring dynamic advantages, linked to faster economic growth

through a virtuous circle of higher demand, greater investment and increased productivity growth.⁵

While much of the theoretical literature on the rationale for exports emphasizes efficiency gains and productivity increases, in practice perhaps the most important factor underlying an export drive in developing countries has been the need to overcome the balance of payments constraint. In building up their industrial capacity and competitive strength all newly industrializing countries must import a large volume of capital goods and intermediate goods. Thus, in an economy where investment is growing both in absolute terms and as a proportion of GDP, such imports will also need to grow faster than GDP and the financing of these imports may pose a serious constraint on the industrialization process if additional export revenue cannot be obtained.

The dependence of developing countries on foreign technologies embodied in imported capital goods is perhaps greater during the initial stages of industrialization. However, the need for large-scale imports of machinery and equipment continues throughout much of the industrialization process, especially when, as in East Asia, catching up is based on imitating technological leaders.⁶ Even if domestic industries producing capital goods and intermediate inputs are gradually established to supply existing industries, as the economy moves up the technological ladder and establishes new industries and product lines, there will continue to be need for a considerable volume of imports of such goods. And the faster the pace of this upgrading and technological advance, the greater is the likely dependence thereon. Clearly, the speed at which a domestic capital goods industry is established, develops and becomes internationally competitive is critical in respect of the balance of payments constraint. Much also depends, *inter*

alia, on the size of the economy, since larger countries can more easily establish and develop capital goods industries on account of their large domestic market, which permits an efficient scale of production and associated economies.

In an economy without a significant capital goods industry, both investment and savings depend on exports. Investment does so to the extent that imports of capital goods require export earnings. But exports are not the only means of financing such imports; remittances from abroad or capital inflows, for example, are other sources of foreign exchange.⁷ The dependence of savings on exports is much greater in such an economy. In the absence of exports, industry will have to rely on domestic demand to sell its output. When this output consists mainly of consumer goods, as is typically the case in a developing country, the only way to expand output is by increasing domestic consumption. But if output and income rise only to the extent that there is a rise in consumption, there cannot be any increase in savings.

True, capital goods imports needed for expanding capacity to produce consumer goods can be met for a time by inflows of foreign exchange from sources other than exports, as mentioned above. However, such an expansion cannot continue indefinitely, since before long it inevitably comes up against the balance of payments constraint. Clearly, while export growth is a necessary condition for domestic savings to rise, it is not a sufficient condition, since export earnings can also be used to import consumer goods or inputs for their production.

In sum, these considerations suggest that for growth to be sustained exports need to expand, thereby allowing domestic industry to operate at full capacity, or to expand it, without relying solely on domestic consumer demand. But since export expansion in turn depends on the creation of additional production capacity in industry, as well as on productivity growth, and hence on new investment, a sustainable growth process requires mutually reinforcing dynamic interactions among savings, exports and investment. Such a process will be characterized by continuously rising exports, domestic savings and investment, both in absolute terms and, during the greater part of the industrialization process, as a proportion of GDP. Initially, investment is likely to exceed domestic savings by a large margin, the difference being financed by net inflows of capital. However, over

time, the external gap should narrow as exports and savings grow faster than investment.

2. Savings, investment and exports in East Asia

The evolution of investment, savings and exports in all the first-tier NIEs during the past three decades corresponds closely to the pattern of sustainable growth outlined above. During the 1950s gross national savings were less than 4 per cent of GDP in the Republic of Korea and less than 10 per cent in Taiwan Province of China, whereas the investment ratio was nearly three times as high as the national savings ratio in the former instance and almost twice as high in the latter (see table 31). Accordingly, during that period foreign savings financed two thirds of gross domestic investment in the Republic of Korea and 40 per cent in Taiwan Province of China. In both economies, investment rose rapidly in the 1960s and 1970s, and exceeded 30 per cent of GDP by the early 1980s. While the share of investment has since continued to rise in the Republic of Korea, it has declined quite sharply in Taiwan Province of China. Over the entire period 1951-1994, in both cases domestic savings rose much more rapidly than investment. They tripled in Taiwan Province of China, with the result that the economy became a net capital exporter. In the Republic of Korea, by the early 1990s the savings ratio had risen to more than 10 times the level in the 1950s, reaching over 30 per cent and closing the gap with investment. In both instances exports, too, expanded faster than investment. In Hong Kong and Singapore, savings have also risen much faster than investment, though the increase has been particularly rapid in Singapore.

Among the second-tier NIEs, the evolution of exports, savings and investment in Indonesia closely resembles that of the first-tier NIEs. The average annual share of investment in GDP tripled from the 1960s to the early 1990s, reducing the contribution of foreign savings to financing domestic investment from more than 50 per cent to around 10 per cent. The export share has closely tracked this rising share of investment. However, in all these respects Indonesia has yet to reach the levels achieved earlier by the first-tier NIEs. As in Indonesia, the sharp rise in the share of investment came later in Malaysia and Thailand than in the first-tier NIEs. But in contrast to Indonesia, it has in

Table 31

GROSS NATIONAL SAVINGS, GROSS DOMESTIC INVESTMENT AND EXPORTS IN THE ASIAN NIES, 1951-1994

(Percentage of GDP)

Period	Republic of Korea		Taiwan Province of China		Hong Kong		Singapore		Indonesia		Malaysia		Thailand						
	Savings	Investment Exports	Savings	Investment Exports	Savings	Investment Exports	Savings	Investment Exports	Savings	Investment Exports	Savings	Investment Exports	Savings	Investment Exports					
1951-1960	3.3	10.0	2.0	9.8	16.3	9.6	9.2	9.1	...	11.4 ^a	...	9.2 ^a	13.6 ^a	23.2 ^b	15.3 ^a	51.4 ^a	15.3	13.5	18.3
1961-1970	13.7	20.0	9.1	19.7	21.9	20.4	20.6	20.6	14.9	22.3	4.9	10.4	9.7	21.5 ^c	19.9	42.3	19.9	21.5	16.2
1971-1980	22.0	28.0	27.6	31.9	30.5	46.4	28.3	26.7	28.9	41.2	24.6	22.7	23.6	26.2	26.3	46.4	22.4	26.2	20.0
1981-1990	30.4	30.7	35.4	32.9	21.9	53.5	34.0	24.8	42.1	42.1	25.1	28.3	24.6	27.4	30.7	60.1	26.2	30.7	26.8
1991-1994	34.7	37.1	28.6	27.4	23.2	46.1	34.0	27.6	48.9	36.3	26.9	29.7	27.0	30.0	36.1	82.7	33.7	40.5	36.9

Source: UNCTAD secretariat calculations, based on national and international sources; and J. Riedel, "Economic Development in East Asia: Doing What Comes Naturally?", in H. Hughes (ed.), *Achieving Industrialization in East Asia* (Cambridge University Press, 1988), table 1.5.

Note: Exports include services.

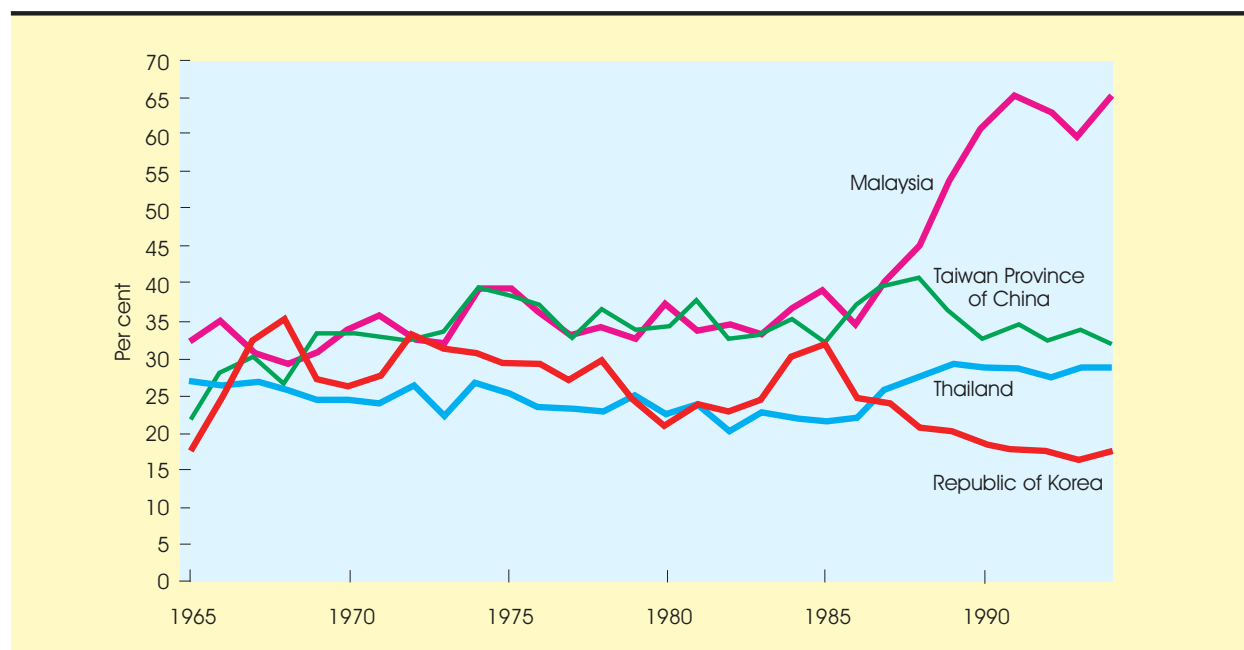
a 1960 only.

b Including Singapore, which became independent in 1965.

c 1965-1970.

IMPORTS OF CAPITAL GOODS IN SELECTED NIEs, 1965-1994

(Percentage of gross domestic investment)



Source: UNCTAD secretariat calculations, based on national accounts and United Nations, *Commodity Trade Statistics* tapes.

both countries caught up with - and in Thailand even surpassed - the first-tier NIEs. However, the gap between domestic savings and investment is still widening, raising the question of sustainability, which is discussed further below. In both countries, exports have generally kept pace with investment since the 1960s.

An important part of the increase in domestic savings in East Asian NIEs has come from corporate profits. Indeed, the role of corporate savings in general appears to be a distinguishing aspect of the development strategy in those countries. As discussed in greater detail in section E, Governments in East Asia used both the carrot and the stick in order to create and sustain a dynamic *investment-profits nexus*.⁸ Equally important, policymakers have also been successful in building complementary links to the *export-investment nexus*. Expansion of exports enabled increased profits to be made without the need for domestic consumption to rise so as to keep up with the growth of production capacity, thereby allowing the savings rate to rise. Exports also provided the foreign exchange needed to expand productive ca-

capacity through imports of capital goods, thereby easing the balance of payments constraint which has held back industrialization efforts in many other developing countries.

The pattern of imports in the East Asian NIEs is broadly consistent with a sustainable export-investment nexus. All these economies have relied heavily on imported capital goods at crucial stages of their industrialization (see chart 4). In both Taiwan Province of China and the Republic of Korea imports of capital goods as a proportion of gross domestic investment rose until the mid-1970s, a period dominated by labour-intensive exports, followed by a sharp fall in the Republic of Korea and a more gentle one in Taiwan Province of China which coincided with the maturing of their domestic capital goods industries. A new wave of capital goods imports came in the early 1980s as these countries shifted their economic structures to a new generation of industrial activities, before the ratio fell again in the 1990s.

The pattern is less clear in the second-tier NIEs. In those countries, imported capital goods

were already important under import-substitution industrialization in the mid-1960s. However, as a proportion of domestic investment such imports were fairly stable until the mid-1980s, when these countries shifted to export-oriented manufacturing

and started to import capital goods on a large scale. What is now important is whether in these countries, particularly Malaysia, domestic capital goods industries will be able to substitute for such imports at later stages in their catching-up process.

C. Structural changes in the pattern of East Asian exports

1. Export dynamics

In the earliest stages of economic development exports consist largely of primary commodities, including food products and raw materials, while imports comprise mainly manufactures, both capital goods and labour-intensive products. But where a country has become an established commodity exporter the obvious next step is to begin processing the commodities for export. Not only does diversification along these lines enable it to take advantage of the generally higher price elasticity of demand for and the less volatile prices of more processed products, but also it can provide additional demand for agricultural products, raise income levels and employment, and promote the development of an internal market. Moreover, the resulting increase in export earnings provides a potentially important source of foreign exchange earnings. Nevertheless, to the extent that diversification in this sector does offer early industrialization opportunities, export success will depend on appropriate industrial and technology policies (see the annex to this chapter).

In any case, the possibilities of accelerating development through deepening and diversification in the primary sector are limited.⁹ For the vast majority of developing countries, sustained economic growth requires a shift in the structure of economic activity toward the production and export of manufactured goods. In most countries, import substitution allows manufacturing industries to be established initially for traditional labour-intensive products, which are the obvious candidates for the first generation of manufactured exports. But, by definition, developing countries have at this stage a limited capacity to transform

resources because of a shortage of specialized industrial skills, lack of technical knowledge, scarcity of capital and narrow domestic markets. All these factors have a direct bearing not only on the range of manufacturing activities open to them, but also on their chances of success in international markets. Much thus depends critically on whether, and how fast, these limitations can be overcome; initial resource advantages can only be fully exploited if accompanied by rapid investment and attendant productivity growth.

As incomes increase and the domestic market begins to grow, rising labour costs and the entry of lower-cost producers progressively erode the export competitiveness of many labour-intensive manufactures. This can be offset, in part, by new investment and export opportunities in higher-level niches in traditional industries, such as textiles and clothing, created through improved design and marketing. However, a new set of challenges emerges around the upgrading of industrial activity so as to produce and export intermediate goods and capital goods as well as more sophisticated consumer goods. This move away from resource-dependent and labour-intensive activities towards more technology- and skill-intensive activities is well established, and because it coincides with a shift towards trading partners at a similar level of development, intra-industry trade takes a growing share of exports.

As discussed in greater detail in previous issues of *TDR*, it is not generally possible to rely on market forces alone to move economies through these various stages of industrialization and export orientation, on account of a number of market failures related to externalities, problems of coordination, imperfect and asymmetric information,

economies of scale, missing markets and imperfect competition. Since these factors impose themselves on the pace and direction of the industrialization process, the question of how best to manage this process gains in importance.¹⁰

Considerable policy effort is already required even at the initial stages of industrialization and export promotion, where competitiveness derives from abundant labour and natural resources. However, policy challenges increase considerably as the production process becomes more scale- and knowledge-intensive, since the technological and organizational capabilities required to compete internationally become more exacting, more difficult to master and more costly to acquire, and the investment climate becomes more uncertain.¹¹

This process of building up these capabilities is particularly difficult in developing countries. Often, the learning requirements associated with a new generation of production techniques are more intangible, involving training and capability building at the firm level. However, firm-level capabilities do not develop in isolation but, in many industries, operate in a dense network of formal and informal relationships with suppliers, customers, competitors, consultants and technology research and educational establishments. Moreover, the international technology market in these industries is often oligopolistic and fragmented, and the leading suppliers possess considerable market power. In this context, the dangers of market failures, missing markets and other coordination bottlenecks can lead to a cumulative process of falling behind.¹²

In the early stages of development, FDI can contribute to development by creating employment, facilitating the transformation of natural resources into current revenue, and generating foreign exchange. The precise nature of its contribution will depend, of course, on how the current revenue and foreign exchange earnings are utilized. However, from a dynamic perspective the important issues concern the place of TNCs in the export-investment nexus as economies seek to upgrade.

Access to foreign technology is a critical part of upgrading in most developing countries. Other organizational assets located abroad, such as marketing and distributional skills, can also be important, particularly when an export-oriented strategy is being pursued. Access to these assets can be gained through a variety of channels, such

as licensing and purchase of original equipment manufacture in the case of technology, and subcontracting in the case of distribution networks. However, the essential advantage of hosting FDI is that, in addition to capital, it brings a bundle of assets and capabilities which are already fully operational and so may allow a much more rapid entry into the international division of labour.

The advantage that this brings to host countries will depend, in part, on the degree of control that TNCs retain over their assets.¹³ Such control may limit or totally prevent the development of an indigenous production and export capability. Whereas some assets of TNCs, such as skills, product design, and knowledge of international markets, can be captured in a variety of ways by domestic producers (e.g. through reverse engineering, the movement of employees and information gathering), the extent to which they spill over appears to be industry-specific.¹⁴ Consequently, the choice of which industries or parts of industries to host is likely to be an important one for developing countries seeking to upgrade with the assistance of TNCs. Moreover, whether such spillovers can become the basis of a broader development depends upon the kinds of incentives made available as well as the relative bargaining power of TNCs and host-country Governments. This is particularly true for technological assets, where TNCs have strong economic reasons to keep innovative work centralized at home or in a few advanced countries and where government efforts to build domestic capacities can generate a potential conflict of interest with foreign producers.¹⁵ For both these reasons, the way in which domestic policymakers manage FDI, including its function in the export-investment nexus, is likely to be critical in determining its contribution to longer-term development and growth.

Recent developments in technology and related changes in TNC strategy have complicated this relationship between FDI, exports and upgrading. In particular, in many industries it is becoming possible for TNCs to single out specific activities in the production chain according to skill, technology and capital intensity, match these activities to specific country advantages and locate and coordinate them through a network of interconnected affiliates in such a way as to enhance overall corporate profits. As a result, developing countries may be able to enter more easily the international division of labour by attracting the least skill- and technology-intensive parts of this TNC-centred production chain.

The extent to which this process has already progressed is a matter for further empirical research. More importantly, it seems likely that, with geographically dispersed production sites, the spillovers from hosting FDI are reduced because the package of technology and skills required at any one site is narrower and because cross-border backward and forward linkages are strengthened at the expense of domestic ones. Moreover, when only a small part of the production chain is involved, TNCs have a wider choice of potential sites, since these activities take on a more footloose character, thereby strengthening their bargaining position vis-à-vis the host country. Indeed, as suggested in a recent study, it is far less likely under these conditions that increased FDI flows to developing countries will automatically lead to the kind of technological upgrading necessary for industrialization and long-term economic growth.¹⁶

In the absence of policies promoting such upgrading and spillovers, heavy reliance on FDI may also result in serious payments problems. Even when FDI is in productive facilities requiring large imports of specialized semi-finished goods for domestic assembly using unskilled labour, with only very weak backward linkages with domestic suppliers, the additional net foreign exchange earnings generated may still be sufficient to cover the profit earned on the investment, so long as the bulk of the assembled goods are exported. If, however, too large a part is sold in the domestic market, they will be insufficient. In any case, to the extent that the economy has come to depend on such FDI, including the reinvestment of profits, to finance its current account deficit, whatever its origin, it will face the likelihood of a payments crisis. Without upgrading and the establishment of strong backward linkages with domestic suppliers, so as to raise the domestic value added content of exports in industries where foreign firms predominate, FDI will tend to remain footloose. In consequence, the flow of FDI, including the reinvestment of TNC profits, may dry up as the capital seeks low-cost locations elsewhere.

2. Exploiting initial advantages

Exports from the first-tier NIEs today consist mainly of manufactures. However, the Republic of Korea and Taiwan Province of China, unlike Singapore and Hong Kong, were essentially rural economies until the mid-1960s, with primary

commodities constituting the bulk of their exports.¹⁷ In the 1950s, both economies began to diversify away from crude agricultural and mineral exports to processed resource-based products; canned food from Taiwan Province of China, for example, found a large market in the United States, and the Republic of Korea moved from exports of iron ore to processed iron and steel, which by 1965 accounted for close to 8 per cent of its total exports.

The path followed by the East Asian countries in this early phase of their development resembled that of many other countries. Import substitution industries emerged in activities where local resources, including labour, could be quickly mobilized and where domestic demand could be generated. But for industrialization to proceed at a fast pace, it was essential to find export markets for domestically produced goods in order to alleviate the balance of payments constraint on investment.

What distinguished the Republic of Korea and Taiwan Province of China from other developing countries was the pace at which export growth of labour-intensive manufactures was achieved, especially in textiles and clothing, as had earlier been the case in Hong Kong, and in wood and paper products. According to estimates of the UNCTAD secretariat, in both economies labour-intensive exports as a share of their domestic production rose steadily and rapidly from the mid-1960s, reaching 60 per cent in the early 1980s, and soon accounted for the bulk of exports, although in the Taiwanese case resource-intensive manufactures remained important. In line with this expansion of low-skill, labour-intensive output, the share of primary commodities in total exports fell rapidly in both economies - to 18 per cent in 1975 in the Republic of Korea and 20 per cent in Taiwan Province of China.

The second-tier NIEs, by contrast, have had the advantage of much richer natural-resource endowments. They had much less need to rely on low-skill, labour-intensive sectors, since they were able to meet their foreign exchange requirements from their exports of primary commodities. Such exports still account for almost one third of total export earnings (other than fuels). There was initially considerable scope to accelerate growth through diversification and increased processing of natural-resource-based products. In Malaysia indigenous, agriculture-based technologies have been developed in a comprehensive manner with a

view to reducing the share of unprocessed primary products in total exports. There has been successful diversification into palm-oil, rubber and cocoa processing, as well as wood and paper. Indonesia has succeeded in moving from the export of wood and paper raw materials to the export of wood and paper manufactures.

Beginning in the early 1970s, the second-tier NIEs also developed those export-oriented manufacturing industries where lower labour costs gave them a competitive edge. While the development of traditional low-skill, labour-intensive industries played a relatively minor role in Malaysia - which in this respect resembled Singapore - both Indonesia and Thailand followed the path taken earlier by the Republic of Korea, Taiwan Province of China and Hong Kong, with textiles, clothing and footwear becoming the most important manufactured exports. However, in Indonesia the process only began in the 1980s, when the domestic textiles, clothing and footwear industries turned their attention to export markets. By 1994, the share of such exports in total non-oil export revenue had reached 25 per cent in Indonesia and 20 per cent in Thailand. However, in both countries, the development of these sectors was considerably slower than in the first-tier NIEs, and shares in total export earnings after 20 years of industrialization were only about half of what they had been in the Republic of Korea and Taiwan Province of China by the mid-1970s. The reason for the considerably slower expansion of these sectors in the second-tier NIEs was not only the remaining large export potential in primary commodities, including food, but also the fact that their later start coincided with a period of heightened international competition in these sectors.

Nevertheless, the reduction of the second-tier NIEs' reliance on exports of non-oil primary commodities, though less rapid than in the Republic of Korea and Taiwan Province of China, has been considerably faster than in most other developing countries. For example, the share of non-oil primary commodities in total exports of three large Latin American economies taken together (Argentina, Chile and Colombia) fell from 95 per cent in the mid-1960s to around 70 per cent by the early 1990s (see table 32). Over the same period, the share in second-tier NIEs came down from more than 96 per cent to less than one third. Initially, this substantial fall in the share resulted mainly from the rise of exports of low-skill, labour-intensive and resource-based manufactures. To judge

by the declining share of exports based on an initial resource advantage (i.e. non-oil primary commodities and low-skill, labour-intensive and resource-based manufactures), the performance of the second-tier NIEs is considerably better than the average for the five major Latin American economies distinguished in the table. However, such goods still account for more than half of their total export earnings, whereas the first-tier NIEs have become much less dependent on cheap labour as a result of the emphasis placed on capital formation as well as on technology and skill acquisition in more advanced sectors.

3. Industrial upgrading and dynamic comparative advantage

The sustained rise in exports in the first-tier NIEs would not have been possible had these economies relied only on initial comparative advantages. Such advantages, especially those related to labour-intensive industries, were unlikely to persist, as wages tended to rise with economic development. That is why export expansion in the textiles and clothing industries in the Republic of Korea, Taiwan Province of China and Hong Kong levelled off, while it took off in Indonesia and Thailand. The first-tier NIEs consequently needed to establish a comparative advantage in different activities.

They have indeed been particularly successful in upgrading their structure of manufacturing output towards scale- and skill-intensive activities. By the second half of the 1980s, the share of these activities in total manufacturing output had surpassed that of resource- and labour-intensive activities. The rising share of these scale- and skill-intensive goods in total manufacturing exports (although initially lagging behind their share of total output) also began to accelerate rapidly from the mid-1970s. These goods now comprise the majority of manufactured exports. Likewise, the first-tier NIEs have gained substantial shares in the world markets for ships and boats, iron and steel, plastic products, radio and television sets, watches, cycles and, above all, automatic data processing equipment. Upgrading has been slower in the second-tier NIEs. However, beginning in the early 1980s, the process has gained pace.

A more detailed analysis of the links between industrial upgrading and exports, based on a clas-

Table 32

**PRIMARY COMMODITIES AND LABOUR-INTENSIVE AND RESOURCE-BASED EXPORTS
AS A SHARE OF TOTAL NON-OIL EXPORTS OF SELECTED
DEVELOPING COUNTRIES AND REGIONS, 1965-1994**

	<i>First-tier NIEs (2 countries)^a</i>	<i>Second-tier NIEs</i>	<i>Latin America (3 countries)^b</i>	<i>Brazil</i>	<i>Mexico</i>
Primary commodities^c					
1965	51.4	96.6	94.6	92.3	84.3
1975	18.4	87.5	81.6	74.0	64.8
1985	7.2	67.6	84.0	52.8	33.9
1994	6.1	31.4	69.5	43.9	13.1
Primary commodities^c plus resource-based and low-skill labour-intensive goods^d					
1965	86.5	97.7	96.6	94.2	89.2
1975	69.4	93.2	87.7	83.4	75.0
1985	47.6	82.9	89.6	64.1	44.7
1994	31.6	59.0	82.0	58.1	22.8

Source: UNCTAD secretariat calculations, based on United Nations *Commodity Trade Statistics* tapes.

a Republic of Korea and Taiwan Province of China.

b Argentina, Chile and Colombia.

c Excluding petroleum and including non-ferrous metals (SITC 68).

d Wood and paper products; non-metallic mineral products; textiles and clothing (including footwear); and toys and sports equipment.

sification of exports into five broad categories, reveals a number of interesting features (tables 33 and 34). The classification takes into account the mix of different skill, technology, capital and scale requirements at the final product stage. Group I comprises primary commodities, including processed food. Group II covers labour-intensive and resource-based industries with a low skill, technology and capital content, or where use can be made of indigenous skills and technology acquired through earlier handicraft production (textiles, clothing and footwear; toys and sports equipment; wood and paper products; and non-metallic mineral products). Group III comprises sectors with a low-to-medium level of skill, technology, capital and scale requirements (iron and steel; fabricated metal products; transport equipment other than motor vehicles and aircraft; and sanitary and plumbing equipment). Group IV consists of sectors with a medium-to-high level requirement in

respect of the four criteria (rubber and plastic products; non-electrical machinery; electrical machinery; and road motor vehicles). Finally, in group V there are the sectors which in general are most demanding in the terms described (chemical and pharmaceutical products; computers and office equipment; communication equipment and semiconductors; aircraft and associated equipment; and scientific instruments, watches and photographic equipment).

To be sure, skill requirements do not always increase in proportion to capital intensity, the most obvious example being motor vehicles. Moreover, as already noted, slicing of the production chain by TNCs has made it possible to single out technically and geographically low-skill, labour-intensive intermediate stages in the production of goods which are otherwise highly technology- and capital-intensive. Such intra-firm divisions of labour

appear to have been playing an important role in the recent wave of industrialization of the second-tier NIEs and other developing countries; examples are industries such as automobiles and electronics in Mexico.¹⁸ Nevertheless, there is a general tendency for skill, technology and capital requirements to rise together. Indeed, complementarities among these factors are at the core of the upgrading process.

Tables 33 and 34 reveal a number of similarities of industrial upgrading among the East Asian NIEs, as well as important differences between the first- and the second-tier ones, and within each of these two groups. The evolution of the export structure of the first-tier NIEs exhibits a clear pattern of sequenced upgrading, from primary commodities in the Republic of Korea and Taiwan Province of China and from *entrepôt* activity in Hong Kong, and particularly Singapore (group I), through increasingly more advanced stages of industrialization to goods which require the highest level of skill and technology. The second-tier NIEs reveal a less systematic pattern of upgrading as well as larger differences among each other than in the first tier.

Clothing, textiles and footwear remained the main pillar of export success in the Republic of Korea and Taiwan Province of China during the phase of most rapid export expansion, their share in total exports rising until the mid-1970s. But soon after entering world markets in group IV products, the first-tier NIEs were also able to expand group III exports. The increasing share of these sectors in total exports continued until 1985, but was much more rapid in Taiwan Province of China and the Republic of Korea than in the other two economies. In the Republic of Korea, the increase was due in the first instance to fast growth of heavy industry, particularly shipbuilding and iron and steel, whereas Taiwan Province of China went through a phase of less rapid, but still relatively fast, growth of "lighter" industries, such as fabricated metal products and non-motor vehicles. Growth in the latter products was sustained well into the 1990s, whereas in the Republic of Korea exports of ships and boats and other group III products rapidly declined in importance as a share of total exports after 1985. In both cases, the development of these sectors was closely linked to their diminishing dependence on imported capital goods noted above.

Already in the late 1960s, when exports of the technologically less advanced sectors (groups

III and IV) were still rising, the first-tier NIEs also succeeded in expanding exports of goods requiring higher levels of skill and technology, such as machinery (especially electrical machinery) and goods incorporating what has come to be labelled "high-technology", such as computer equipment, semiconductors and telecommunications equipment. In 1994 group IV and V exports accounted for more than half of the total export earnings of the first-tier NIEs. In Latin America, only Mexico had reached by that time a similar share; in the four other major economies (Brazil, Argentina, Chile and Colombia) it averaged less than one quarter.

A vital prerequisite for this success was a process of systematically nurturing new generations of industries with a greater potential for innovation and long-term productivity growth. A decisive element was the use of selective industrial policies, designed to encourage investment in new industries where competitive advantages had to be created in human capital and technology (see section E below). A notable example of these policies is the Korean automobile industry. Today the Republic of Korea stands out as the first country after Japan that has become competitive worldwide in this sector. It took 30 years of production for the domestic market under import protection, but accompanied by constant acquisition of new skills and technology, to reach this point. The share of this industry in total exports rose from close to zero in 1975 to 2.2 per cent by 1985, and since then has tripled.

As already noted, upgrading in the second-tier NIEs has been slower. However, differences in the pattern and sequence of upgrading between the first and second-tier NIEs are perhaps more important. As can be seen from table 34, there has been relatively little export-oriented development in group III sectors in the second-tier NIEs, which even today contribute importantly to foreign exchange earnings in the Republic of Korea and Taiwan Province of China. By contrast, in Malaysia and Thailand, since the early 1980s there has been a sharp increase of exports in the upper segments of manufacturing, namely electrical machinery and electronics, while Indonesia has made progress in these same sectors in recent years. Apart from chemicals, these countries exported virtually no group V products in the mid-1960s. Although some advances were made by Thailand, and even more so by Malaysia, during the 1970s and early 1980s in exports of electrical machinery

Table 33

COMMODITY STRUCTURE OF EXPORTS FROM FIRST-TIER NIES, 1965-1994

(Percentage of total non-oil exports)

Commodity group	Republic of Korea			Taiwan Province of China			Singapore			Hong Kong		
	1965	1975	1985	1994	1965	1975	1985	1994	1965	1975	1985	1994
<i>Group I</i>	42.8	17.7	5.9	5.3	60.0	19.0	8.6	7.0	61.1	36.9	23.3	8.6
Food	17.5	14.1	4.4	2.8	53.0	16.6	6.2	4.0	21.2	11.8	7.6	4.8
Other primary commodities	25.3	3.6	1.5	2.5	7.0	2.4	2.4	3.0	39.9	25.1	15.7	3.8
<i>Group II</i>	43.8	53.3	36.3	25.2	26.3	48.7	44.4	25.7	12.6	12.4	10.6	6.1
Wood & paper products	11.1	5.6	0.7	1.1	7.3	5.2	2.9	1.7	1.3	3.1	2.4	1.0
Textiles, cloth., footwear	30.9	43.9	32.1	22.7	15.8	38.9	32.6	19.4	9.1	7.8	6.5	4.0
Non-metallic mineral products	1.7	2.3	1.2	0.7	2.6	1.1	2.3	1.2	1.9	1.1	0.9	0.7
Toys and sports equipment	0.1	1.5	2.3	0.7	0.6	3.5	6.6	3.4	0.3	0.4	0.8	0.4
<i>Group III</i>	9.1	11.0	30.8	14.7	4.2	6.1	11.1	9.6	5.4	8.6	4.8	3.9
Iron and steel	7.7	4.9	6.4	5.4	2.6	1.9	2.1	1.9	2.3	2.6	1.4	0.9
Fabricated metal products	1.3	2.6	5.2	2.8	1.2	2.7	5.4	6.1	2.5	2.0	1.7	1.3
Ships and boats	0.0	3.0	17.9	5.6	0.0	0.4	0.6	0.5	0.1	3.8	1.4	1.1
Other ^a	0.1	0.6	1.3	1.0	0.4	1.1	3.0	1.0	0.5	0.2	0.3	0.6
<i>Group IV</i>	3.0	10.9	13.4	35.3	3.1	11.7	19.0	29.2	13.7	24.8	29.4	32.7
Rubber and plastic products	0.7	3.7	2.0	2.2	0.3	3.1	4.1	3.9	0.8	0.6	0.8	1.1
Non-electrical machinery	1.5	0.7	2.0	5.7	1.4	2.8	4.5	8.2	4.6	8.6	8.6	7.5
Electrical machinery	0.3	6.4	7.2	20.8	1.4	5.1	9.1	15.1	1.8	13.2	19.0	23.4
Road motor vehicles	0.6	0.1	2.2	6.6	0.0	0.7	1.3	2.0	6.5	2.4	1.0	0.7
<i>Group V</i>	1.4	7.2	13.5	19.5	6.4	14.4	17.0	28.5	7.4	17.4	31.9	48.7
Chemicals and pharmaceuticals	0.2	1.6	3.6	7.1	4.9	2.0	2.9	6.1	5.7	6.0	8.7	6.9
Computer and office equipment	0.0	1.0	2.1	4.0	0.0	1.6	4.5	13.5	0.3	2.6	9.3	27.6
Communication equipment ^b	0.9	3.0	5.7	6.7	1.3	9.0	7.7	6.6	0.5	4.9	8.6	10.4
Other ^c	0.3	1.7	2.1	1.7	0.1	1.8	1.9	2.3	0.9	4.0	5.3	3.8

Source: UNCTAD secretariat calculations, based on United Nations Commodity Trade Statistics tapes.

^a Transport equipment other than road motor vehicles, ships and aircraft; and sanitary and plumbing products.

^b Telecommunications and sound recording and reproducing apparatus and equipment; and semiconductors.

^c Aircraft and associated equipment; and scientific instruments, including watches and photo equipment.

Table 34

COMMODITY STRUCTURE OF EXPORTS FROM SECOND-TIER NIES, 1965-1994

(Percentage of total non-oil exports)

Commodity group	Indonesia			Malaysia			Thailand			
	1967	1975	1985	1965	1975	1985	1965	1975	1985	1994
<i>Group I</i>	96.7	95.8	75.9	94.8	81.0	63.6	98.0	85.7	63.3	28.7
Food	27.0	22.7	14.6	6.9	7.7	6.1	55.2	64.0	47.4	22.7
Other primary commodities	69.7	73.1	61.3	87.9	73.3	57.5	42.8	21.7	15.9	6.0
<i>Group II</i>	0.2	0.4	16.4	1.5	5.6	7.0	1.6	11.1	22.5	27.1
Wood and paper products	0.0	0.1	10.0	0.7	2.6	1.5	0.1	1.3	1.3	1.1
Textiles, clothing, footwear	0.2	0.3	6.1	0.5	2.7	4.5	0.5	6.6	16.7	20.4
Non-metallic mineral products	0.0	0.0	0.4	0.3	0.3	0.5	1.0	3.2	4.2	4.0
Toys and sports equipment	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.3	1.6
<i>Group III</i>	0.1	0.3	0.4	0.3	0.8	2.2	0.1	0.8	1.7	3.3
Iron and steel	0.0	0.0	0.3	0.1	0.2	0.5	0.0	0.3	1.0	0.7
Fabricated metal products	0.1	0.2	0.0	0.2	0.4	0.5	0.1	0.5	0.6	1.5
Ships and boats	0.0	0.1	0.0	0.0	0.1	1.2	0.0	0.0	0.0	0.2
Other ^a	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.9
<i>Group IV</i>	2.5	1.4	1.0	2.3	5.7	20.7	0.1	1.6	9.6	20.7
Rubber and plastic products	0.0	0.0	0.1	0.5	0.7	0.6	0.0	0.4	1.3	2.8
Non-electrical machinery	2.5	0.8	0.2	0.7	1.6	2.1	0.0	0.2	1.8	3.7
Electrical machinery	0.0	0.6	0.8	0.2	3.1	17.9	0.1	1.0	6.3	12.7
Road motor vehicles	0.0	0.0	0.0	1.0	0.4	0.2	0.0	0.0	0.2	1.5
<i>Group V</i>	0.5	2.1	6.3	1.2	6.9	6.5	0.1	0.9	3.0	20.2
Chemicals and pharmaceuticals	0.5	1.4	5.9	1.1	1.0	1.6	0.1	0.6	1.4	3.0
Computer and office equipment	0.0	0.0	0.0	0.0	0.9	0.2	0.0	0.0	0.8	9.5
Communication equipment ^b	0.0	0.1	0.0	0.0	0.6	3.3	0.0	0.1	0.1	4.2
Other ^c	0.0	0.6	0.4	0.1	4.4	1.4	0.0	0.2	0.7	3.5

Source: UNCTAD secretariat calculations based, on United Nations Commodity Trade Statistics tapes.

^a Transport equipment other than road motor vehicles, ships and aircraft; and sanitary and plumbing products.

^b Telecommunications and sound recording and reproducing apparatus and equipment; and semiconductors.

^c Aircraft and associated equipment; and scientific instruments, including watches and photo equipment.

Table 35

**SELECTED EAST ASIAN NIEs: RELATION OF IMPORTS TO EXPORTS IN THE
ELECTRONICS SECTOR, 1994**

	<i>Republic of Korea</i>	<i>Taiwan Province of China</i>	<i>Singapore</i>	<i>Indonesia</i>	<i>Malaysia</i>	<i>Thailand</i>
Exports of electronics products^a						
(\$ million)						
All electronics products	11 630	14 681	34 262	1 665	14 768	6 387
<i>of which:</i>						
Automatic data processing equipment	3 395	9 090	21 878	193	4 726	3 680
Communication equipment ^b	8 234	5 591	12 385	1 473	10 042	2 707
Share of finished goods in exports^a						
(per cent)						
All electronics products	80.4	60.0	67.1	80.2	65.3	64.8
<i>of which:</i>						
Automatic data processing equipment	82.5	54.9	66.6	49.9	30.9	57.5
Communication equipment ^b	79.6	68.4	76.4	84.1	81.5	74.8
Imports of parts as a percentage of exports of finished goods						
All electronics products	18.7	12.6	32.7	26.7	38.5	60.1
<i>of which:</i>						
Automatic data processing equipment	24.3	8.5	28.9	33.2	95.4	79.4
Communication equipment ^b	16.3	17.8	39.3	26.2	28.4	40.0
Imports of parts as a percentage of total exports^a						
All electronics products	15.0	7.5	21.9	21.4	25.2	39.0
<i>of which:</i>						
Automatic data processing equipment	20.0	4.7	19.4	16.6	29.5	45.7
Communication equipment ^b	13.0	12.2	26.5	22.0	23.1	29.9

Source: UNCTAD secretariat calculations, based on United Nations *Commodity Trade Statistics* tapes.

a I.e. exports of both finished goods and parts.

b Telecommunications and sound recording and reproducing apparatus and equipment; and semiconductors.

and of semiconductors and telecommunications equipment, it was not until the second half of the 1980s that exports from this group surged. By 1994 computer equipment, semiconductors and telecommunications equipment, together with scientific instruments, represented some 19 per cent of the exports of Thailand and more than 28 per cent of those of Malaysia, proportions which were much higher than in the Republic of Korea, Taiwan Province of China and Hong Kong.

While the first-tier NIEs have thus achieved a relatively diversified export structure, there appears to have emerged a largely dual structure in the second-tier ones, with exports bunched at the upper and lower ends of the skill and technology range. However, the figures for total exports in higher segments from the second-tier NIEs hide a large import content. For example, imports of parts of automatic data processing equipment in 1994 were close to 80 per cent of the export value of

finished products in Thailand and more than 95 per cent in Malaysia, compared to less than 30 per cent in the Republic of Korea and Singapore (the latter country being the leading East Asian exporter in this sector) and only around 8.5 per cent in Taiwan Province of China (see table 35). In Malaysia the majority of such exports again consisted of parts; finished products were only around 30 per cent of total exports of the sector. The corresponding figures for the first-tier NIEs vary from 54.9 per cent (Taiwan Province of China) to 82.5 per cent (Republic of Korea). It is thus possible that in the second-tier NIEs a larger proportion of imported parts is processed for export as parts, rather than as finished products. However, even in terms of the ratio of imported parts to total exports of parts and finished products, the import content of exports appears to be considerably higher in Malaysia and Thailand than in the Republic of Korea and Taiwan Province of China.

The ratio of imported parts to exported finished products in the second-tier NIEs is considerably smaller for telecommunications equipment than for computers. In the Republic of Korea and Taiwan Province of China, the corresponding ratios in 1980 for telecommunications equipment were already lower than they now are in the second-tier NIEs. Again, the ratio of imports of parts to total exports of parts and finished products is considerably higher in the latter countries than in the former. These figures suggest that in Malaysia and, to a lesser extent, Thailand a large share of exports in these sectors consists of intermediate products that are reexported after processing, so that the "high-tech" character of exports may often be primarily a reflection of that of the imported inputs.

What appears to be a jump from the lower skill and technology range to the upper range in exports from Malaysia and Thailand consequently reflects, to a large extent, an increasing division of labour among East Asian countries whereby the second-tier NIEs assume the less demanding and more labour-intensive assembly stages. This high-skill export structure arises primarily from the success of the second-tier NIEs in attracting affiliates of foreign firms rather than from use of existing domestic capacities and capabilities in these sectors. In this context, and as discussed in greater detail in the previous chapter, the idea of a "recycled comparative advantage" which marries domestic cost advantages with the technology and skills of TNCs does not necessarily have the same

Table 36

FDI IN MANUFACTURING: RANKING OF HOST COUNTRIES

<i>Host country^a</i>	<i>Year</i>	<i>Share of foreign affiliates (Per cent)</i>
Singapore	1988	53.0
Thailand	1986	48.6
Philippines	1987	40.8
Malaysia	1986	40.5
Brazil	1987	34.2
Republic of Korea	1986	21.5
Hong Kong	1987	17.3
Uruguay	1987	13.6
Peru	1988	11.8
Sri Lanka	1987	11.7
Japan	1986	2.2

Source: M. Wilkins, "Multinational Corporations: An Historical Account", paper for UNU/WIDER Conference on Transnational Corporations and the Global Economy, held at King's College, Cambridge, United Kingdom, 21-23 September 1995.

^a Ranked by foreign affiliates' share of total sales in the domestic market for manufactures (for latest available year).

implications for the host country as for the foreign firms involved.

4. Foreign direct investment, exports and upgrading

The East Asian NIEs have, in general, been particularly successful in attracting FDI so as to compensate for specific deficiencies in domestic technological and organizational skills. In part, their success reflects an early willingness to host FDI. But probably the single most important factor in attracting FDI has been the sustained rates of rapid economic growth in these economies. However, in East Asia FDI has been more consistently export-oriented than in other developing regions.¹⁹

Within the region there is nevertheless a remarkable diversity of experience with FDI. As can be seen from table 36, foreign affiliates accounted

Table 37

**RATIO OF FDI INFLOWS TO GROSS FIXED
CAPITAL FORMATION IN SELECTED
EAST ASIAN COUNTRIES,
1971-1993**

(Percentage)

Country	1971- 1980	1981- 1990	1991- 1993
Japan	0.1	0.1	0.1
Hong Kong	5.1	9.9	5.7
Republic of Korea	1.2	0.9	0.5
Singapore	15.8	26.2	37.4
Taiwan Province of China	1.3	2.6	2.6
Indonesia	3.5	1.5	4.5
Malaysia	13.6	11.3	24.6
Philippines	1.0	3.8	4.6
Thailand	2.3	4.8	5.0
China	0.0	1.5	10.4

Source: UNCTAD data base.

for 40-50 per cent of domestic sales of manufactures in Singapore and ASEAN-4 in the late 1980s, whereas for the Republic of Korea and Hong Kong the proportions were around 21 per cent and 17 per cent, respectively.²⁰ The figures in table 37 on shares of FDI in gross domestic capital formation show a similar pattern of reliance on FDI.

Broad aggregates such as those just considered do not necessarily provide a true measure of the importance of FDI in the industrialization process. In the Republic of Korea, for example, foreign affiliates accounted for a quarter of all manufactured exports, which is a much greater proportion than their shares in GDP or gross capital formation. In the key electrical machinery and electronics sectors, the share of foreign affiliates was around 70 per cent.²¹ Thus, although development in the Republic of Korea and Taiwan Province of China relied mainly on domestic firms, an important role was, and still is, played by FDI in certain sectors. This reflects the fact that these countries were extremely selective and restrictive in their policy towards FDI. Following the lead of Japan, they

have shown a clear overall preference for promoting indigenous enterprises and enhancing domestic technological capabilities.²² Even when successful upgrading took place in the presence of FDI, as in the electronics industry, it has been judged by the extent to which moves into design and product development gradually reduced dependence on TNCs.²³ In many respects, the policy pursued was similar to that for domestic investment, where neither narrow corporate interests nor the spontaneity of market forces were left alone to guide the investment process.

The two most important hosts to FDI among the first-tier NIEs are Singapore and Hong Kong. However, there are important differences between the two in the contribution of FDI to development. Although Singapore has not nurtured domestic private firms to compete with TNCs, it has targeted specific industries for promotion, particularly where knowledge is an important input, and used TNC-controlled assets in efforts to upgrade.²⁴ The sizeable presence of TNCs in Hong Kong, particularly in manufacturing for export, followed from an early but essentially passive reliance on FDI to build a low-skill industrial base. However, FDI has contributed little to upgrading and industrial deepening, and has been much more footloose than in the other NIEs. Deindustrialization has been particularly rapid since the mid-1980s and in recent years manufacturing exports have stagnated or even declined.

Economic development in East Asia has become steadily more dependent on FDI, as was demonstrated in the previous chapter (see also tables 36 and 37). In Japan the share of foreign affiliates in manufacturing sales in the late 1980s was negligible. It was much higher in Hong Kong and the Republic of Korea, and still higher in the second-tier NIEs. This, with some qualifications, can also be seen from the figures on capital formation. Even so, apart from Malaysia, FDI still accounts for a relatively small share of total investment amongst second-tier NIEs.

The second-tier NIEs have been more willing to allow in wholly-owned foreign subsidiaries and have taken a somewhat less restrictive approach towards FDI. More liberal foreign investment laws were introduced, or their implementation accelerated, in the second half of the 1980s, a period which coincided with sharp shifts in the competitive position of firms in both Japan and the first-tier NIEs. As discussed in the previous chapter, the most strik-

ing development has been the mushrooming of FDI from the first-tier NIEs, which between them now have more direct investment in ASEAN-4 than does Japan.

Although Malaysia and Thailand, through their heavy reliance on FDI, have succeeded in high-technology exports, which in large part combine low-skill assembly activities with high-technology imported parts, both countries have yet to develop a diversified manufacturing base. In particular, their early orientation towards electronics contrasts with the slow development of most capital goods industries, such as iron and steel, non-electrical machinery, metal products and transport equipment. The continued heavy reliance on imports of both capital and intermediate goods suggests that the second-tier NIEs still have to embark on the kind of upgrading process in the medium technology sectors pursued earlier by the first-tier ones. Many of the elements of the technological infrastructure needed to allow domestic firms to compete in this middle range of exports are still missing.²⁵ These countries also have yet to put in place a well-developed local supplier network, incipient clusters of high-technology activities and an adequately trained workforce; nor do they have any significant industrial R&D, either within the enterprise system or in the public sector. Indeed, figures on R&D expenditure are particularly revealing; the second-tier NIEs are on this criterion still relatively poor performers among developing countries (devoting under 0.25 per cent of GNP to this purpose), falling considerably behind the first-tier NIEs.²⁶ Consequently, in the

electronics sector in Malaysia, for example, the process of upgrading has been slow. In the absence of strong backward and forward linkages local firms continue to concentrate on the supply of secondary materials and services such as packaging and transportation.²⁷

The evolution of industrial output and exports in the second-tier NIEs and their increasing reliance on FDI is currently raising concerns about an economic structure with insufficient technological and supply linkages between the TNC-dominated export sectors and the domestic economy. The predominance of simple assembly and finishing operations and the low level of technological capabilities have given rise to the fear that China, India, Viet Nam and other Asian countries with relatively low wage levels could eliminate these sources of growth momentum, unless measures are introduced to deepen the domestic industrial base and improve the quality of the labour force, management and infrastructure. The fact that in Malaysia and Thailand wage pressures can only be mitigated by large-scale immigration suggests that these economies may be having difficulty in achieving the necessary upgrading.²⁸

As discussed above, without upgrading and raising the domestic value-added content of exports in industries dominated by foreign firms, FDI would tend to remain footloose and the economy would be highly vulnerable to interruptions of capital inflows. Concerns over such a possibility have been growing in Thailand, and even more in Malaysia, in view of their large current account deficits.

D. Upgrading and international competitiveness

For most developing countries, entering and adapting to markets in the more advanced countries is crucial for establishing competitive industries and for successful upgrading. In this respect, both the first-tier and the second-tier NIEs have performed much more successfully than most other developing countries over the past three decades. While their shares in total OECD imports rose steadily from 1963 to 1993, those of all other

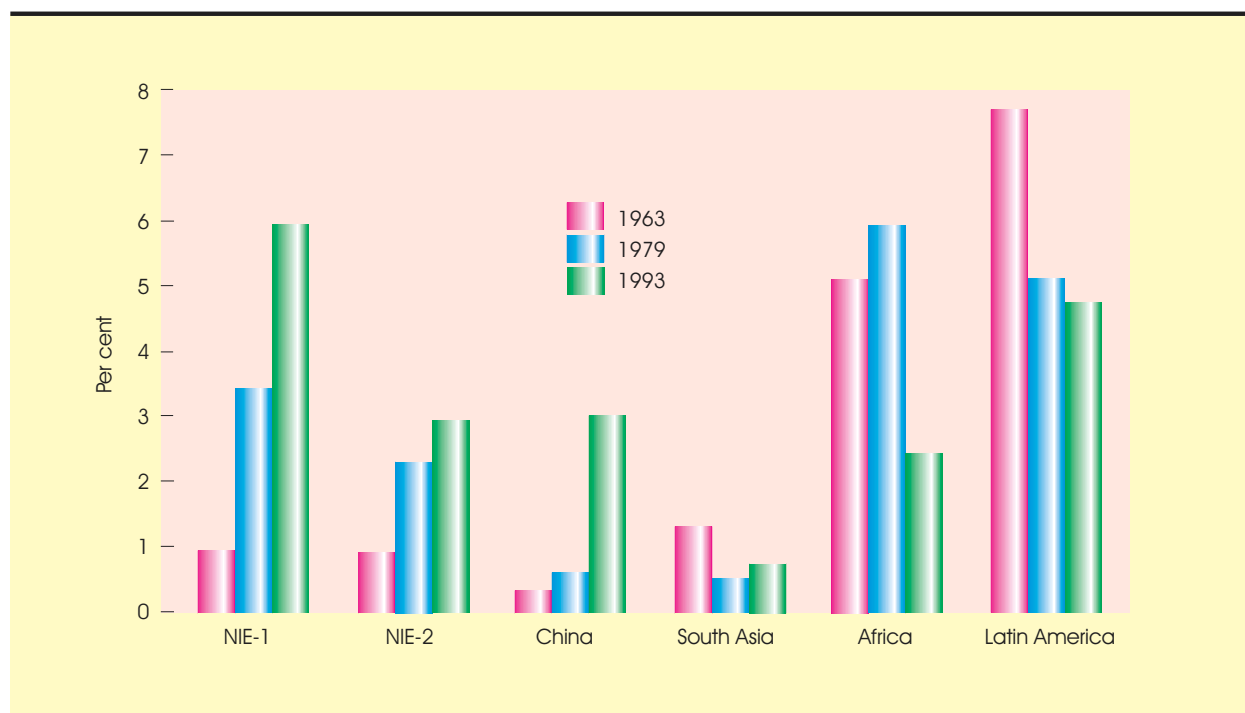
developing regions have fallen (chart 5). The situation since 1979 has become even more dramatic: from 1979 to 1993 their combined share rose from 5.7 per cent to 8.8 per cent, whereas for Latin America the share declined further, from 5.1 per cent to 4.7 per cent.

A more detailed analysis, based on data of ECLAC's Comparative Analysis of Nations (CAN)

Chart 5

SHARES OF SELECTED REGIONS AND COUNTRIES IN TOTAL IMPORTS OF OECD COUNTRIES, 1963, 1979 AND 1993

(Percentage)



Source: ECLAC, Comparative Analysis of Nations data base.

Note: "NIE-1" comprises Hong Kong, Republic of Korea, Singapore and Taiwan Province of China.

"NIE-2" comprises Indonesia, Malaysia and Thailand.

"South Asia" comprises India and Pakistan.

"Africa" includes South Africa.

system,²⁹ indicates that the East Asian economies have been singularly successful in increasing their exports of products that are growing in importance in international trade. In 1990 about three quarters of their exports were in goods for which the share in total OECD imports had been expanding over the previous three decades. In contrast, the proportion for Latin America was only 38 per cent, and only 24 per cent if Mexico is excluded. There was, however, some difference between the first-tier and second-tier NIEs: 85 per cent of exports from the former were in expanding areas of trade, but less than 70 per cent from the latter, and under 40 per cent from Indonesia alone. Indeed, as is suggested by the figures in table 38, the second-tier NIEs, in this respect, resemble more closely non-Asian NIEs, such as Mexico, Tunisia, Morocco and Turkey. Moreover, while in the Republic of Korea and Taiwan Province of China greater competitiveness in such dynamic products is based

primarily on indigenous capacity, in other Asian NIEs, as well as in Mexico, greater penetration³⁰ of OECD markets in these products is to a much larger degree a reflection of their participation in the international division of labour through TNCs.

Success in entering expanding areas of international trade may have resulted from a fortuitous endowment structure at the start of their export boom. In fact, in the early 1960s, the first-tier NIEs - with the exception of Hong Kong - were no better placed in what were to be the future growth markets than other developing countries. The Republic of Korea, for example, had only 21 per cent of its exports in these products in 1963, while Taiwan Province of China and Singapore had less than 10 per cent.

A more detailed analysis of export dynamics, focusing on 20 product groups (at the three-digit

Table 38

**SECTORAL ORIENTATION OF EXPORTS OF SELECTED DEVELOPING COUNTRIES
IN 1990**

(Share in total exports of exports in fast-growing OECD import sectors^a)

Country		Country	
Hong Kong	91.0	Mexico	61.2
Taiwan Province of China	83.9	Tunisia	57.9
Singapore	83.3	Morocco	49.8
Republic of Korea	82.0	Turkey	49.4
		Brazil	35.5
Thailand	66.7	Argentina	20.9
Malaysia	60.8	Colombia	16.0
Indonesia	39.5	Chile	12.3

Source: ECLAC, Comparative Analysis of Nations data base.

a A fast-growing OECD import sector is defined as one in which imports into OECD countries as a proportion of total OECD imports rose from 1963 to 1990.

SITC level) which had the most rapidly rising shares of OECD imports in 1963-1990 confirms these broad tendencies.³¹ The first-tier and the second-tier NIEs have, in general, been more successful than other developing countries in moving into these products. The contrast with the Latin American region is particularly striking. In 1963 Latin America accounted for 15 per cent of all OECD imports in what were then the 20 leading product groups (i.e. had the greatest share in 1963 OECD imports), or for 60 per cent of all developing country exports of these products.³² However, Latin America has not adapted to the change in import structure of the advanced economies. Its share in 1993 of the 20 most dynamic products stood at only 2.5 per cent of total OECD imports of such goods, and only 16 per cent of total developing country exports. Over the same period, East Asia's share rose from under 1 per cent to 10 per cent, and accounted for 64 per cent of total developing country exports by the end of the period.

Another way of looking at the matter is to compare the structure of exports in 1963 and 1990. Taking the 20 leading product groups in the earlier year, it is clear that they comprised mainly resource-based and low-skill goods. The overlap of this group of products with the most dynamic products (i.e. those listed in note 31 above) is small,

involving only four product groups. A comparison with the export structure in 1990 shows that the East Asian NIEs have successfully moved away from the group of leading products in 1963, while Latin America has remained with the older pattern of trade that limited the opportunities to establish a virtuous export-investment-growth nexus.

From this perspective, differences between the first-tier and the second-tier East Asian NIEs are also brought into sharper focus. In terms of both their penetration of OECD markets in these 20 dynamic products and their share in total exports to those markets, the second-tier NIEs lagged slightly behind the first-tier ones in 1963, with both groups of countries being of marginal importance, like other developing regions.³³ By 1993, the second-tier NIEs had overtaken other developing regions, but the gap between them and the first-tier NIEs had widened considerably. The widening of the gap was most marked in the period up to the late 1970s, and has since narrowed (especially since the early 1980s, when the second-tier NIEs made significant gains). As already noted, this jump is closely associated with rapid flows of FDI into the second-tier NIEs during the 1980s. Nevertheless, these figures broadly confirm that the kind of upgrading needed to maintain their catching-up process still lies ahead for these economies.

International trade can expand for different reasons and with vastly different implications for the longer-term growth of national economies. In particular, trade liberalization in otherwise fairly sluggish markets is likely to stimulate imports in OECD countries, but it has very different implications for long-term growth than import expansion due to strong growth of domestic demand. In this respect it is useful to consider the income elasticity of demand for the most dynamic products. On the basis of available data, imports of goods in most of the 20 product groups studied above (i.e. those that were the most dynamic in the last three decades) appear to be income-elastic in OECD countries, the principal exception being aircraft and associated equipment, for which the market is rather specialized. Interestingly, a number of traditional low-skill exports, such as textiles and toys, show a relatively high income elasticity. However, many of the products involved are in high-technology sectors; from 1963 to 1993, high-tech imports into OECD countries grew by over 180 per cent, compared to only 40 per cent for medium-technology goods and a decline of 12 per cent for low-technology goods.

Although these figures must be interpreted with caution in view of the heterogeneity of products which fall under these broad classifications, it would appear that the East Asian economies have been far more successful than other developing economies in entering markets for products with high income elasticities of demand. While 9 of the 10 leading exports from the first-tier NIEs to OECD in 1993 were income-elastic, there were only 2 in Latin America. However, there is a significant difference between the first-tier and second-tier NIEs. For Thailand, 5 of the 10 leading exports to OECD markets, accounting for 18 per cent of export earnings, were income-elastic, and for Malaysia there were only 3 (although they accounted for over 26 per cent of total exports). For both the Republic of Korea and Taiwan Province of China there were 8 such products, accounting for over 36 per cent and 41 per cent of exports, respectively.

It is possible to combine market dynamics with changes in market penetration in determining a country's position in international trade. A dynamic/competitive position is one where a country's share is rising in a market for a dynamic product, and a dynamic/uncompetitive position is one where it is falling. Similarly, a country's share may be rising or falling in markets for less dynamic or

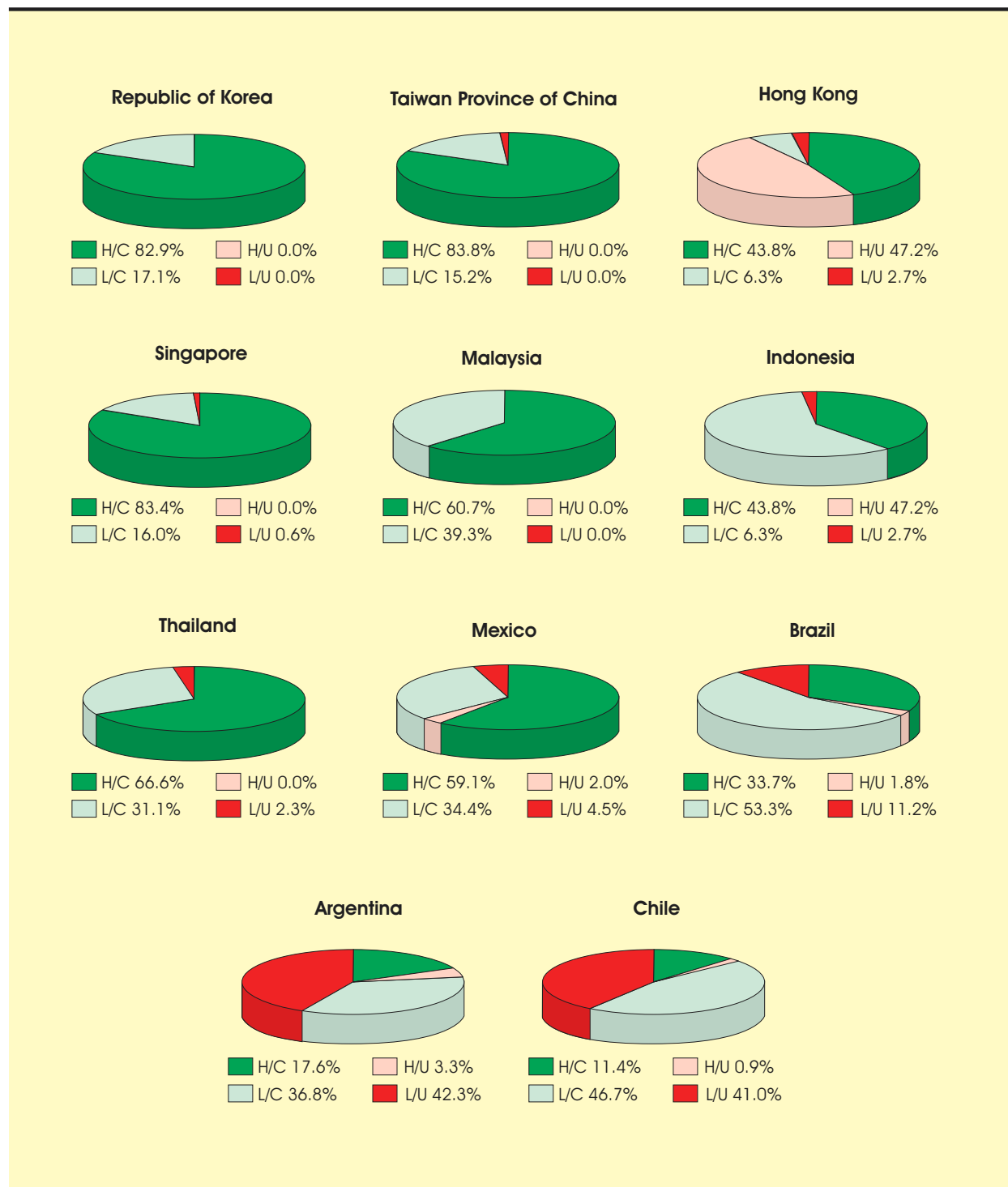
declining products. Certainly, a country has various positions in different markets and products. One which is constantly upgrading and gaining market shares in dynamic products is likely to have low or falling shares in less dynamic or declining products. If it loses share in the latter products without gaining elsewhere, it is certainly being marginalized in international trade. In contrast, a country gaining shares in the less dynamic or declining products may see its exports lose steam over time if it fails to move into more dynamic ones. Finally, as noted in chapter I above, a maturing, post-industrial economy can be expected to lose shares in dynamic markets.

As noted above, a large proportion of exports of the East Asian NIEs is concentrated in fast-growing dynamic products (see table 38). An examination in terms of the 20 most dynamic products shows that, with the exception of Hong Kong, all Asian NIEs increased their shares of OECD markets during 1963-1990 in almost all these products. The dynamic/competitive position of the first-tier NIEs is particularly striking if these 20 products are further divided into two categories, "highly dynamic" and "less dynamic", according to the growth rates in OECD import markets. Hong Kong has been losing its market share in almost half of the highly dynamic products it exports, in which it had earlier built a strong market presence, indicating that it has been falling behind the other first-tier NIEs in upgrading (see chart 6). The second-tier NIEs have a closer balance between highly dynamic and less dynamic products; in particular, Indonesia has been enlarging its market shares more in the latter than in highly dynamic products. As already noted, the apparent success of Malaysia and, to a lesser extent, Thailand in raising their market shares in highly dynamic goods is linked to their participation in the new production strategies of TNCs.

The contrast with Latin America is striking. Not only is the share of Latin America in the 20 products smaller than that of East Asia, but also two thirds of exports are in less dynamic products. Interestingly, Chile, a successful export-oriented Latin American economy over the past decade, does not resemble the second-tier East Asian NIEs, with which it is often compared. More than four fifths of its exports are in less dynamic products, in about one half of which its competitiveness has been increasing while in the other half it has been decreasing. Chile thus appears to have been restructuring its exports within the more sluggish

Chart 6

DYNAMISM AND COMPETITIVENESS OF EXPORTS FROM SELECTED ASIAN AND LATIN AMERICAN DEVELOPING COUNTRIES, 1990



Source: ECLAC, Comparative Analysis of Nations data base.

Note: H/C: highly dynamic/competitive position (rising market share for highly dynamic products);
 L/C: less dynamic/competitive position (rising market share for less dynamic products);
 H/U: highly dynamic/uncompetitive position (falling market share for highly dynamic products);
 L/U: less dynamic/uncompetitive position (falling market share for less dynamic products).
 For further explanation see text.

sectors, rather than upgrading in favour of more dynamic products. The situation is much the same for Argentina, whereas Mexico and Brazil have been gaining market shares in both less dynamic

and highly dynamic products. The export structure in these two countries, particularly Mexico, is much closer to that of the second-tier NIEs than in Chile and Argentina.

E. Export-oriented development strategies in the East Asian NIEs³⁴

The economic transformation of East Asia has not been a spontaneous process. It cannot be explained by a peculiarly favourable set of initial conditions in these countries, nor has it been driven solely, or even mainly, by market incentives and disciplines. Rather, Governments in all countries of the region have pursued policies aimed at restructuring the market in ways that reduce the uncertainty surrounding the achievement of specific development goals.³⁵ These policies have been designed to address not only market failures, but also a number of problems stemming from the organization of industry (particularly in relation to scale economies and the supply of entrepreneurial capabilities), the structure of public institutions (particularly in relation to the provision of public goods) and rent-seeking behaviour. At the core of East Asian success lies a set of institutions which keep policymakers connected to business while still enabling Governments to propose and implement appropriate measures directed at tackling a series of interrelated institutional and structural obstacles that can seriously hold back the process of investment, technological progress and exporting in a late-industrializing country.³⁶

1. Investment policies

East Asian Governments have successfully guaranteed certain basic conditions for capital accumulation by creating a pro-investment macroeconomic environment. "Pro-investment" is a better description of East Asian macroeconomic policies than "stable" or "low-inflationary", because countries in the region have experienced, often for prolonged periods, large fiscal and current account deficits, financial repression and inflationary pressures. However, while policy-

makers have used monetary and fiscal measures to boost investor confidence they have also avoided extreme policy shifts, with all that such shifts imply for volatility and uncertainty that could damage confidence.

Measures to stimulate investment have also included a number of incentives designed more specifically to boost profits above their free-market levels.³⁷ These measures fall into two broad categories. First, in all these countries, a range of fiscal instruments, including tax exemptions and special depreciation allowances, have been used to augment corporate profits and encourage their retention in order to accelerate capital accumulation. Such fiscal measures were pioneered in Japan during the 1950s, were used extensively in the early stages of labour-intensive manufacturing in Taiwan Province of China, following the Statute for Encouragement of Investment introduced in 1960, and were employed with considerable success in the Republic of Korea to promote capital-intensive industries during the 1970s. Fiscal incentives were also introduced at an early stage in the second-tier NIEs. Malaysia's 1958 Pioneer Industrial Ordinance offered various tax incentives, and similar measures were introduced by Thailand's Board of Investment, established following passage of the Investment Promotion Act of 1959. Singapore, which became independent in 1965, has used an extensive array of fiscal incentives in efforts to promote investment in a range of industries with "pioneer status".³⁸

Second, a combination of selective trade, financial and competition policies has been used to create "rents" which, by increasing profits, enhance the potential for corporate investment. In all the East Asian NIEs, with the exception of Hong Kong, protection, along with restrictions on competition

among domestic enterprises, has been an important source of rent for infant industries.³⁹ The degree and duration of protection have varied significantly among countries and sectors. In general, the first-tier NIEs appear to have been more selective in their use of such measures, while the second-tier ones followed, in their early stages of growth, a more conventional strategy of import substitution.

Controls on interest rates and direct allocation of credit have been a further type of instrument used for augmenting profits. Although such measures have been among the most successful in accelerating capital formation, the extent of their use and their impact varied considerably among countries according to the structure of domestic financial systems. The measures were used with particular success in Japan during the 1950s and 1960s through an “indirect finance method” whereby credit was mainly allocated by private sector financial institutions under government guidance. A similar arrangement between large conglomerates and a limited number of private banks privileged by the Government has been resorted to in Thailand.⁴⁰ In the Republic of Korea, directed credits were used to favour large domestic conglomerates in priority sectors, albeit under state control following the nationalization of the banking sector in 1961. State-directed credits were also used, with rather more mixed results, in Indonesia during the 1970s and 1980s.⁴¹ Taiwan Province of China and Malaysia have been more cautious in using these measures, although in both cases sectors with large public enterprises have received preferential treatment, including direct allocations from the government budget.⁴²

While these measures enhanced the role of corporate savings in capital accumulation, policymakers in East Asian NIEs did not believe that channelling resources into the hands of potential investors was enough. There was no guarantee that corporations would use them for productive investment, or that all the investments made would in the long run sustain rapid productivity growth. There was always the possibility that the resources would be used simply to increase luxury consumption. Consequently, East Asian Governments have severely restricted consumption of luxury goods, both directly through, for example, control of imports and of domestic production of like goods, and indirectly through high taxation and restrictions on consumer credit. They also tried to eliminate speculative investment opportunities by

restricting capital flows during the initial stages of development.⁴³

This mixture of incentives and disciplinary measures has created and sustained a dynamic investment-profits nexus in all the East Asian NIEs; high profits have enhanced the capacity of firms to invest, which in turn has increased profits by enhancing both rates of capacity utilization and the pace of productivity growth. However, an important difference between the first-tier and second-tier NIEs lies in the sectoral bias of policies supporting the investment-profits nexus. In the first-tier NIEs policies focused from an early date on manufacturing, initially in low-skill industries but shifting to more sophisticated industries as the economies matured. In contrast, the potential contribution of natural resource rents to economic growth in South-East Asia led policymakers to concentrate on strengthening the profit-investment nexus in the primary sector, while efforts to accelerate and deepen the investment process in import substitution industries were delayed or else implemented on a largely ad hoc basis.

2. Trade and industrial policies

Given the relative paucity of natural resources in the first-tier NIEs, it was evident that efforts to promote export industries would have to concentrate on labour-intensive manufactures, which enjoyed the advantage of relatively cheap, unskilled labour. However, the manufacturing sector was far from being competitive in foreign markets in terms of both price and quality, and during the 1950s Governments promoted exports through a variety of subsidies, including tariff rebates, tax exemptions, preferential export credits and export credit insurance. Although these measures produced mixed results, and indeed the export drive somewhat faltered in the Republic of Korea and Taiwan Province of China in the late 1950s and early 1960s, they provided the foundations for a reinforcement of such policies from the early 1960s, when measures to raise profits and investment also facilitated a more systematic promotion of manufactured exports.⁴⁴ Moreover, Governments were also obliged to exercise considerable discipline over business, in order to meet export targets, through tax penalties, withdrawal of import licences and reduced access to credit.

However, what distinguishes the role of government policies in the export-investment nexus in

East Asia, particularly in the first-tier NIEs, is not so much the concern to fully exploit gains from labour-intensive manufactures, but rather an anticipation of the future difficulties that these industries would face, including rising wages, limits to productivity growth, and constraints on demand expansion in export markets. Overcoming these difficulties required gradually and purposefully nurturing a new generation of industries, with greater potential for innovation, productivity growth and export dynamism. East Asian Governments have encouraged investment in a number of such industries at each stage of development, whenever they were deemed suitable for promotion, given existing technological and managerial capabilities.⁴⁵

In addition to promoting investment, Governments, particularly in the first-tier NIEs, actively encouraged the establishment of a domestic capital goods industry. Measures applied included reinstating import restrictions, rolling back tax exemptions on the import of certain intermediate and capital goods and granting higher investment tax credits to businesses purchasing domestically produced machinery. In addition, a policy was pursued of building up a technological capacity at the national, industry and even firm level. In the first-tier NIEs, tax and other incentives for enterprise training were complemented by a more detailed national training programme which placed greater emphasis on technical subjects at higher levels of education and on greater industry involvement in vocational training schemes. Measures to facilitate local R&D, including direct financial subsidies, particularly where projects were large and risky, have also been extensively used. In both the Republic of Korea and Taiwan Province of China, as well as more recently in the second-tier NIEs, regional policy has also been used to support technological upgrading and the diversification of industrial structure through, for example, science parks and special industrial estates.⁴⁶

Concerned that investors might not adopt a sufficiently long-term perspective in upgrading industry, Governments throughout East Asia have assumed a more direct involvement in the investment process; among other measures, they have encouraged mergers and restricted entry into specific industries, promoted cartels for specific purposes such as standardization, specialization and exports, and undertaken direct public investment in industry. In some countries, notably in Japan and the Republic of Korea, these objectives

have been pursued by powerful economic bureaucracies working in close collaboration with large domestic conglomerates. In Taiwan Province of China, Indonesia and Malaysia similar efforts at coordination have been pursued, but in the context of a large state industrial sector. However, coordination has not meant less competition. Market rivalry has often been intense and in most cases incentives to raise profits have been closely linked to performance standards.⁴⁷

As industries built up technological and managerial capabilities and became internationally competitive, protection and other forms of support were gradually withdrawn. The range of incentives and disciplines was redesigned to push firms in these industries into the international market as the new generation of exporters which would earn the foreign exchange necessary for the import of capital goods needed by the succeeding generation of infant industries. As a result of this process, at any given time the East Asian economies have contained a spectrum of protectionist measures and export incentives for industries at varying degrees of maturity - a phenomenon which is often misleadingly described as a "neutral incentive regime". Hence there was not the conventional dichotomy between an import substitution strategy and export promotion strategy, as both were integral parts of a single strategy which aimed to accelerate investment and productivity growth in the long run and enhance the pace of innovation.⁴⁸

Although this process of upgrading has been an ubiquitous one in East Asia, it has proceeded at a different pace and with differing degrees of success in individual countries. The economies of Hong Kong and Singapore were too small to support a wide range of scale-intensive heavy industries, and the scope for industrial policies was correspondingly much more limited. The pace of upgrading has nevertheless been much more rapid in Singapore than in Hong Kong, in large part because the former used a variety of market-supplementing policies to build up managerial and technological capabilities in support of its shift to high technology activities.⁴⁹ Despite the use of more detailed industrial policies in support of upgrading in Taiwan Province of China and the Republic of Korea, there are also instructive differences between the two. In particular, the absence of large domestic firms in the former economy, primarily due to political factors, has led industrial policymakers to concentrate their upgrading efforts on small- and medium-sized enterprises, on

the one hand, and state enterprises on the other, to an extent not found in the Republic of Korea. These differences are clearly reflected in their different export structures discussed above.

Moreover, it is important to recognize that mistakes were made in this process. However, policymakers were able to learn from these mistakes in subsequent efforts at upgrading. In the Republic of Korea, for example, upgrading in the textile industry in the late 1970s was hampered by policy measures which were biased against new entrants to the industry, particularly SMEs. Steps to correct these mistakes were taken in the late 1980s, enabling the textile industry to gain competitiveness in higher market niches thereafter. The experience acquired in this respect also proved of value in upgrading the electronics industry.⁵⁰

In the second-tier NIEs, export diversification of primary products has received strong policy support through investment incentives and the funding of research in resource-based sectors.⁵¹ However, although lagging behind the first-tier NIEs, their recent switch from primary exports suggests that they, too, have been using industrial policy to promote manufacturing exports beyond what market signals dictated. This switch began in Malaysia following adoption of the 1968 Investment Incentives Act but was pursued more systematically from the mid-1980s, when more generous incentives were given for manufacturing investments and exports.⁵² In Thailand it began in the 1970s, when fiscal incentives and credit allocation measures were switched to the promotion of manufactured exports. In Indonesia it was delayed until the mid-1980s, when its traditional exports suffered from the oil price shock; exchange rate policy was then used as a major instrument.⁵³ However, in all these countries, and as discussed in more detail in the previous chapter, regional influences from Japan and the first-tier NIEs also played a very important role in the subsequent growth of manufactured exports, from the mid-1980s onwards.

Recently, the second-tier NIEs have switched to more selective industrial policies aimed at diversifying their output and developing a capital goods sector. Especially since 1988, Malaysia has made concerted efforts to move into higher value-added activities by deepening local supply linkages, revising its incentive schemes to encourage high-technology exports and strengthening the human resource base, including through training and R&D. Indonesia's efforts at upgrading have concentrated

on the steel and aircraft industries. The results, particularly in aircraft, have been impressive; the state-owned aircraft producer has made considerable progress in achieving technological competence and broadening the skill base, and has shown remarkable ability to develop close business relationships with the world's leading aircraft producers, particularly through subcontracting. The rising share of scale-intensive exports is a clear result of these policies. However, the cost of these projects has been very high and the backward and forward linkages necessary for a more widely based and sustained development have yet to emerge; more recently, policymakers have identified a broader range of industries through which to pursue the upgrading process. Although Thailand has been the least aggressive of the three countries in pursuing industrial upgrading, efforts have been renewed since the late 1970s to strengthen the capital goods sector, including through increased protection. Moreover, industrial policy has become more firm- and industry-specific and involves greater conditionality. This switch has also coincided with efforts to improve the coordination of regional, industrial and investment policies that are reflected, for example, in the Eastern Seaboard Project.⁵⁴

The challenge of industrial upgrading in the second-tier NIEs has led them in a policy direction pursued earlier in the first-tier. The measures used have provoked considerable debate about whether the beneficiary industries are strategically linked with the rest of the economy and are ones which can significantly advance industrialization efforts. Despite flaws in these policies, there can be little doubt that the extent of structural transformation achieved is well beyond what was possible by exclusive reliance on market forces and private initiatives. However, the measures have not been designed and implemented in the context of a broad-based industrial strategy or through a tailored institutional structure of the kind found in the first-tier NIEs, and there is still uncertainty about the future course of upgrading in these economies.

3. Foreign direct investment and technology policies

Major new industries, particularly in export sectors, cannot be easily - and sometimes not at all - established and developed without some form of technological and other help from companies in the advanced industrial countries. However, there are

different ways in which such help can be extended. Moreover, without appropriate measures to strengthen the domestic technological base, access to foreign technology is unlikely by itself to sustain rapid economic growth.

As discussed in greater detail in *TDR 1994*, both the Republic of Korea and Taiwan Province of China consciously chose to tap foreign capital in ways other than through FDI, a choice which also implied resort to other forms of technology transfer. Reverse engineering of imported goods, technology licensing and original equipment manufacture were all extensively used in the context of a strategy to support indigenous skills and technology development. Managerial and technical assistance from Japanese companies also played an important role. For instance, in the Republic of Korea a subcontracting relationship between Hyundai Heavy Industries and the Kawasaki Shipbuilding Company was accompanied by the supply of proven designs and the training of engineers and technicians both on site and in Japan. Similarly, Nippon Steel acted as an engineering consultant at a crucial stage in the development of POSCO, the state-owned steel producer. In both industries the country established world-class industries within the space of a decade.⁵⁵ Without such assistance, the task of catching-up would certainly have been far more difficult. However, in all such cases, the Government provided public information services as well as direct support to indigenous firms dealing with foreign firms exerting considerable market power in the area of technology transfer.

In the Republic of Korea where government measures to upgrade were focused on strengthening domestic capabilities, restrictions on FDI were commonly used to protect domestic conglomerates (*chaebols*). However, where it was permitted, FDI did play an important role, in particular as a source of foreign exchange in export processing zones; and the mere threat that it might be permitted in a particular sector was enough to discipline domestic producers. When FDI was allowed in, domestic content agreements and technology screening were extensively used, with full government support.⁵⁶ Similar measures were often also used in Taiwan Province of China, where, although the space between SMEs and the state sector left more room for TNC involvement, and so for a more flexible policy towards FDI, a list of industries where foreign investment was prohibited lasted until the late 1980s.

In both economies successful upgrading has, over the past decade, allowed a more liberal approach to FDI, in line with their higher levels of industrialization and the emergence of their own TNCs. In Singapore, which had a weak tradition of local entrepreneurship but a thriving, outward-looking entrepôt activity, export-oriented industrialization relied heavily on TNCs. However, policy subsequently targeted specific manufacturing and service activities, through a variety of incentives and the provision of training facilities and publicly funded R&D institutions, with the aim of attracting the right kind of TNC participation. In sharp contrast to policy in all three of these economies is the *laissez-faire* approach to FDI adopted by Hong Kong, which, as discussed above, has also been the least successful of the East Asian NIEs in upgrading. However, while Hong Kong continues to grow and prosper, it is doubtful whether it is an example for other developing countries to follow:

In view of the exceptional initial circumstances of the territory, *laissez faire* would not by itself be sufficient to lead to the Hong Kong-kind of industrial or export development in typical developing countries. Furthermore, the lack of industrial deepening and the massive deindustrialization over time follow directly from its absence of industrial policy, and in the absence of a gigantic and thriving hinterland to service a similar policy would be deemed undesirable in other developing economies. In brief, the case does not conclusively establish a general case for fully liberal policies on trade or FDI.⁵⁷

To date, the approach to FDI in the second-tier NIEs appears to have been closer to that of Hong Kong than the other first-tier NIEs, although recently the difference seems to have been narrowing. Export-oriented FDI was attracted from an early date into the primary sector, but efforts to draw it into manufacturing began only in the 1970s; they were intensified in the 1980s, with a series of fiscal incentives, relaxed ownership requirements and remittance laws and the establishment of export processing zones.⁵⁸ These measures, combined with strong regional dynamics, have generated the export growth discussed earlier in this chapter. However, only limited use has been made of other measures to gain access to foreign technology, and more dynamic industrial policies to establish stronger domestic industries have lagged, in part due to complex domestic political factors. In re-

cent years, partly as a response to concerns about such heavy reliance on FDI, more targeted measures have begun to be pursued that conform more to those adopted in the first-tier NIEs, including

the use of local content agreements, more selective incentives to attract higher value-added activities and greater efforts to capture FDI spillovers in the areas of training and R&D.

F. Some policy lessons

Given the variety of experience in East Asia, it would be misleading to draw over-simplified conclusions and lessons for other countries. None the less, the structural changes underpinning these experiences are broadly familiar from over two centuries of industrial development. What distinguishes these economies from earlier industrialization is the very rapid pace of change which has been sustained over several decades.

Certainly, the tendency in recent years to polarize the development challenge into a series of opposing choices - State versus market, outward-versus inward-oriented development, investment-led versus export-led growth - finds little justification in this experience. Most of these economies have pursued an export-oriented strategy combined with varying degrees of domestic protection, and they have done so for familiar reasons - in particular, to meet the balance of payments constraint which in many other developing countries has throttled rapid economic growth. But in addition, upgrading export structures in line with shifts in competitiveness has been an integral part of broader efforts to deepen industrial and technological capabilities.

The world market has been one important source of discipline over this process. However, successful upgrading has not been the spontaneous outcome of market forces. Rather, from the discussion in this and the previous chapter, it is possible to conclude that rapid economic growth involved a mix of economic policies to accelerate and coordinate investment and promote exports. These policies were designed and implemented in a variety of ways, so as to accommodate different levels of economic development, different resource endowments and different macroeconomic circumstances.

Even in the initial stages of industrialization, where export opportunities were in low-skill manufactures, low wages and existing factor proportions were not seen as the basis for sustained growth. Rather, enhancing productivity was an integral part of export promotion at this stage. However, in view of the balance of payments constraint and the limits on exporting manufactures embodying low levels of skill, a sophisticated infant industry programme was implemented relatively early in the industrialization process so as to begin building up capacity and know-how in sectors producing more skill-intensive consumer goods, capital goods and intermediate goods. Differences in the design and implementation of these programmes explain much of the variation in economic performance, particularly between the first-tier NIEs and second tier. In some cases, as in Singapore, particular emphasis was placed on human capital, while in others, as in Taiwan Province of China and Malaysia, the state sector played a central coordinating role; in yet other economies the State nurtured large private firms, often closely allied with the financial sector, as in the Republic of Korea and Thailand, so as to better pursue efforts to upgrade and diversify industrial output and exports. Because these new industries were destined to become the next generation of export industries, trade policy also began to be more entwined with technology and industrial policies. In East Asia this involved the timely shift in the incentive structure towards export promotion through changes in tariff policy and the linking of fiscal and credit support to export targets. In the most successful cases, liberalization measures have been sequenced so as to gradually increase the pressure from international markets to improve productive efficiency and product quality.

Because new skills and technology are embodied in new capital equipment, all such

programmes have gone hand-in-hand with a rapid pace of investment. However, policies in East Asia have evolved, with the growing sophistication of industrial activity becoming increasingly conditional on specific performance criteria in such areas as training and R&D. Over the longer term in the most successful cases, a denser network of private and public institutions responsible for the management of technological and organizational upgrading at all levels of society has evolved.

Efforts to strengthen domestic entrepreneurial and technological capacities have not evolved in isolation; using foreign technology has been an essential part of the catching-up process. The role of capital goods imports at crucial stages in the industrialization process has been important in all East Asian economies, but FDI has also been used successfully, so as to complement their domestic sources of growth by compensating for deficiencies in technology and in organizational skills. However, the role of FDI in the export-investment nexus proved to be a complex one. The extent of reliance on it varied considerably among countries and, because the assumption of automatic spillovers from foreign affiliates was rejected, a strategic approach, linking FDI to a wider national development strategy, particularly in relation to exporting and upgrading, has been followed. In this respect, the approach adopted towards domestic firms, involving a mixture of incentives and

controls, was extended to foreign affiliates. None the less, the success of the larger first-tier NIEs in reducing their dependence on foreign capital in line with the successful upgrading of domestic capabilities distinguishes them from the experience so far of the second tier.

At the core of these successful development experiences lies a series of institutional ties and more informal individual networks that connect the public and private sectors, allowing information to flow between business and Government without compromising the ability of policymakers to propose and implement development goals even when they did not coincide with a narrow business interest. The term "developmental State" has been coined to describe the set of government institutions, capabilities and policies which have been responsible for this aspect of East Asian growth. However, competent government institutions did not construct an effective system of government-business relations without comparable private counterparts. In general, strengthening the domestic entrepreneurial class through raising profits and providing a series of incentives and controls to channel those profits into new investment projects, in particular those that were export-oriented and stood to benefit from official and officially assisted export promotion measures, have been essential elements in the development process in East Asia. ■

Notes

- 1 See *TDR 1992*, Part Three, chap. I, and G. Helleiner, *Trade, Trade Policy and Industrialization Reconsidered* (Helsinki: UNU/WIDER, Oct. 1995), World Development Studies, No. 6. For lessons that can be drawn from an earlier generation of, mainly European, late industrializers at the end of the last century, see P. Bairoch and R. Kozul-Wright, "Globalization myths: Some historical reflections on integration, industrialization and growth in the world economy", *UNCTAD Discussion Paper, No. 113* (Geneva, March 1996).
- 2 See, for example, J. Bhagwati, "Free trade: old and new challenges", *The Economic Journal*, Vol. 104, March 1994.
- 3 See J. A. Ocampo, "New Theories of International Trade and Trade Policy in Developing Countries", in M. Agosin and D. Tussie (eds.), *Trade and Growth: New Dilemmas in Trade Policy* (London: Macmillan, 1993).
- 4 On the links between trade and technological progress see G. Grossman and E. Helpman, *Innovation and Growth in the Global Economy* (Cambridge: MIT Press, 1991); World Bank, *World Development Report 1991: The Challenge of Development* (New York: Oxford University Press for The World Bank, 1991), chap. 5; D. Keessing and S. Lall, "Marketing Manufactured Exports from Developing Countries: Learning Sequences and Public Sup-

- port”, in G. Helleiner (ed.), *Trade Policy, Industrialization and Development: New Perspectives* (Oxford: Clarendon Press, 1992). Although traditional scale economies are an important element of an outward-oriented development strategy, evidence both on their presence and on the link between exports and productivity growth is not conclusive. See the various country studies in G. Helleiner (ed.), *Trade Policy and Industrialization in Turbulent Times* (London: Routledge, 1994).
- 5 This notion of a virtuous circle linked to manufacturing exports is closely associated with the work of the late Lord Kaldor. See N. Kaldor, “The Role of Increasing Returns, Technical Progress and Cumulative Causation in the Theory of International Trade and Economic Growth” in F. Targetti and A.P. Thirlwall (eds.), *The Essential Kaldor* (London: Duckworth, 1989).
 - 6 See C. Freeman, “Interdependence of Technological Change with Growth of Trade and GNP”, in M. Nissanke and A. Hewitt (eds.), *Economic Crisis in Developing Countries* (London and New York: Pinter, 1993).
 - 7 There is indeed considerable evidence to show that the role of exports in financing imports is an important one, albeit one that varies significantly over time due to the availability of foreign exchange from other sources. See H.S. Esfahani, “Exports, imports and economic growth in semi-industrialized countries”, *Journal of Development Economics*, Vol. 35, No. 1, 1991; H.G. Fung, B. Sawhney, W.C. Lo and P. Xiang, “Exports, imports and industrial production: evidence from advanced and newly industrializing countries”, *International Economic Journal*, Vol. 8, No. 4, Winter 1994.
 - 8 For sectoral savings see P. Honohan and I. Atiyas, “Intersectoral Financial Flows in Developing Countries”, World Bank, *PPR Working Paper*, No. 164, March 1989. For further discussion of the investment-profits nexus see *TDR 1994*, Part Two, chap. I, sect. G; Y. Akyüz and C. Gore, “The investment-profits nexus in East Asian industrialization”, *World Development*, Vol. 24, No. 3, March 1996; A. Singh, “Savings, Investment and the Corporation in the East Asian Miracle”, Study No. 9 prepared for the UNCTAD project on “East Asian Development: Lessons for a New Global Environment”, sponsored by the Government of Japan (Geneva: United Nations, March 1996).
 - 9 See D. McCarthy, L. Taylor and C. Talatti, “Trade Patterns in Developing Countries, 1964-1982”, in P. Bardham, A. Fishlow and J. Behrman (eds.), *International Trade, Investment, Macropolicies and History: Essays in Memory of Carlos F. Diaz-Alejandro* (Amsterdam: North Holland, 1987); A. Maizels, “Commodity market trends and instabilities: Policy options for developing countries”, *UNCTAD Review 1994* (United Nations publication, Sales No. E.94.II.D.19).
 - 10 See *TDR 1991*, Part Two, chap. III; *TDR 1992*, Part Three, chap. I; and *TDR 1994*, Part Two, chap. I.
- The question of how best to manage this process provides the starting point for a “new” trade theory; see P. Krugman (ed.), *Strategic Trade Policy and the New International Economics* (Cambridge: MIT Press, 1986). Despite the adjective, the origins of this approach can be traced back to Adam Smith, Joseph Schumpeter, Allyn Young, Gunnar Myrdal and Nicholas Kaldor. On the relationship between the “old” and the “new” theories see J. Stiglitz “Comments on ‘Toward a counter-revolution in development theory’ by Paul Krugman”, in *Proceedings of the World Bank Annual Conference on Development Economics 1991* (Washington, D.C.: The World Bank, 1992).
- 11 See J. Fagerberg, “Why Growth Rates Differ”, in G. Dosi *et al.* (eds.), *Technical Change and Economic Theory* (London: Pinter, 1988); C. Freeman, *op. cit.*; S. Lall, “The Creation of Comparative Advantage: The Role of Industrial Policy” in Irfan ul Haque *et al.*, *Trade, Technology and International Competitiveness* (Washington, D.C.: The World Bank, 1995).
 - 12 For an elaboration of these points, see UNCTAD, *Science and Technology in the New Global Environment: Implications for Developing Countries* (United Nations publication, Sales No. E.95.II.D.14) and I. ul Haque, *et al.*, *op. cit.*
 - 13 See UNCTAD, *World Investment Report 1995: Transnational Corporations and Competitiveness* (United Nations publication, Sales No. E.95.II.A.9), p.229.
 - 14 The research on FDI spillovers is surprisingly thin. For a recent survey see M. Blomström and A. Kokko, “Multinational Corporations and Spillovers”, *CEPR Discussion Paper*, No.1365, London, April 1996.
 - 15 See UNCTAD, *Science and Technology in the New Global Environment:*, p.22.
 - 16 S. Ostry and M. Gestrin, “Foreign direct investment, technology transfer and the innovation-network model”, *Transnational Corporations*, Vol. 2, No. 3, Dec. 1993.
 - 17 Primary commodities accounted for 80 per cent of total exports in the Republic of Korea in 1955, the principal items being silk, rice, tungsten and iron ore. In Taiwan Province of China they accounted for nearly 90 per cent, the staple exports being sugar and rice.
 - 18 See M. Mortimore, *Transforming Sitting Ducks into Flying Geese: The Mexican Automobile Industry*, No. 26 in the ECLAC series *Desarrollo productivo*, Santiago, Chile, 1995.
 - 19 See A. Estache and J. Morisset, “Foreign investment and exports: correlation or causality? Evidence from over 70 LDCs” (Washington, D.C.: The World Bank and IFC, 1995), mimeo (first draft).
 - 20 It is necessary to treat these figures with caution, since they refer to affiliates which often are joint ventures and so may include a large domestic contribution. For instance, according to some estimates, in 1986 foreign affiliates employed 11.4 per cent of

- all manufacturing workers in Taiwan Province of China, but if the numbers are weighted by equity holdings, the share falls to 6.5 per cent. See Chi Schive and Jenn-Hwa Tu, "Foreign Firms and Structural Change in Taiwan", in E.D. Ramstetter (ed.), *Direct Foreign Investment in Asia's Developing Economies and Structural Change in the Asia-Pacific Region* (Boulder: Westview Press, 1991), table 6.6.
- 21 See C.H. Lee and E.D. Ramstetter "Direct Investment and Structural Change in Korean Manufacturing" in E.D. Ramstetter (ed.), *op. cit.*, p. 124, table 5.8.
- 22 For a detailed discussion of the measures adopted in the Republic of Korea during its first stages of industrial development see *White Paper on Foreign Investment* (Seoul: Economic Planning Board, 1981). On differences between the Republic of Korea and Taiwan Province of China in the approach to FDI, see S. Lall, "Industrial strategy and policies on foreign direct investment in East Asia", *Transnational Corporations*, Vol. 4, No. 3, Dec. 1995.
- 23 See UNCTAD, *World Investment Report 1995* ..., chap. V, sect. B.2(b).
- 24 S. Lall, *op. cit.*, pp.12-14.
- 25 For the Malaysian case, see R. Rasiah, *Foreign Capital and Industrialization in Malaysia* (London: Macmillan, 1995).
- 26 See UNCTAD, *Science and Technology in the New Global Environment:*, table 2.
- 27 See the ESCAP contribution, "Comparative Analysis of Development of the Export-oriented Electronics Goods Sector in Selected Countries of the ESCAP region", in UNCTAD, *Expansion of Trading Opportunities to the Year 2000 for Asia-Pacific Developing Countries: Implications of the Uruguay Round and Adaptation of Export Strategies* (United Nations publication, Sales No. GV.E.96.0.7).
- 28 For a recent discussion of this issue see "Vital and vulnerable", *Far Eastern Economic Review*, 23 May 1996.
- 29 The CAN system contains data for 239 product groups at the three-digit level of SITC, as from 1963, for the trade of 88 countries with OECD countries. The system provides various measures of competitiveness in OECD import markets. For a description of the system see ECLAC, *CAN: Analisis de la Competitividad de los Paises, Version 2.0* (LC/G.1863), Santiago, May 1995.
- 30 Throughout this section "market penetration" is used to indicate the share of a given product in imports of that product by OECD countries.
- 31 These 20 product groups (and their SITC/Rev.2 code) were: medicinal and pharmaceutical products (541); polymerization and copolymerization products (583); paper and paperboard (641); internal combustion piston engines and parts thereof (713); non-electric parts and accessories of machinery (749); automatic data processing machines and units thereof (752); parts and accessories of office machines and automatic data processing machines (759); telecommunications equipment other than television and radio-broadcast receivers and gramophones, and parts and accessories for telecommunications and sound recording and reproducing apparatus and equipment (764); thermionic, cold cathode and photo cathode valves and tubes, etc. (776); electrical machinery and apparatus (778); passenger motor cars and other passenger vehicles (781); parts and accessories of motor vehicles (784); aircraft and associated equipment and parts thereof (792); furniture and parts thereof (821); outer garments, women's, girls' and infants' textile fabrics (843); outer garments and other articles, knitted or crocheted (845); footwear (851); measuring, checking, analysing and controlling instruments and apparatus (874); baby carriages, toys, games and sporting goods (894); special transactions and commodities not classified, according to kind (931).
- 32 The 20 leading product groups (excluding fuels) in 1963 (and their SITC/Rev.2 code) were: meat and edible meat offals (011); wheat and meslin (041); fruits and nuts (057); sugar and honey (061); coffee and coffee substitutes (071); alcoholic beverages (112); wood products, simply worked (248); pulp and waste paper (251); cotton (263); wool and other animal hair (268); iron ore and concentrates (281); ores and concentrates of base metals (287); paper and paper board (641); textile yarn (651); iron and steel bars, rods, etc. (673); universals, plates and sheets of iron and steel (674); copper (682); passenger motor vehicles (781); parts and accessories of motor vehicles (784); and special transactions and commodities not classified according to kind (931). These product groups accounted for 30 per cent of all OECD imports in 1963, whereas the dynamic groups listed in note 31 accounted for 35 per cent of all OECD imports in 1993. It is interesting to note that the 1963 list contains 12 groups that consist of primary commodities, whereas the 1993 list does not contain any such groups.
- 33 In terms of market penetration of these 20 leading product groups, the first-tier NIEs accounted for 0.05 per cent of OECD imports, the-second tier for 0.03 per cent and Latin America for 0.4 per cent. In terms of their share of total exports to OECD they accounted for 2.1 per cent, 0.6 per cent and 1 per cent, respectively.
- 34 For a more detailed discussion of some of the issues considered in this section see *TDR 1994*, Part Two, chap. I.
- 35 On Japan as a model in this respect see D.I. Okimoto, *Between MITI and the Market* (Palo Alto: Stanford University Press, 1989).
- 36 See Irfan ul Haque *et al.*, *op. cit.*. The question of institutional reform is addressed in greater detail in a number of papers prepared for the UNCTAD Conference on "East Asian Development: Lessons for a New Global Environment" referred to in note 8. See, in particular, the papers by A. Singh, "Sav-

- ings, Investment and the Corporation in the East Asian Miracle"; K.S. Jomo, "Lessons from Growth and Structural Change in the Second-tier South-East Asian Newly Industrializing Countries"; and T.-J. Cheng, S. Haggard and D. Kang, "Institutions, Economic Policy and Growth in the Republic of Korea and Taiwan Province of China".
- 37 The discussion which follows generally refers to measures to stimulate overall investment, regardless of source. Countries have also provided incentives specifically to FDI. There is little evidence, however, that these incentives have had any major impact on the investment decisions of TNCs.
- 38 See V. Tanzi and P. Shome, "The Role of Taxation in the Development of East Asian Economies", in T. Oto and A. O. Krueger (eds.), *The Political Economy of Tax Reform* (Chicago, Ill: Chicago University Press, 1992).
- 39 As with many other related policies, Japan was the first to pursue such measures. See K. Yamamura, "Caveat Emptor: The Industrial Policy of Japan" in P. Krugman (ed.), *Strategic Trade Policy and the New International Economics* (Cambridge, Mass: MIT Press, 1986).
- 40 See M. Rock, "Thai industrial policy: How irrelevant was it to export success?", *Journal of International Development*, Vol. 7, No. 5, 1995.
- 41 See A. MacIntyre, "The Politics of Finance in Indonesia: Command, Confusion and Competition", in S. Haggard *et al.* (eds.), *The Politics of Finance in Developing Countries* (Ithaca, NY: Cornell University Press, 1993); S. Sen, "Growth Centres in South-East Asia in the Era of Globalization", a forthcoming UNCTAD *Discussion Paper*.
- 42 See D. Rodrik, "Getting intervention right: How South Korea and Taiwan grew rich", *Economic Policy*, No. 20, April 1995; S. Sen, *op. cit.*
- 43 See Ha-Joon Chang, *The Political Economy of Industrial Policy* (Basingstoke: Macmillan, 1994) and Yung Chul Park and Chi-Young Song, "Managing Capital Flows: The Experiences of Korea, Thailand, Malaysia and Indonesia", in UNCTAD, *International Monetary and Financial Issues for the 1990s. Research Papers for the Group of Twenty-four*, Vol. VIII (forthcoming).
- 44 In the Republic of Korea in the early 1960s, for example, a series of institutional reforms were introduced, such as establishment of the Korea Trade Promotion Corporation, a monthly export promotion conference and the export-targeting system. See S. Haggard *et al.*, "Policy Reform in Korea", in R.H. Bates and A.O. Krueger (eds.), *Political and Economic Interactions in Economic Policy Reform: Evidence From Eight Countries* (Oxford: Blackwell, 1993).
- 45 This type of intervention has been obscured by arguments about the effectiveness of industrial policy in countries at a more advanced stage of development. Unlike developed countries, most developing countries do not initially operate at the technological frontier of international best practice. Consequently, promoting industrial development has not involved "picking winners" in an uncertain technological race based on innovation. For a more detailed account and review of the extensive literature on the experience of the first-tier NIEs in coordinating new investment initiatives, see *TDR 1994*, Part Two, chap. I.
- 46 S. Lall, "The Creation of Comparative Advantage: The Role of Industrial Policy" in I. ul Haque *et al.*, *op. cit.*; and the papers on the Republic of Korea by Linsu Kim and on Taiwan Province of China by Chi-Ming Hou and San Gee in R. Nelson (ed.), *National Innovation Systems: A Comparative Analysis* (New York: Oxford University Press, 1993).
- 47 See A. Singh, "The causes of fast economic growth in East Asia", *UNCTAD Review 1995* (United Nations publication, Sales No. E.95.II.D.23).
- 48 See M. Kagami, *The Voice of East Asia: Development Implications for Latin America* (Tokyo: Institute of Developing Economies, 1995); and L. K. Mytelka, "Learning, Innovation and Industrial Policy: Some Lessons from Korea", in M. Storper, G. Thomadakis, and H. Tsipouri (eds.), *Industrial Policies for Latecomers* (London: Routledge, forthcoming in 1997).
- 49 See S. Lall, "Creating comparative advantage: country experiences, in I. ul Haque *et al.*, *op. cit.*
- 50 See L. Mytelka, *op. cit.*
- 51 See the report by the UNCTAD secretariat, "Analysis of National Experiences in Horizontal and Vertical Diversification, including the Possibilities for Crop Substitution: Malaysia" (UNCTAD/COM/73), Geneva, December 1995; J. Mayer, "Learning sequences and structural diversification in developing countries", *Journal of Development Studies* (forthcoming).
- 52 See S. Lall, "Malaysia: Industrial success and the role of government", *Journal of International Development*, Vol. 7, No. 5, 1995; R. Rasiah, *op. cit.*
- 53 See Y. van der Meulen Rodgers, "Indonesia's macroeconomic and trade performance", *The Journal of Developing Areas*, Vol. 30, No. 2, Jan. 1996; H. Hill, "Indonesia: from 'chronic dropout' to 'miracle'?", *Journal of International Development*, Vol. 7, No. 5, 1995.
- 54 The various policies described in this paragraph are set out in more detail in the relevant country studies contained in Part III of UNCTAD, *Expansion of Trading Opportunities to the Year 2000 for Asia-Pacific Developing Countries: National Strategies and Institutional Frameworks for Export Expansion* (New York: United Nations, 1995).
- 55 For an elaboration see A.H. Amsden, *Asia's Next Giant: South Korea and Late Industrialization* (New York: Oxford University Press, 1989), chaps. 11 and 12.
- 56 For a description of this policy up to the early 1980s, see Economic Planning Board, White Paper on Foreign Investment (*Oegoogin Tooja Baesuh*) (Seoul: Government of Korea, 1981).

- 57 S. Lall, "Industrial strategy and policies on foreign direct investment in East Asia", *Transnational Corporations*, Vol. 4, No. 3, Dec. 1995, p.12.
- 58 In Malaysia, for example, for companies which export more than 80 per cent of production, there is no requirement for local equity participation, but that requirement increases as the export share falls.

NATURAL RESOURCES, PROCESSING AND EXPORT DIVERSIFICATION

Differences among countries in natural resources and the quality of the labour force raise the question of to what extent these factors can explain the varying success of developing countries in diversifying their exports; and to the extent that they do so, should strengthening the human resource base, rather than trade and industrial policies, be the main concern of development policy in developing countries that are well endowed with natural resources?

The results of a cross-section regression for 80 developed and developing countries of the composition of their exports on their human capital and natural resources suggest that these variables are important in determining the composition of their trade.¹ In particular, being rich in natural resources and having a poor human-resource base appears to be detrimental to export diversification away from unprocessed commodities. But evidence on the link between processing and diversification in the primary sector and trade policy is not conclusive. Nevertheless, a possible conclusion from these findings is that economies that are well endowed with natural resources, rather than viewing this endowment as an obstacle to industrialization, should try to manage better the export proceeds it procures them and, where possible, engage in semi-processing for export by strengthening their stock of human capital and liberalizing trade. This is sometimes seen as replicating the experience of the second-tier East Asian NIEs.²

However, because a combination of rich natural resources and a well developed human resource base does not automatically lead to export diversi-

fication, the specific policy measures needed to facilitate diversification merit more careful attention. A comparison of East Asian and Latin American experiences - regions with comparable human resources - with export diversification in a number of areas can illustrate this point.

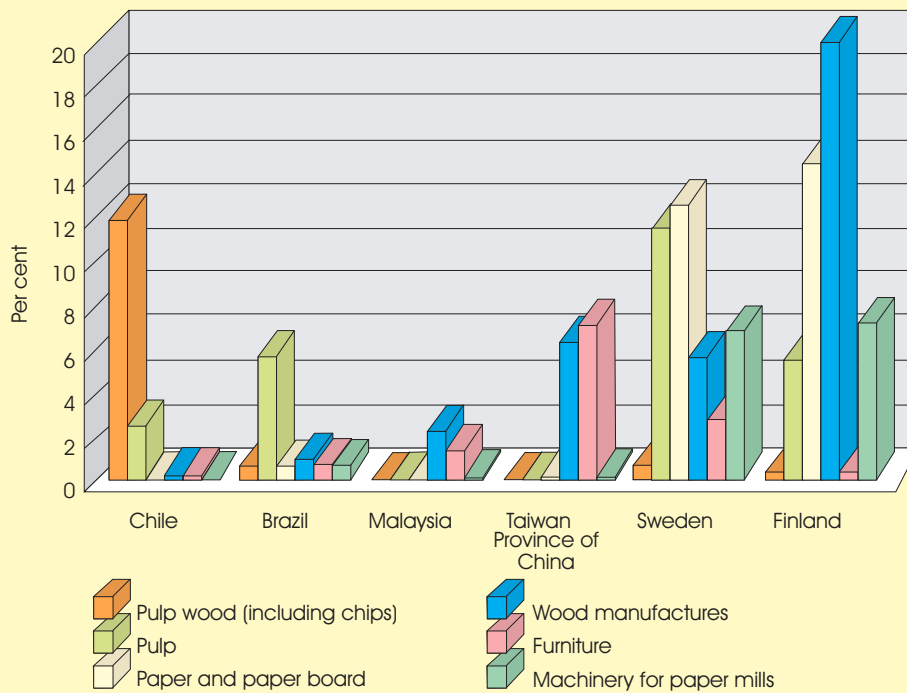
Part A of chart A-1 shows the differences in export structure in timber-related industries among a group of countries in each of these two regions that have important timber-related exports. The industries included involve activities (product groups) with varying degrees of processing, from pulpwood and chips, through pulp, paper and paper board, and wood manufactures to furniture, as well as the related industry of machinery for paper mills. Longer-run market prospects and productivity growth vary directly with the degree of processing involved in these activities. The chart shows, for each exporting country, its percentage share, for each of the product groups, in OECD imports. It can be seen that, while Chile's exports to OECD are almost entirely concentrated at the lower end of processing (pulpwood, especially chips, and some pulp) and those of Brazil on pulp, Malaysian forestry exports consist entirely of plywood and furniture. Taiwan Province of China has an export structure similar to Malaysia, although its exports, in contrast to the other countries considered, are based almost entirely on imported timber. The chart also shows the export structure of two temperate zone timber producers (Finland and Sweden), which is highly diversified in favour of more processed products.

Export structures are similar for iron-related industries (iron ore and concentrates, iron and steel,

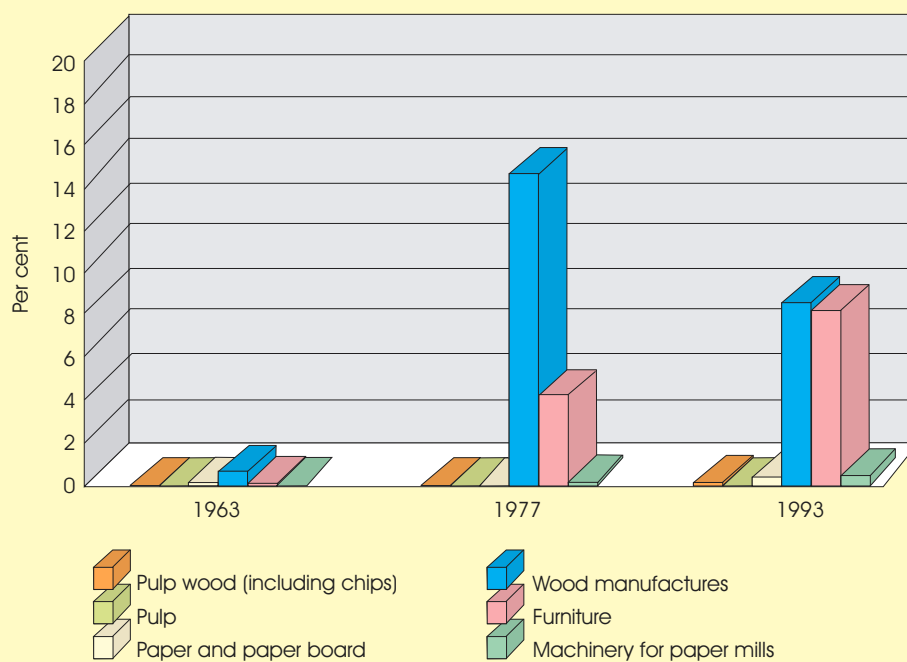
Chart A-1

EXPORT DIVERSIFICATION IN SELECTED COUNTRIES IN TIMBER-RELATED INDUSTRIES

A. Share in OECD imports of timber-related products, 1993
(Per cent)



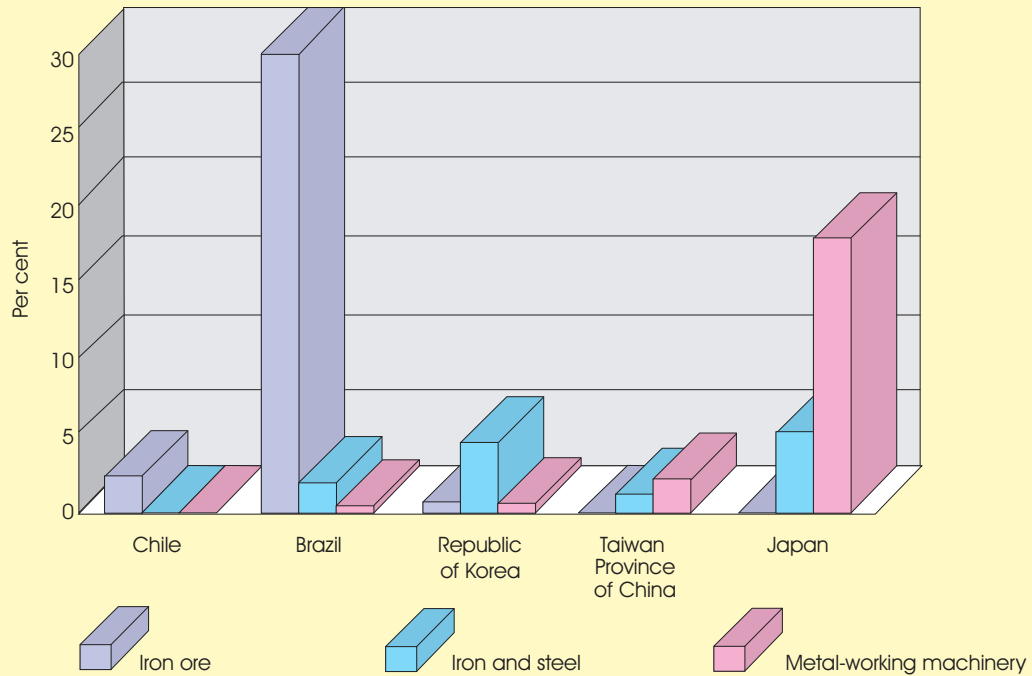
B. Combined share of Malaysia and Taiwan Province of China in OECD imports of timber-related products, a comparison of 1963, 1977 and 1993
(Per cent)



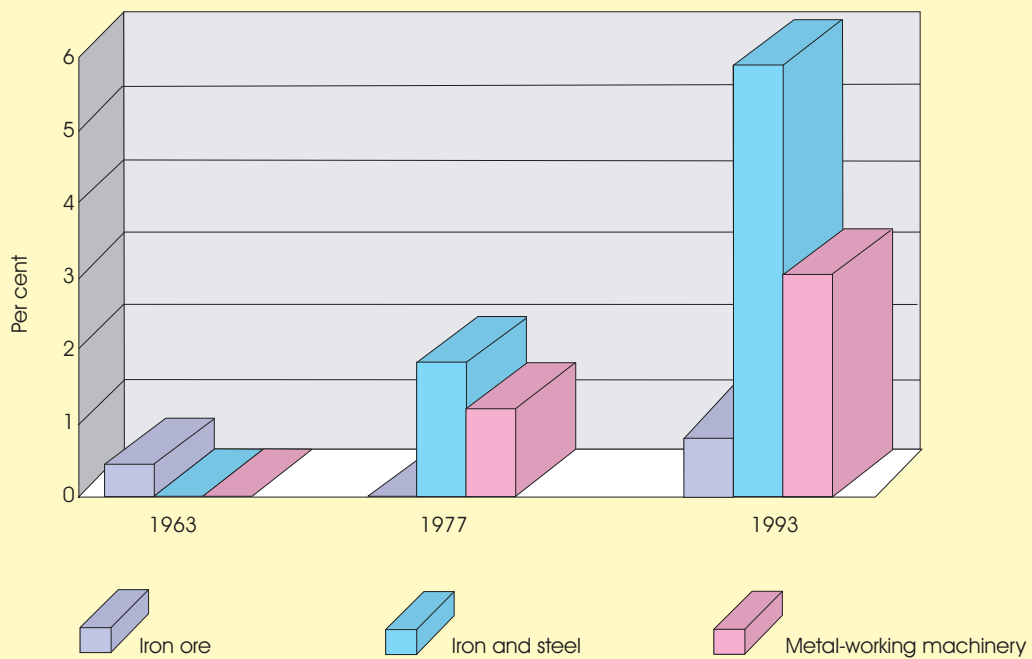
Source: ECLAC, Comparative Analysis of Nations data base.

EXPORT DIVERSIFICATION IN SELECTED COUNTRIES IN IRON-RELATED INDUSTRIES

A. Share in OECD imports of iron-related products, 1993
(Per cent)



B. Combined share of the Republic of Korea and Taiwan Province of China in OECD imports of iron-related products, a comparison of 1963, 1977 and 1993
(Per cent)



Source: ECLAC, Comparative Analysis of Nations data base.

and metal-working machinery), with again significant differences between the East Asian and the Latin American countries (see part A of chart A-2). These differences obviously cannot be explained in terms of human capital. Rather, the advantage of East Asian economies was gradually built up over time through a process of industrial upgrading. Part B of chart A-2 illustrates how the export structure in the Republic of Korea and Taiwan Province of China, taken together, has changed since 1963 as a result of this upgrading.

To explain these differences in export diversification, it is necessary to examine the nature of technological progress in these sectors. In particular, the technology required for natural-resource-based development is often determined by specific local production conditions. Under these circumstances a case can be made for R&D policies that take full account of the concerns of local producers. Moreover, the close link between technology and skill formation also means that training at the enterprise level is likely to be important. Consequently, export diversification requires appropriate technology and training policies so as to improve the technological, managerial and organizational capacities of domestic producers; technology transfer from

developed countries may be a complement to, but rarely a substitute for, these efforts.

An example where indigenous primary sector research-based technologies have been developed is Malaysia, in particular in palm-oil and cocoa production but also in timber-related processing activities. Two characteristics of Malaysia's strategy are worthy of note: R&D has often been financed by specific taxes or duties on production and/or exports; and there has been close public-private cooperation in terms of both the funding and the organization of R&D activities.³ For the timber industry, these efforts have been complemented by export promotion policies as well as by restrictions on log exports. As regards the iron and steel industries of the Republic of Korea and Taiwan Province of China, industrial policies have been instrumental in the upgrading process, including technical assistance in the use of imported technology, R&D to promote technological and managerial upgrading, and labour training schemes. In both economies close collaboration between the private and public sectors seems to have been a critical element.⁴ Perhaps just as telling, the recent success of Chile in diversifying its agricultural exports has also involved a more interventionist type of industrial policy than was extended to its timber and metal-based sectors⁵. ■

Notes

1 See J. Mayer, "Is having a rich natural-resource endowment detrimental to export diversification?" (UNCTAD/COM/RDS/5), Geneva, April 1996.

2 See, for example, *Global Economic Prospects and the Developing Countries, 1996* (Washington, D.C., The World Bank, 1996), chap. 4.

3 See UNCTAD, "Analysis of national experiences" (UNCTAD/COM/73).

4 On the upgrading of iron and steel in the Republic of Korea see A. Amsden, *Asia's Next Giant ...*; on Taiwan Province of China see R. Wade, *Governing the Market: Economic Theory and the Role of Government in East Asian Industrialization* (Princeton, N.J.: Princeton University Press, 1990).

5 See World Bank, *op. cit.*, p.54.

RESPONDING TO THE NEW GLOBAL ENVIRONMENT

A. Introduction

The East Asian experience examined in the two previous chapters offers some interesting lessons on how poor economies dependent on natural resources can make an effective transition to labour-intensive manufacturing, and then to more complex manufacturing industries essential for the attainment of high standards of living. Export orientation has played an important role in this process. In their early stages of industrialization, the first-tier NIEs of the region depended crucially on rapid growth of exports of labour-intensive manufactures to major industrial countries. This allowed them to make full use of their relatively abundant unskilled and semi-skilled labour, and to move to skill- and capital-intensive sectors without the balance-of-payments constraint on capital accumulation and technology transfer. Implementation of such an export-oriented development strategy required considerable government intervention in the context of a long-term industrial strategy.

However, it is often argued that the East Asian experience cannot easily be replicated by other developing countries because of changes that have taken place in the global trading environment. Such arguments generally take two forms. The first is the fallacy of composition argument.¹ This argument maintains that the export success of East Asian countries has been predicated on the failure of other developing countries to compete effectively in the markets of industrialized countries, where

the bulk of their exports were directed. With increased emphasis on export-led growth, the question arises of whether a simultaneous export push by a great number of developing countries, including in particular those with large economies, could lead to success for all. On its own, a small developing country can substantially increase its exports to industrialized countries without flooding the market and seriously reducing world prices of the products concerned. However, this may not be true for developing countries as a whole. If all developing countries become successful exporters of labour-intensive manufactures, there is the risk that the terms of trade will decline to such an extent that the benefits of any increased volume of exports may be more than offset by losses due to lower export prices; i.e. risk of “immiserizing growth”, to use the term coined by Bhagwati many years ago.² Some studies have even suggested that a decline in the terms of trade is already taking place, without, however, having yet reached the point of immiserizing growth.

Two additional features are pointed to in support of this thesis. The first is that growth in the developed world has slowed down considerably during the past two decades. Whereas the economies of OECD countries grew at an annual rate of almost 5 per cent during 1960-1973, in the past two decades growth has averaged 2.5 per cent. The second is that many labour-intensive industries have already been phased out in the developed

countries as East Asian NIEs have successfully penetrated these markets. Further penetration of these markets may be resisted in view of their growing labour market problems, including widespread unemployment and low wages for unskilled labour.

The second argument against the replicability of the East Asian export success is more straightforward and relates to national policy autonomy. It is often argued that the intensification of multilateral trade disciplines and the extension of their scope as a result of the Uruguay Round prohibit the use of some key policy tools to support and protect industries that were central to the export success of these countries. On this view, the only viable option is to actively and fully integrate into the global economy, rather than try to pursue a more selective strategy along East Asian lines.

This chapter addresses these issues. There can be little doubt that the global economy has been going through significant changes, some of which may pose difficulties for replicating the successful experience of East Asian NIEs. A proper understanding of possible new constraints is indispensable for avoiding pitfalls in the outward-oriented development strategy that is now being adopted by many developing countries. However, this does not mean that the East Asian experience of export-oriented industrialization has no relevance. The very same changes in the global trading environment also offer new opportunities, which were not open to the first-tier NIEs in their initial stages of industrialization. Developing countries today are less dependent on trade with the developed market-economy countries³ than were the East Asian NIEs by virtue of the fact that the very success of the latter has opened new trading opportunities for other developing countries. More generally, as discussed in chapter I, the increased diversity in their extent of industrialization provides much greater scope for expanding trade among developing countries, providing the potential for a mutually reinforcing process of industrialization along "flying geese" lines. Again, partly because of a more rapid dissemination of technology and greater flexibility and divisibility of production processes, the opportunities to diversify and upgrade are considerably greater today than they were for the first-tier NIEs.

Furthermore, many developing countries differ significantly from the first-tier NIEs in the size of their economies and resource endowments, and

these differences themselves call for a different approach to determining how much they need to depend on exports, what kind of industries to promote and what markets to target. As already noted, such differences exist both between the first- and second-tier NIEs and among the first-tier NIEs themselves. For instance, while the initial export industries have generally tended to be labour-intensive, there have been considerable differences in the product composition of such exports. Again, there are considerable differences among the first-tier NIEs in their degree of export orientation.

Together, these factors suggest that there is considerable scope for developing countries to formulate export-oriented industrialization strategies along the lines of East Asian NIEs without necessarily having the same degree of export orientation, exporting the same products, developing the same industries with the same speed or in the same sequence, or targeting the same markets abroad. However, avoiding potential pitfalls in formulating and implementing an export strategy requires constant monitoring of developments in markets for various manufactured products, projecting the possible evolution of global supply and demand, and paying close attention to the trade policies of the major trading countries. For many developing countries this may not be an easy task because of lack of information and resources. It may thus be worthwhile to explore the possibility of establishing, in an international body such as UNCTAD, a marketing-*cum*-information service (such as exists at the national level in Japan and the Republic of Korea - JETRO and KOTRA), to help developing countries formulate their export strategies so as to minimize the risk of fallacy of composition in labour-intensive manufacturing.

Similarly, while the Uruguay Round obligations reduce policy autonomy in developing countries, they also bring new opportunities. The discipline that the new multilateral trading system imposes on the industrial countries means improved security of market access for the exports of developing countries. Such security is vital for the latter if they are to avoid the fallacy of composition and immiserizing growth in their attempts to achieve export-oriented industrialization. Furthermore, strengthened multilateral disciplines can also encourage a more effective use of policy instruments in developing countries themselves, thereby helping to reduce some of the possible inefficiencies and waste associated with policy intervention.

B. Replicating the East Asian export-oriented industrialization process

1. What is meant by replication?

As discussed in previous chapters, the industrialization of East Asia has involved a dynamic interaction of manufactured exports with capital formation and growth whereby export ratios rose along with per capita income. However, this was not a linear process, and the growth of manufactured exports varied over time relative to that of GDP. During the early stages, exports of manufactures were negligible and primary goods accounted for the bulk of exports. Following the successful import-substitution phase, which was particularly short in the first-tier NIEs, labour-intensive manufacturing exports shot up, growing much faster than income. Over time, however, as the share of exports in GDP rose, export expansion slowed down. In the Republic of Korea, for instance, from the mid-1960s to the late 1970s the annual growth of manufactured exports was about twice that of GDP, but in the 1980s exports rose only moderately faster than GDP. The same also holds for Taiwan Province of China. It follows that the replication of the experience of the first-tier NIEs does not necessarily imply that developing countries at different levels of industrialization must have an equivalent export performance.

Moreover, there are considerable differences among the first-tier NIEs with respect to their manufactured exports in relation to GDP. Currently the proportion (excluding re-exports) is around 24 per cent in the Republic of Korea and Hong Kong, 36 per cent in Taiwan Province of China, and 70 per cent in Singapore. Indeed, the evidence clearly shows that the relation between per capita income and the share of manufactured exports in GDP is not linear; that is, two countries at similar levels of per capita income will have different ratios of manufacturing exports to GDP depending on a number of other factors. One such factor is natural resource endowment. As already discussed, the second-tier NIEs have taken much longer to move from resource-based products to

labour-intensive manufacturing because of their abundant natural resources. This is likely to be the case for many other developing countries too, including in particular for those LDCs that are rich in natural resources, where priority in export promotion is accorded to diversification into resource-based products.

Another factor influencing export-orientation is population. Experience shows that trade orientation is in general inversely correlated with the size of the country; of two countries with the same per capita income, the country with the larger population can be expected to have smaller trade ratios (i.e. exports per capita or in relation to GDP). As already noted, since the division of labour is limited by the extent of the market, less populous countries need to rely on external markets to ensure an efficient scale of production and benefit from economies of scale. China and India, for example, do not need and will never achieve the same per capita exports or imports as the first-tier NIEs. The degree of export orientation that the latter achieved was attainable (and necessary) because the economies are all relatively small, with a combined population of only 74 million. It is thus not much larger than the population of Guangdong Province of China (around 65 million), and well below that of Indonesia (around 184 million) or the Chang Jian Delta around Shanghai (some 125 million). China alone has a population of 1.2 billion, and developing countries well over 4 billion.

The replication of East Asian industrialization thus implies different degrees of export-orientation in manufactures for different developing countries with different levels of per capita income, industrialization and resource endowment and varying sizes of population.⁴ Poor countries will have a low level of manufactured exports relative to GDP, no matter what kind of trade strategy they follow, but those without adequate natural resources would need to raise their export ratio rapidly in order to lift growth while

those rich in natural resources would take much longer to do so. Major exporters of manufactures outside East Asia (such as Brazil, Mexico and Turkey)⁵ would need to attain a relatively fast expansion of exports of manufactures in order to be able to sustain a growth of GDP similar to that of East Asian countries, but they do not need the kind of export growth that the first-tier NIEs achieved in their early stages of industrialization. Again, countries such as China and India can be expected to have much smaller per capita exports and export/GDP ratios than the first-tier NIEs because of both the size of their populations and their per capita income levels. Although in recent years in these two countries, and in particular China, exports have grown much faster than GDP, the initial momentum cannot be expected to continue for long and the differential can be expected to diminish over the coming years.

The question of replicability is often posed in terms of expansion of exports to the North. The South needs to export to the North primarily in order to purchase capital and intermediate goods and to gain access to technology. While the first-tier NIEs depended almost entirely on the North in this respect, this need no longer be the case for today's NIEs because a number of them in East Asia have already established domestic capital goods industries, as have also some other middle-income countries. Similarly, while the North constituted the single most important market for manufactured consumer goods exports of the first-tier NIEs during the past decades, this is no longer true for the developing countries today. Although the markets in the South are still small compared to the North, they are growing much faster. In other words, there is considerable scope for increased trade among developing countries. This trade is likely to be hierarchical, with more advanced countries, notably the first-tier NIEs, exporting capital-intensive and skill-intensive products to less advanced ones in return for products with a high resource or unskilled labour content. The outcome will be a "flying geese" pattern of the type discussed in chapter I above. While the overall pattern and speed of the formation is greatly influenced by the growth and openness of markets in the North, developing countries can also provide considerable autonomous impetus to each other in the process of export-oriented industrialization.

Finally, while many developing countries would have to rely on exports of resource- or la-

bour-intensive manufactures, some, including the non-East Asian major exporters of manufactures, second-tier NIEs and China, have capabilities to upgrade and move to more diversified products. For such products, market opportunities in the North are certainly much greater than for labour-intensive manufactures. These countries, particularly the large ones, can also move into some capital goods industries at earlier stages of development than were able to the first-tier NIEs. To the extent that the more advanced developing countries can produce the capital goods needed by the less advanced ones, the reliance by the South as a whole on exports to the North will be diminished.

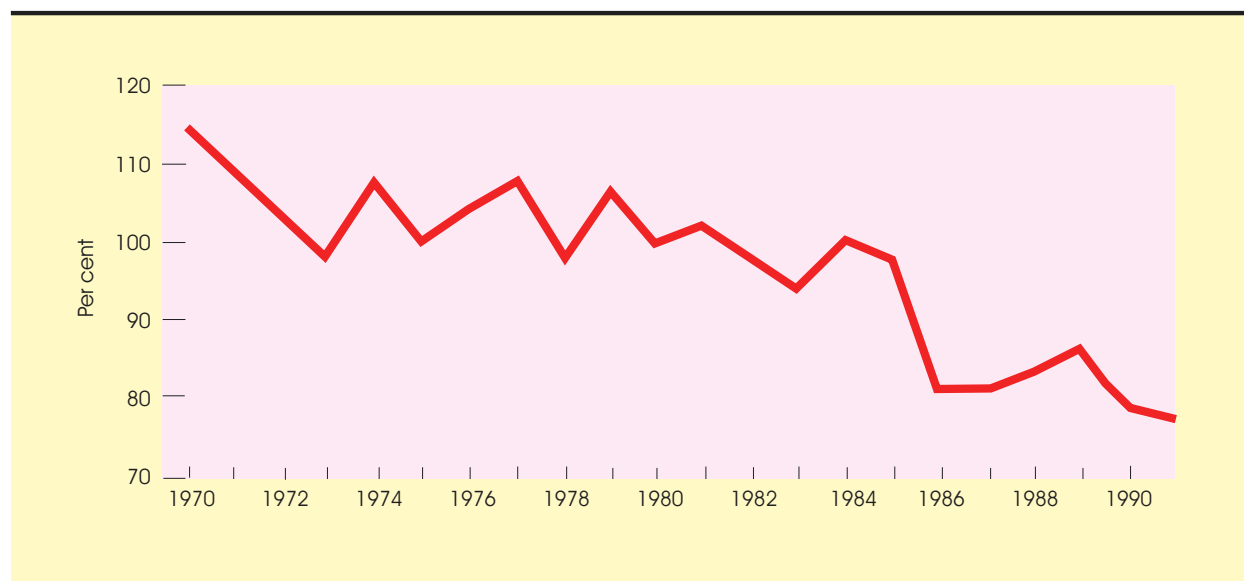
2. *Recent trends in the terms of trade for manufactures*

Since the celebrated works of Prebisch and Singer⁶ it has been frequently argued that the terms of trade between primary products and manufactures are on a downward trend. Developing countries wishing to boost their export earnings should, therefore, diversify away from primary products into manufactures, for which income and price elasticities in the advanced economies are relatively high.

Such a diversification has to a considerable extent taken place, and the composition of exports of developing countries has undergone a rapid transformation since the early 1980s. In 1980 exports of commodities (excluding fuel) from developing to developed countries exceeded those of manufactures. As a result of rapid expansion of manufactured exports, by the early 1990s the latter were three times the value of exports of commodities. While this rapid increase in the share of manufactured exports has been partly due to the increase in the prices of manufactured exports of developing countries relative to commodities, much of it was the result of volume changes.

However, recent empirical work has suggested that this expansion of manufactured exports from developing countries has also been associated with a downward trend in their terms of trade. According to a recent estimate based on a time-series regression of the ratio of unit values of manufactured exports from developing and developed countries, over the period 1970-1987, prices of manufactured exports of developing countries fell by an average of 1.0 per cent per annum relative

RATIO OF DEVELOPING COUNTRIES' EXPORT PRICES OF MANUFACTURES TO DEVELOPED COUNTRIES' EXPORT PRICES OF MACHINERY AND TRANSPORT EQUIPMENT AND SERVICES, 1970-1991



Source: Reproduced from P. Minford, J. Riley and E. Nowell, 'The Elixir of Growth: Trade, Non-traded Goods and Development', *CEPR Discussion Paper*, No. 1165, London, May 1995 (figure 6).

to those of developed countries.⁷ Yet, because the volume of manufactures exported by developing countries rose rapidly, there was an average annual increase of 10 per cent in their income terms of trade.

It has been suggested that this result is biased by the inclusion in the definition of manufactured products used in the estimates (namely, that of the United Nations in its index of unit values of manufactured exports) of non-ferrous metals.⁸ These are not normally considered as manufactures in the analysis of trade, because their value-added component is small and variations in their price mainly reflect the behaviour of prices of metalliferous ores. Indeed, if non-ferrous metals are excluded, there is no deterioration in the manufacturing terms of trade of developing countries over the period in question. However, closer examination reveals that while the two series (with and without non-ferrous metals) behave very differently prior to 1975, their movements are virtually identical thereafter. Thus, from 1975 onwards it makes no difference to the outcome whether or not these metals are included in the calculations.⁹ This conclusion supported by

research based on the use of an alternative export price series for developed countries; namely, export prices of machinery and equipment, and services.¹⁰ This latter measure (see chart 7) indeed indicates a somewhat larger deterioration in the terms of trade of developing countries than the first measure.

These results, however, do not provide an adequate test of the Prebisch-Singer thesis as it applies to manufactures, because they are based on aggregate data for manufactured exports from all developing countries, including both labour- and technology-intensive products, which, according to this thesis, should be subject to different price dynamics.¹¹ A more recent study attempts to provide an additional empirical test of the deterioration thesis by analysing trends in the manufacturing terms of trade of the various developing regions in their trade with developed countries.¹² These estimates are based on EUROSTAT unit value series for 1979-1994 for trade of the European Union with five groups of countries: least developed countries (LDCs), ACP, Latin American and Mediterranean Basin countries and East Asian NIEs (see table 39).

Table 39

**MANUFACTURING TERMS OF TRADE BETWEEN DEVELOPING COUNTRIES
AND THE EUROPEAN UNION, 1979-1994**

(Percentage change per annum)

	All developing countries ^a	of which:				
		LDCs	ACP	Latin America	Mediterran. Basin ^b	East Asia ^c
Unit value of:						
EU imports	2.0	-1.3	-0.1	1.3	2.1	2.9
EU exports	4.2	4.4	4.6	4.9	4.4	4.1
Terms of trade of developing countries^a						
Net barter terms of trade	-2.2	-5.7	-4.7	-3.6	-2.3	-1.2
Income terms of trade	5.5	..	0.4	1.0	4.1	6.8

Source: A. Maizels, T.B. Palaskas and T. Crowe, "The Prebisch-Singer Hypothesis Revisited", in D. Sapsford and J.R. Chen (eds.), *Development Economics and Policy: Essays in Honour of Sir Hans Singer* (London: Macmillan, forthcoming).

a Excluding China.

b Algeria, Cyprus, Egypt, Israel, Jordan, Lebanon, Malta, Morocco, Tunisia, Turkey and former Yugoslavia.

c Including also Brunei Darussalam and Macao.

According to this study, while the manufacturing net barter terms of trade (NBTT) of developing countries as a whole with EU declined at an average rate of 2.2 per cent per annum from 1979 to 1994, the increase in export volume was more than enough to offset the price decline, so that the income terms of trade rose strongly. However, there are significant differences among developing countries. The decline in NBTT was largest for LDCs, followed by ACP, Latin American and Mediterranean countries, while it was significantly smaller for the East Asian NIEs. Income terms of trade rose for all groups of countries for which data are available. However, the increase was considerably smaller for the ACP and Latin American countries, where much of the gains from growth of export volumes were wiped out by the deterioration in NBTT. By contrast, in the Mediterranean countries, and even much more in East Asian NIEs, where growth of export volumes was higher and NBTT deterioration lower, the increases in income terms of trade were much greater.

As can be seen from table 39, the main reason for the different rates of decline in NBTT among

these groups of countries was differences in the unit values of their exports to EU rather than in the unit values of their imports. The authors explain these differences in terms of the technology intensity of exports of manufactures:

... while for the NICs and ASEAN countries there was a deterioration but at a modest rate of little more than 1 per cent per annum. This is in sharp contrast with relatively high rates of deterioration of the NBTT of the least developed and ACP countries, the two groups with almost certainly the lowest proportion of technology-intensive manufactures and the greatest proportion of unskilled or semi-skilled labour-intensive exports. The Latin American region and the countries of the Mediterranean Basin are intermediate between these two extremes as regards the rate of deterioration in their NBTT and very probably also as regards their general level of scientific and technological development.

This conclusion is largely in accordance with the discussions in the previous chapter. An addi-

tional reason for the relatively sharp decline in the terms of trade of LDCs, ACP and Latin American countries is the debt crisis. For instance, as discussed in *TDR 1995*, export growth in most of Latin America during the 1980s was driven by the distress caused by the debt crisis. Sharp drops in real wages in manufacturing that were associated with rising exports most probably contributed to declines in the terms of trade by allowing export prices of these products to be reduced without affecting profitability.¹³

Within East Asia it could also be expected that there would be considerable variation between the first- and second-tier NIEs with respect to the movements in their manufacturing terms of trade with the developed countries since the skill intensity of their exports differs considerably. Information in this regard by country is limited. However, according to one study, while for the Republic of Korea the manufacturing terms of trade moved favourably during the 1980s, the movement was "slightly adverse" for Indonesia.¹⁴

Thus, there is evidence that the relative price of manufactured exports from developing countries has fallen during the past two decades alongside the rapid expansion of their volume. However, there appears to be much variation by product category with significant declines for resource- and labour-intensive exports, but little evidence of a downward trend for more skill- and technology-intensive goods.

To what extent the behaviour of the manufacturing terms of trade of developing countries reflects global productivity and price trends is not easy to determine. As discussed in greater detail in *TDR 1995*, although the findings of a number of studies suggested that world prices of skill-intensive goods have fallen over the past decade or so relative to those of labour-intensive goods, this result appears to be quite sensitive to the products chosen as well as the way in which the skill content of goods is measured. On the other hand, while the evidence suggested a faster productivity growth for skill-intensive manufacturing, it was concluded that the findings for both Europe and the United States that prices of both high-skill and low-skill manufactures had fallen relative to prices of those embodying a medium level of skills could not rule out the predicted price effect of import competition from the South.¹⁵ This conclusion is consistent with the independent evidence on manufacturing terms of trade of developing countries examined above.

3. Labour-intensive exports and fallacy of composition

The above findings suggest that either income and price elasticities for the type of manufactures which most developing countries currently export are low or that demand for these exports is constrained by protection in the advanced economies. They also raise the possibility that the prices of labour-intensive manufactured exports could come under significant pressure if supply increases much faster as a result of a widespread attempt to replicate the successful experience of first-tier NIEs.

The question of fallacy of composition with respect to labour-intensive manufactures can be highlighted by examining the case of clothing, which has been the major labour-intensive export item from East Asia. Despite their rapid growth, imports of clothing from developing countries still account for only one third of apparent consumption (gross production plus net imports) of clothing in the North (see table 40). Most clothing expenditure is thus still on domestically produced goods. Under the Multi-Fibre Arrangement (MFA), to be phased out by January 2005, domestic clothing producers in most Northern economies enjoy protection against imports from developing countries. As a result, the output of clothing in some important instances has remained roughly constant over the past 20 years (chart 8), although employment has fallen everywhere because of rising labour productivity. Whilst protection has served to stabilize or contain the fall in domestic output, demand for clothing in these countries has been rising, and a widening gap has emerged between output and expenditure, which has been filled by imports from developing countries.

What would the situation have been like in the absence of protection? Some indication is provided by the example of Sweden, which has virtually eliminated protection for the clothing industry. Over the past 30 years, the output of clothing has dropped by 90 per cent in Sweden. This suggests that under free trade, the production of clothing and similar labour-intensive goods would fall dramatically in most advanced countries, although perhaps not as much as in Sweden, where an egalitarian wages policy has meant very high labour costs for the producers of such goods.

The Agreement on Textiles and Clothing concluded in the Uruguay Round provides for the

Table 40

**PROSPECTS FOR CLOTHING EXPORTS
FROM THE SOUTH TO THE NORTH^a**

(Billions of dollars)

	1993 (actual)	Post-MFA ^b
Apparent consumption in the North	258.0	355.2
Production in the North	160.3	64.1
Northern imports from developing countries ^c	88.8	264.6
First-tier NIEs	22.7	..
ASEAN-4	11.5	..
China	24.8	..
India	3.4	..
Other	26.4	..
Other external imports ^d	8.9	26.5

Source: UNCTAD secretariat calculations based on UNIDO data and United Nations *Commodity Trade Statistics* tapes.

a Canada, EU, Japan and United States only.

b Projections for 2006 (in constant 1993 prices), based on the assumptions described in the text.

c Derived from data (f.o.b.) of the exporting countries, including re-exports via Hong Kong.

d Mainly from the transition economies.

phasing out of the MFA, leading to the “integration” of this sector into GATT at the end of a 10-year transition period, when the same rules will apply to trade in textiles and clothing as to trade in other goods. The figures in table 40 show that there may be considerable scope for developing countries to increase their exports of clothing to the North if the Uruguay Round obligations are implemented as envisaged. In the table it is assumed that consumption of domestically produced clothing in the North will fall by 60 per cent by the end of the transition period. It is also assumed that expenditure in the North on clothing will grow by 3.25 per cent per annum during this period.¹⁶ Thus, developing country exporters are assumed to enjoy the twin gain of increased access to expanding markets in the North and reduced output by their northern rivals. The result of these assumptions is a 200 per cent increase in their

clothing exports to the North. Assuming that the MFA is phased out steadily during the 10-year period, this gives an average of about 12 per cent growth per annum in the clothing exports for all developing countries taken together. These figures are obviously very crude and their purpose is purely illustrative. Even so, they do indicate the orders of magnitude involved and the potential for developing countries to increase their exports of clothing provided that they are no longer faced by protectionism. Should growth in the North be faster, these opportunities would certainly be greater.

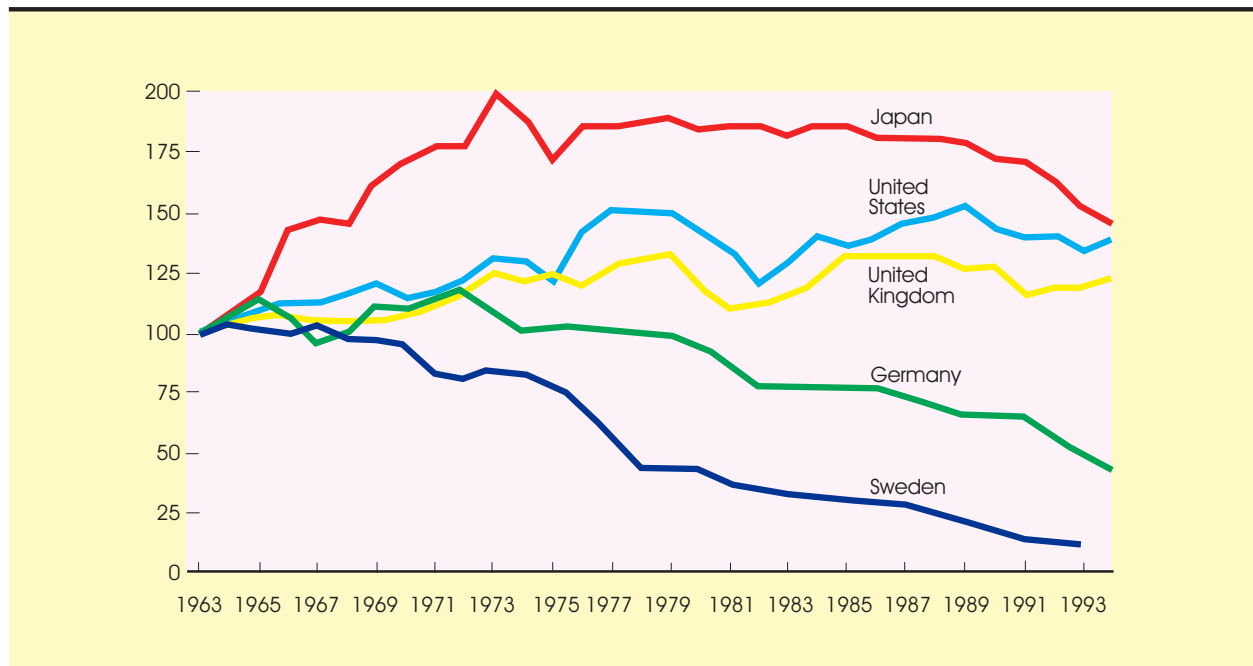
An average growth of 12 per cent per annum in clothing exports is lower certainly than that achieved by the first-tier NIEs in their earlier stages of their labour-intensive manufacturing export drive. However, as discussed above, not all countries have reached the point of being able to launch a massive export expansion in labour-intensive manufactures; nor do countries at relatively higher levels of industrialization need to rely on such exports to the same degree. Similarly, the first-tier NIEs have already begun moving out of such labour-intensive manufacturing, which should create room for other developing countries in the northern markets as well as in their own domestic markets.

There can be little doubt that some large countries, such as China and India, are among those that are likely to constitute the next generation of (third-tier) NIEs with considerable advantage in labour-intensive manufacturing. Exports of these countries to the North are relatively small compared to the potential market there.¹⁷ Thus, even if these countries could increase their clothing exports by 20 per cent per annum, their combined exports would reach only \$175 billion at the end of 10 years, about one-half the estimated market size of the North. This would still leave considerable room for other developing countries to increase their clothing exports to the North (and to the first-tier NIEs) without flooding the markets.

There is thus considerable scope for a new generation of NIEs to expand their exports of clothing to northern markets over the next decade or so without facing a supply-induced terms-of-trade deterioration, provided that protectionist barriers in the North are dismantled. Opening of the northern markets can also be expected to slow or halt the downward trend in the manufacturing terms of trade of countries exporting mainly labour-inten-

PRODUCTION OF CLOTHING IN SELECTED INDUSTRIAL COUNTRIES, 1960-1994

(Index numbers, 1963 = 100)



Source: UNIDO data base.

sive products. However, such high export growth rates cannot be maintained simultaneously by a large number of countries. Nor could they be maintained indefinitely; for once the market protected by MFA is fully penetrated by southern producers, it will no longer be possible for the South to increase exports faster than the rate of growth of demand in the North (i.e. around 3 per cent per annum).

The above discussion implies that if southern producers were enabled to enter northern markets in products where there is still substantial local production, they would not necessarily encounter the fallacy of composition problem. Under these conditions exports from the South would be highly substitutable for the northern products, and no matter how much the South has already exported, the price elasticity of demand in the North for the exports of developing countries as a whole would remain high. Thus, no matter how much the South exported to the North, only a modest reduction in prices would be required to achieve a further substantial increase in exports.¹⁸

However, when southern exports of manufactures expand considerably in products in which there is no significant production in the North and for which demand there is growing slowly due to slow income growth and/or a low income elasticity, the fallacy of composition would be a much more likely result. This can be illustrated with the help of the North-South trade model of UNCTAD cited in note 18. The model is used to simulate the effects of increased exports of labour-intensive manufactures by the South on the terms of trade and incomes. It is assumed that North and South are completely specialized in the skill- and labour-intensive manufactures respectively, so that southern exporters do not compete with the northern producers, that wages are fully flexible in the North and that full employment always prevails. The simulations are carried out by increasing the size (population and employment) of the South by 20 per cent compared to the baseline while keeping the size of the North unchanged. This is equivalent to increasing the supply of labour-intensive exports faster than demand. The result is to lower their prices relative to the prices of north-

Table 41

**SIMULATION OF TRADE AND INCOME
EFFECTS OF EXPANSION OF LABOUR-
INTENSIVE EXPORTS BY THE SOUTH**

*(Percentage change due to a 20 per cent
increase in the size of the South^a)*

NORTH

Real wages (unskilled)	8.1
Real wages (skilled)	7.2
Manufacturing employment	-6.9
Export volume (good 1)	-31.5
Per capita income	4.2

SOUTH

Terms of trade	-63.2
Real wages (unskilled)	-2.9
Real wages (skilled)	-8.9
Export volume (good 2)	86.7
Per capita income	-7.8

Source: Calculations by the UNCTAD secretariat. For the simulation model used see *TDR 1995*, Annex I to Part Three.

a i.e. an increase of 20 per cent in population and employment.

ern manufactures, with the extent of the decline depending on their substitutability with skill-intensive manufactures.

The results are summarized in table 41. Export volumes from the South increase by more than 80 per cent, but the terms of trade for their manufactures drop to less than one half of their previous level. Thus, real export earnings of the South (i.e. in terms of the imports they can procure from the North) fall considerably. Similarly, aggregate national income rises much less than population, and hence per capita income declines. In the North real wages of both unskilled and skilled workers are higher when the South is larger. However, since the model assumes balanced trade between the South and the North, and since the purchasing power of exports of the South declines, the volume of northern exports to the South also declines. Consequently, manufacturing employment as a proportion of the total labour force (and employment) falls in the North.

There can be little doubt that results obtained from such simulations are highly sensitive to the assumptions made with respect to consumption substitution elasticities; with a higher elasticity of substitution, the terms of trade would certainly fall less, and would probably be more than compensated by volume increases. However, these results show that any widespread attempt to increase exports of labour-intensive, low-elasticity manufactures to northern markets may lead to a collapse in their terms of trade with the North. The danger of immiserisation is widely recognized in the case of primary products, but it is no less for labour-intensive manufactures.

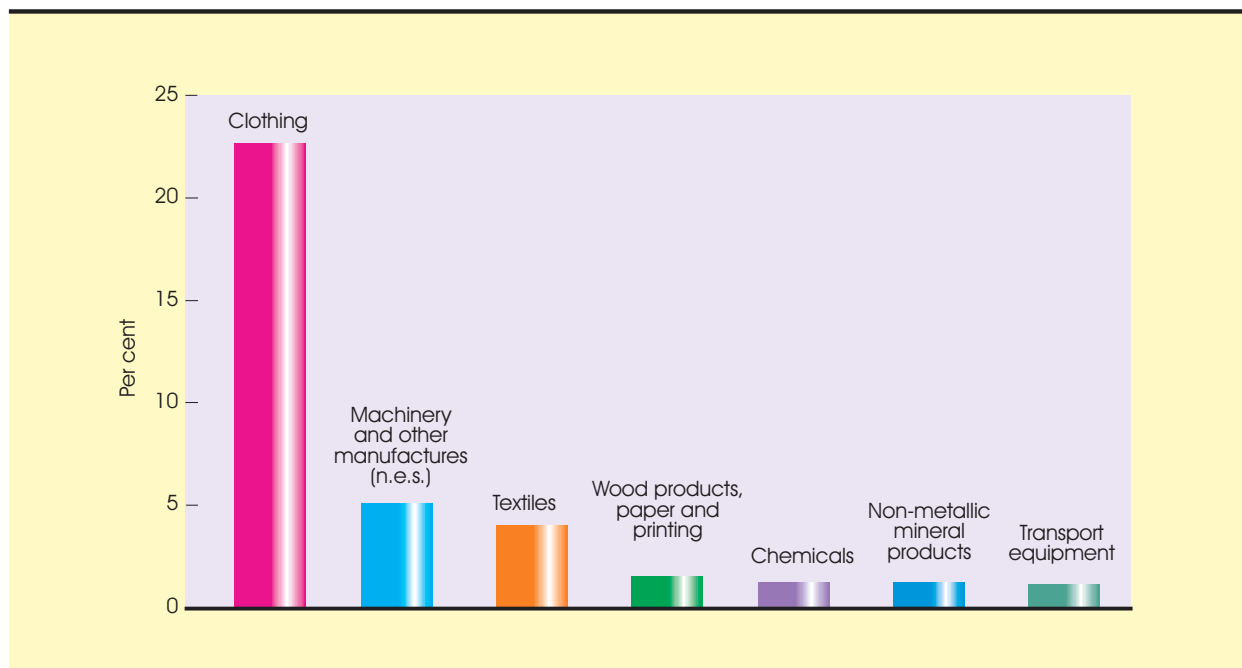
4. Diversification and market penetration

While fallacy of composition and immiserizing growth are potential dangers for the exporters of labour-intensive manufactures, they are by no means inevitable since there is considerable scope to move to other manufactured exports. A number of manufactures exported by developing countries to the North are produced in much larger quantities in the latter countries; for example, their imports from the South of machinery, wood products, paper and printing materials, chemicals and transport equipment account for only a very small proportion of apparent consumption (see chart 9), even though for some of these products southern exports have been growing very fast, particularly from the first-tier NIEs. Consequently, if a number of relatively large and more advanced developing countries could upgrade and diversify their exports into these products through appropriate industrial policies, the danger could be avoided of an unfavourable turn of the terms of trade through a simultaneous export expansion in labour-intensive manufactures.

Even if demand for manufactures grows only slowly in the North because of slow income growth, southern producers could still expand such skill-intensive exports by replacing northern producers. However, this could entail serious dislocations in the North, and a smooth adjustment would depend on the overall macroeconomic conditions, including their growth and unemployment rates. If adjustment in the North is rendered difficult by sluggish growth and high unemployment, protectionist pressures could mount.

In sum, replicability of the East Asian experience in this sense depends very much on the

IMPORTS OF MANUFACTURES, BY PRODUCT GROUP, FROM DEVELOPING COUNTRIES AS A PERCENTAGE OF APPARENT CONSUMPTION IN THE NORTH, 1990-1991



Source: UNCTAD, *Handbook of International Trade and Development Statistics 1994*.

success of industrial policies in the South in upgrading and diversifying, and on the success of macroeconomic policies in the North in accelerating growth and reducing unemployment.

In table 42 the consequences are explored for the North of a simultaneous expansion of exports of manufactures by developing countries on the basis of alternative scenarios. In the low growth scenarios, northern demand for manufactures is assumed to grow by 2.5 per cent per annum in real terms over the next decade - i.e. in line with the trend growth rate of the major industrial countries. In the high growth scenario, demand in the North is assumed to grow by 4 per cent per annum. In projecting market penetration by developing countries in the North within the next 10 years on the basis of two alternative scenarios, an estimate is first made for import penetration for 1996.

In both scenarios the growth of manufacturing exports of the first-tier NIEs is assumed to keep pace with the increase in demand in the North. This is a reasonable assumption, given that their exports of manufactures to the North have increased by around 4 per cent per annum since the beginning

of the decade. Certainly, this is a considerably lower rate than that achieved during the 1970s and 1980s, but it is consistent with their tendency to supply the northern markets increasingly through FDI, and to expand manufacturing exports to developing countries. In scenario I, it is assumed that ASEAN-4 and China will also maintain the recent growth rates of their manufacturing exports to the North during the next 10 years, at 20 per cent per annum. Other developing countries, on the other hand, including large countries such as India, are assumed to double their export growth rates to the North immediately, maintaining them at 20 per cent per annum. Thus, scenario I assumes that, while the recent pace of manufacturing exports of the East Asian developing countries (first-tier NIEs, ASEAN-4 and China) to the North will continue, other developing countries will significantly increase their rate of export expansion.¹⁹

For a number of reasons the increases in market penetration projected in scenario I can be considered to be much higher than is implied by the replication of the East Asian export performance. First, as noted above, many developing countries have not yet reached the stage of indus-

Table 42

**IMPORT PENETRATION BY DEVELOPING COUNTRIES OF THE NORTHERN^a MARKET
FOR MANUFACTURES SINCE 1990 AND PROJECTIONS FOR 2006**

(Percentage)^b

Year	<i>Northern imports of manufactures^c from</i>				
	<i>All developing countries</i>	of which:			
		<i>First-tier NIEs</i>	<i>ASEAN-4</i>	<i>China</i>	<i>Other developing countries</i>
1990-1996					
1990	3.9	1.8	0.4	0.5	1.2
1991	4.1	1.8	0.5	0.6	1.2
1992	4.5	1.8	0.6	0.8	1.3
1993	5.1	1.8	0.8	1.0	1.5
1996 ^d	6.6	1.9	1.2	1.7	1.8
Projections for 2006					
<i>Low growth in the North</i>					
Scenario I	20.7	1.9	4.8	6.8	7.2
Scenario II	14.1	1.9	3.1	4.4	4.7
<i>High growth in the North</i>					
Scenario I	18.1	1.9	4.1	5.9	6.2
Scenario II	12.5	1.9	2.7	3.8	4.1

Source: See table 40.

a Canada, EU, Japan and United States only.

b Imports of manufactures (SITC 5-8, less 67 and 68) as a percentage of apparent consumption (gross output plus net imports).

c Derived from data (f.o.b.) of the exporting countries, including re-exports via Hong Kong.

d Forecast.

trialization needed to launch a massive expansion of manufactured exports. Second, this projection does not take into account the recent trend in the growth of South-South trade relative to that between North and South. Finally, as discussed above, large countries such as China and India do not need and cannot be expected to maintain such high export growth rates for a long period.²⁰ Scenario II takes these considerations into account and assumes a growth rate of 15 per cent per annum for the export of manufactures from ASEAN-4, China and other developing countries to the North over the next 10 years.

The results in both scenarios have some common features that are independent of how fast the

North grows. In all cases, at the end of the 10 years import penetration in the North by ASEAN-4 will exceed that of the first-tier NIEs, but their per capita exports will still be smaller; the population of ASEAN-4 is about 4.5 times that of the first-tier NIEs, while their manufactured exports to the North are higher by 1.5-2.5 times, depending on the scenario. China will catch up with ASEAN-4 in import penetration in the North, but again its per capita exports will be considerably lower. Similarly, although market penetration by the remaining developing countries will rise at the same rate as for ASEAN-4 and China, average per capita exports for those countries will be considerably less than, and about one-half of, respectively, that of those two regions.

To achieve the average degree of penetration of northern markets envisaged in these scenarios, the South would need to make massive inroads into many sectors at present dominated by northern producers and simultaneously to replace northern producers in sectors such as clothing and household electrical goods, where they still retain a significant presence. However, not all developing countries can be expected to perform equally well in all these areas. For a number of countries, particularly the second-tier NIEs and China, a rapid shift to technology- and skill-intensive products would be necessary to maintain a relatively high rate of growth of manufactured exports. In countries at earlier stages of industrialization, much of the expansion can be expected to take place in traditional labour-intensive manufacturing, replacing exports by more advanced developing countries. In both cases success will continue to depend, as in the East Asian NIEs, on government policy in animating the investment-export nexus.

What does this imply for the North? Taking the low-growth scenario II, the rate of market penetration roughly doubles from an estimated 6.6 per cent in 1996. Such increases are not unprecedented, although in the past they were from relatively low levels (generally under 1 per cent). For instance, import penetration by the developing countries tripled from 1970 to 1980, and then doubled over the following 10 years. Italian and Japanese penetration in the (then) EEC market of six and in the United States showed similar increases during the 1960s and 1970s.²¹ Total southern exports, 10 years from now, amounting to 14 per cent of apparent consumption of manufactures in the North, will correspond to less than 6 per cent of northern GDP. In terms of employment, they affect about 3.5 per cent of the total labour force. Moreover, the counterpart to massive imports of manufactured goods from the South would be the export of other types of manufactured goods, particularly capital goods, together with modern services, thereby creating new jobs.

However, such a development would still have major implications for the economic structure of the North, necessitating considerable restructuring of industries and redeployment of labour. Jobs created by increased exports to the South are not always in the same sectors as those lost as a result of increased imports; nor are they necessarily of the same quality. Shortages may occur for skilled labour while the overall demand for unskilled workers will decline as a result of labour-intensive

imports from the South. The feasibility of such a structural adjustment in the North would depend to a large extent on macroeconomic circumstances. As discussed in *TDR 1995*, in an expansionary environment, with high investment and rising output in the North, there would be plenty of new jobs available to replace those destroyed by increased southern penetration in certain sectors, and the structural changes involved could be absorbed fairly smoothly. As may be seen from a comparison of the low- and high-growth scenarios in table 4, faster growth in the North would also imply lower import penetration for any given rate of export expansion by the South. These were indeed the conditions prevailing in the 1960s, when rapid penetration by Japan and Italy in the European and United States markets was not associated with serious labour market problems and protectionist pressures.

Conversely, with the depressed demand conditions and growing labour market problems which have characterized the North over the past 20 years, the scale of import penetration envisaged here could cause serious problems of adjustment, and might trigger an intensification of protectionist pressures. As discussed in greater detail in *TDR 1995*, unless the twin problems of high unemployment and low wages in the North are tackled, additional hurdles to maintaining present trends towards more open markets could emerge. Thus, whether or not a large number of developing countries can simultaneously replicate the successful export-oriented industrialization experience of the first-tier NIEs will depend very much on the evolution of the global trading system, and particularly on maintaining open markets in the North.

There can be little doubt that if the size of and access to northern markets do not increase rapidly, prospects for developing countries to achieve rapid export-oriented industrialization will be limited. However, with the rapid industrialization already achieved by a number of East Asian countries and other major exporters of manufactures, and the associated increase in South-South trade, the dependence of growth in the South on the North has weakened considerably. Moreover, should the South as a whole find it difficult to raise imports from the North because of the balance-of-payments constraint, it could cut imports unrelated to capital accumulation and growth. The more consumer goods the South imports from the North, the more goods it needs to export, and if that is not possible because of economic conditions and trade policies in the North, the higher imports for consumption

can only be at the expense of imports for investment. However, unlike most capital goods, most of the consumer goods produced in the North are also produced in the South. Hence it is possible for the South to maintain rising imports of capital

goods from the North by increasing its output of mutual trade in consumer goods. In other words, greater South-South cooperation in trade could help overcome the problems associated with inadequate growth of and access to markets in the North.

C. Export promotion after the Uruguay Round

The conclusion of the Uruguay Round and the establishment of the World Trade Organization (WTO) have cast a new light over the experience of East Asia. In many respects the international disciplines consolidate the export-oriented approach adopted by East Asia. But, at the same time, there is concern that the selective promotion of exports pursued by those countries will no longer be a permissible option.

Certainly, the new trading regime under the WTO has reduced the scope for general forms of tariff protection, many trade-related subsidies and performance standards and lax enforcement of intellectual property rights. However, much of the current discussion tends to highlight extremes: on the one hand, it emphasizes the constraints of WTO obligations, while on the other it tends to exaggerate their impact in narrowing the scope for policy options. Policy-makers need to make an objective analysis of the options which remain open to other developing countries for emulating the experience of the East Asian economies.

The Uruguay Round has clearly opened up new export opportunities for developing countries and improved their security of market access, thereby improving on the conditions faced by many East Asian NIEs during their early stages of industrialization. Although the tariff reductions made in some low-skill industries, such as textiles and clothing, that are critical to developing countries were relatively small, the elimination of non-tariff barriers and voluntary export restraints provides some offset. However, the danger of new forms of protectionism in these industries cannot be ruled out. Moreover, while the restrictions built into the various Agreements shorten the time available to

policy-makers to enhance the organizational and technological assets of their domestic firms, the disciplines they introduce will help to make for a more purposive and focused pattern of industrial policy in the time allowed, encourage the better provision of traditional public goods needed to compete internationally as well as widen the scope of policies to include measures which can strengthen domestic savings and investment.

Certainly the kind of lengthy protection - which for the automobile industry in the Republic of Korea, for example, lasted three decades - used to promote industrial upgrading in the first-tier NIEs will no longer be possible. However, with respect to infant industry protection, it should be noted that none of the East Asian NIEs ever had resort to the "infant industry" provisions of section C of GATT article XVIII. Section B of that article allows developing countries to apply quantitative restrictions for balance-of-payments reasons. Although the understanding relating to this article strongly discourages resort to quantitative measures and provides for stricter multilateral surveillance, it remains a possibility for developing countries. Moreover, to the extent that tariff rates remain unbound or are bound at levels above currently applied rates, they can be increased to protect "infant industries".

The Agreement on Subsidies and Countervailing Measures defines "subsidies" for the first time, tightens the disciplines on subsidies, and extends them to all WTO members. It also contains the most important provisions on differential and more favourable treatment, some of which are not subject to any precise limits. For example, the least developed countries, together

with 20 other countries with GDP per capita of less than \$1,000, are exempt from the prohibition of export subsidies so long as they retain this status, and are also exempt from thresholds based on shares of world markets for products benefiting from export subsidies. Although specific subsidies (i.e. those limited to certain enterprises and not granted on the basis of objective criteria) are “actionable”, remedies may be applied against actionable subsidies of developing countries only if injury to the domestic industry of another member, serious prejudice to its interests or nullification of concessions can be demonstrated. In addition, there are a set of non-actionable subsidies, including those which are intended to promote basic research, agriculture, and regional development. The last of these played a particularly important role in the first-tier NIEs in supporting efforts at technological development and industrial diversification, including through science parks and special industrial estates. Similar efforts to link infrastructure investment to technological upgrading will remain possible under the current Agreement.

Strictly speaking, the TRIMs Agreement did not modify GATT obligations but simply identified with greater clarity those investment measures which were incompatible with GATT articles. These include local content requirements (which can still be applied by countries invoking article XVIII.B), but leave a wide range of measures untouched. For example, export performance requirements are still permitted (but if they involve payments to exporters, they fall under the disciplines on export subsidies). However, while Governments in East Asia did exact formal agreements from both domestic and foreign firms in these areas, it should be noted that many of the arrangements were of a more informal nature and were mediated through such practices as “administrative guidance” which can act as a powerful constraint over business behaviour. These areas of institution building and reform are critical to strengthening development prospects in many developing countries and to a large extent lie outside WTO jurisdiction.

The General Agreement on Trade in Services involves binding commitments on market access and national treatment only when these have been specifically negotiated on a sectoral and sub-sectoral basis and included in the schedules of commitments. Most of these commitments relate to investment (i.e. “commercial presence”), and market access for foreign service suppliers can be

made conditional on access to networks and technology. Perhaps the most dramatic extension of the multilateral trading system was through the TRIPs Agreement, which establishes the basic intellectual property norms of WIPO as multilateral trade obligations. Certain key policy tools, such as compulsory licensing, are still permitted, but are confined to exceptional cases. However, the real impact of the TRIPs Agreement’s will only become evident with the experience of implementation.

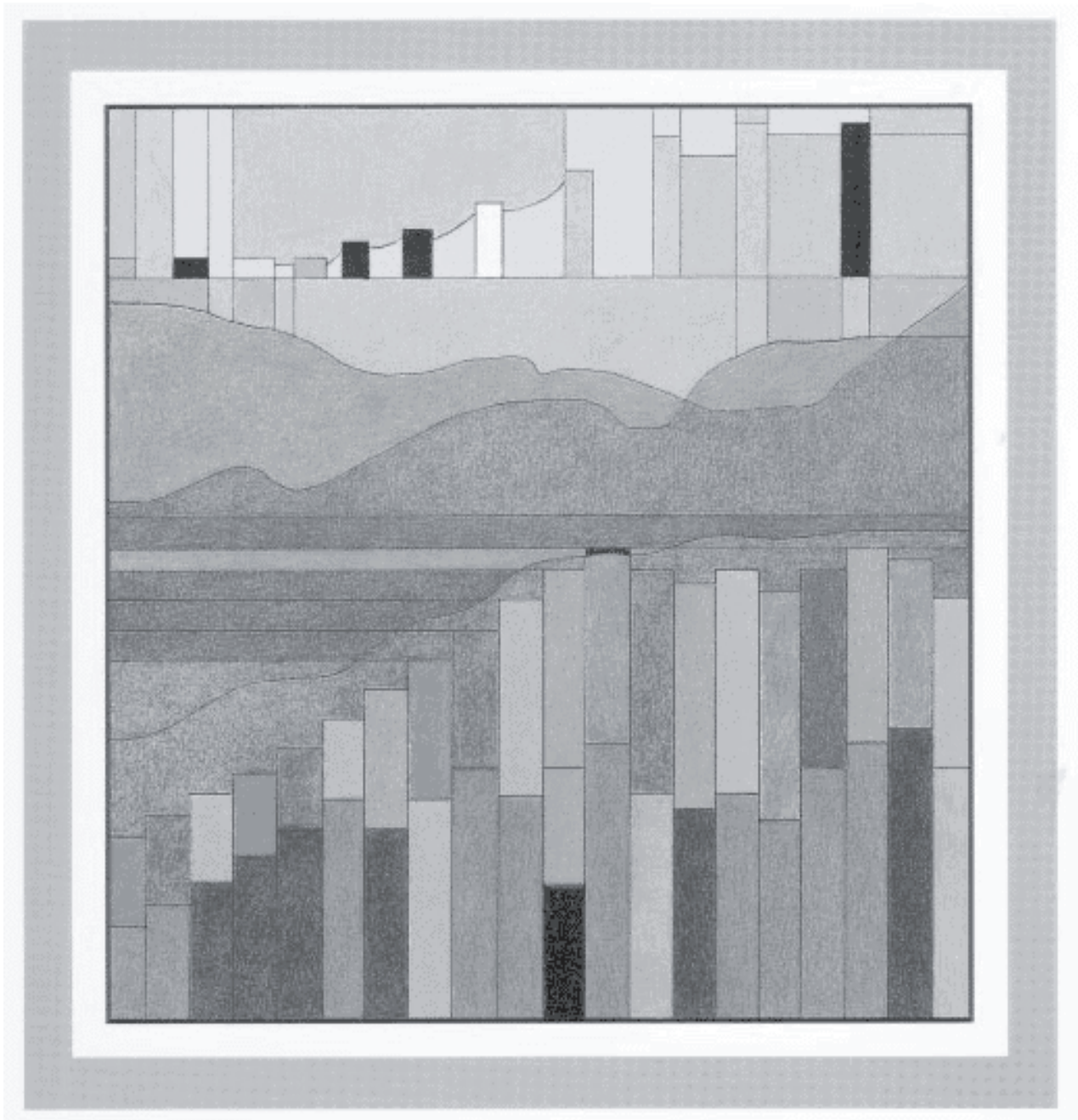
In sum, while the WTO multilateral Agreements have reduced the scope of policy options, policy measures comparable to those employed by the East Asian NIEs can still be applied, particularly by the least developed countries. It is also worth noting that in two key sectors, agriculture and textiles, there is still room for selective government intervention by developing countries. Moreover, many of the policies to establish a dynamic profit-investment nexus will not be affected and might be brought into sharper focus. Given that these measures have a considerable influence on exports by promoting technological upgrading, resort to such measures will become increasingly important for developing countries. However, it has to be recognized that many of the important challenges, in such areas as FDI and the transfer of technology, lie ahead.

Lastly and importantly, the WTO Agreement may facilitate efforts by developing countries to strengthen trade and FDI among themselves. Regional integration has been of growing importance in East Asia, in particular through the growing trade and FDI links between the first- and second-tier NIEs. As discussed in the previous chapter, this has not been the outcome of unregulated market forces but very much the outcome of the interaction of industrial policies. More recently, growth triangles in South-East Asia have widened the search for economies of proximity and agglomeration, and more formal regional ties through ASEAN are beginning to receive greater attention. Whether similar arrangements elsewhere would represent obstacles to global integration appears to be a less important question than whether they could stimulate the kind of regional growth pattern that was established in East Asia. In this context, the fact that regional trade and FDI flows have led to closer integration among developing countries does suggest that the kinds of policies that encouraged these links need to be carefully considered by other developing countries as a possible means of intensifying South-South cooperation. ■

Notes

- 1 This argument was pioneered by W. Cline, "Can the East Asian Model of Development be Generalized?", *World Development*, Vol. 10, No. 2, Feb. 1982. See also R. Faini, F. Clavijo and A. Senhadji-Semlabl, "The Fallacy of Composition Argument: Does Demand Matter for LDC Manufactured Exports?", *CEPR Discussion Paper* No. 499, London, December 1990.
- 2 Jagdish Bhagwati, "Immiserizing Growth: A Geometrical Note", *The Review of Economic Studies*, Vol. XXV(3), June 1958.
- 3 The terms "developed market-economy countries" and "North" are used interchangeably in this chapter. It should be noted that the countries composed by this group (see the Explanatory Notes) include certain countries that are industrially less advanced than some of the East Asian NIEs.
- 4 It is not easy to determine norms for the degree of export orientation needed at each level of income and population to replicate the East Asian export performance. An attempt to do so has been made through a cross-country regression of export/GDP ratios on population and per capita income, but problems of estimation are involved on account of large differences of size among countries. For a similar attempt and the problems involved, see also Cline, *op. cit.*
- 5 Developing countries that are major exporters of manufactures comprise: Brazil, Hong Kong, Malaysia, Mexico, Republic of Korea, Singapore, Taiwan Province of China, Thailand, Turkey and the former constituent republics of Yugoslavia.
- 6 R. Prebisch, *The Economic Development of Latin America and its Principal Problems* (E/CN.12/89/Rev.1.), United Nations publication, E.1950.II.G.2, New York, 1950; H.W. Singer, 'The Distribution of Gains Between Investing and Borrowing Countries'; *The American Economic Review*, Vol. 40, No. 2, May 1950.
- 7 P. Sarkar and H. W. Singer, "Manufactured Exports of Developing Countries and their Terms of Trade since 1965", *World Development*, Vol. 19, No. 4, April 1991.
- 8 P. Athukorala, "Manufactured Exports from Developing Countries and their Terms of Trade: A Re-examination of the Sarkar-Singer Results", *Ibid.*, Vol. 21, No. 10, October 1993.
- 9 On the basis of the United Nations index the regression analysis reveals that the relative price of developing country manufactured exports fell by 0.48 per cent a year during 1975-1993. If non-ferrous metals are excluded, the decline is 0.46 per cent. This is partly because the relative price of non-ferrous metals varied less after 1975, and partly because their relative importance in total manufactured exports from developing countries declined. Whilst in 1970 non-ferrous metals accounted for one quarter of such exports, their share had fallen to 12 per cent by 1975 and is now around 4 per cent. Consequently trends based on regression analysis are dominated by the effects of an unusually large fall in the relative price of non-ferrous metals in the early 1970s, when these metals were of great importance in developing country exports.
- 10 See P. Minford, J. Riley and E. Nowell, 'The Elixir of Growth: Trade, Non-traded Goods and Development', *CEPR Discussion Paper* No.1165, London, May 1995.
- 11 H. Singer, "The Distribution of Gains Revisited", in A. Cairncross and M. Puri (eds.), *The Strategy of International Development* (MacMillan, 1975).
- 12 Estimates of A. Maizels, T.B. Palaskas and T. Crowe, "The Prebisch-Singer Hypothesis Revisited", in D. Sapsford and J.R. Chen (eds.), *Development Economics and Policy: Essays in Honour of Sir Hans Singer* (London: Macmillan, forthcoming).
- 13 See *TDR 1995*, table 34.
- 14 H.A.C. Prasad, "Bilateral Terms of Trade of Selected Countries from the South with the North and the South", *UNCTAD Discussion Paper*, No. 110, January 1996, pp. 25 and 33. See also S. Sen, "Growth Centres in South-East Asia in the Era of Globalization", *UNCTAD Discussion Paper*, No. 117, July 1996, for a discussion of the terms of trade of Indonesia and Malaysia.
- 15 See *TDR 1995*, Part Three, chap. III, introductory paragraph to sect. C.
- 16 This assumption is in conformity with the income elasticity of demand for these goods in the G-7 countries (estimated at about 1.3 for the G-7 countries for the period 1981-1992) and their trend growth rate of 2.5 per cent. It should be noted that for lack of data, the initial year of the calculations in table 40 does not coincide with the date of entry into force of the Uruguay Round Agreements. Since the purpose is to illustrate rather than to project, no adjustment has been made to account for this difference.
- 17 The figure in table 40 for exports from China to the North of \$24.8 billion is based on imports (c.i.f.) from China as reported by the countries concerned. It is greater than the figure for exports reported by

- China because it includes goods exported to and reexported from Hong Kong.
- 18 For a model built on such assumptions see W. Martin, "The Fallacy of Composition and Developing Country Exports of Manufactures", *World Economy*, Vol. 16, 1993. Similar results were obtained from the simulations of a North-South trade model in *TDR 1995* which showed that the opening up of trade between the South (exporting labour-intensive goods) and the North (exporting skill-intensive goods) resulted in considerable gains for the South as well as the North; see *TDR 1995*, annex I to Part Three. For a more detailed explanation of the model used, see R. Rowthorn, "A simulation model of North-South trade", *UNCTAD Review*
- 1995 (United Nations publication, Sales No. E.95.II.D.23).
- 19 These assumed rates of expansion are in terms of current values. In calculating the increases in market penetration in table 42 the real growth rates of demand for manufactures have accordingly been adjusted for price increases, assumed to be 2 per cent per annum, in line with the recent behaviour of the United States consumer price index (excluding services).
- 20 In China, for instance, exports have recently grown at more than double the planned GDP growth rate of 8 per cent for the next five years (see Part One, chap. I).
- 21 *TDR 1995*, tables 30 and 32.



MACROECONOMIC MANAGEMENT, FINANCIAL GOVERNANCE, AND DEVELOPMENT: SELECTED POLICY ISSUES

A. Introduction

Amongst the topics of the agreed annotations to the provisional agenda for UNCTAD IX was the consideration of national and international policies needed to enable full advantage to be taken of the opportunities for growth and development offered by the new global context while minimizing the risks of new imbalances and instabilities, including those in international financial markets. Greater integration of financial markets has increased the amounts and categories of financing potentially available to entities throughout the world economy. However, so far only a small minority of entities have actually achieved access to this financing. Moreover, the capital movements which have accompanied financial globalization have been associated with greater instability, and it has been frequently shown how greater financial openness can restrict autonomy in macroeconomic management. These features of financial glob-

alization have been recurring themes of recent issues of the *TDR*, which have monitored the effects of, and policy responses to, increased financial inflows into certain developing countries resulting from their progressive integration into the global network of financial markets,¹ and have reviewed major features of the legal framework of international financial liberalization as well as selected policy proposals aimed at the achievement of a more stable international financial system.² The observations concerning these subjects which follow are based largely on papers presented and subsequent discussion at the conference, *Capital Flows in Economic Development*, organized by the Global Interdependence Division of UNCTAD in cooperation with the Jerome Levy Institute of Bard College on 7-9 March 1996 at Blithewood, the home of the Institute on the campus of Bard College in Annandale-on-Hudson, New York.

B. Floating exchange rates and the liberalization of international capital movements

The abandonment of fixed exchange rates by major OECD countries at the beginning of the 1970s was widely believed at the time to lead to a system in which countries would have consider-

able autonomy in the pursuit of appropriate national macroeconomic policies, while exchange rates themselves would gravitate towards levels set by purchasing power parities. However, the out-

come proved to be different. Under the new regime of floating exchange rates the international financial system has been subject to instability in currency and other financial markets, and has been notable for levels of exchange rates which have obstinately diverged for long periods from those corresponding to economic fundamentals.

Currency volatility under the new regime has tended to fluctuate, with periods of increased volatility being interspersed with periods of calm. There have also been shorter episodes of exceptional instability in international financial markets, outstanding recent examples being the disruptions of the Exchange Rate Mechanism of the European Monetary System in 1992 and 1993. The effects on developing countries of the resulting instability take place through several channels. A large part of both their exports and their imports, as well as of their debt service obligations, are denominated in major currencies. Owing to mismatching of the denomination of external receipts and outflows their balance-of-payments positions are generally sensitive to relative movements in the values of different currencies and to changes in major interest rates. Moreover, increases in debt-service obligations resulting from higher interest rates often coincide with weakening export prospects, also closely related to dearer money. More recently, as the scale of foreign investment in the financial markets of certain developing countries has increased, these markets have become directly vulnerable to large shifts in sentiment among in-

ternational investors. An early example of the possible effects of such vulnerability was provided by the collapse of the stock market in Hong Kong during the crash of October 1987,³ and a more recent one by Mexico's financial crisis of late 1994 and early 1995, which not only led to a collapse of the exchange rate of the peso and of the value of other Mexican financial assets but also had spillover effects on other emerging financial markets.

Unsound economic policies can contribute to global financial instability. However, a recurrent lesson of recent experience of such instability is its frequently tenuous or non-existent connection to fundamentals such as countries' relative price levels, microeconomic performance and the stance of their macroeconomic policies. This appears to reflect the lack of a systematic relation between these fundamentals and the indicators used by actors in financial markets to guide their decisions as to holdings of different currencies. For example, much evidence suggests that many of these actors extensively use trading rules that rely on extrapolation of past movements and that are thus capable of perpetuating and accentuating movements of exchange rates frequently divorced from fundamentals.⁴ Such behaviour by traders also probably helps to explain the failure of economic models to account for short- and medium-term variations in major exchange rates in terms of variables such as money supplies, real incomes, interest and inflation rates, and balances on current account.⁵

C. Problems for developed and developing countries due to financial instability

Concern over international financial instability reflects the pervasive economic effects of fluctuations in capital flows and exchange rates on the prices of goods, services and financial assets, and is related to a number of different issues. The most important of these issues for policymakers is misalignment of exchange rates. Misalignment results from movements of exchange rates which are extended in time and should be distinguished from short-term currency volatility. The

term denotes exchange rates which, at reasonably full employment for the economy in question, are inconsistent with a sustainable external payments position as determined by the balance on current account and the longer-term propensity to attract or export capital. Misalignment is capable of distorting resource allocation through its impact on relative prices, of exerting perverse effects on activity, employment and the price level, and of generating protectionist pressures. In economies

with relatively small financial markets - for example, those of developing countries - misalignment due to large capital inflows is also frequently accompanied by booms in asset prices, the sequel to which is likely to be collapse when the capital flows eventually undergo a reversal.

Difficulties can also result from short-term volatility of exchange rates. The severity of these difficulties varies with the extent to which firms and other economic agents possess skills of financial risk management and have access to different instruments designed for this purpose. For large financial firms, as well as for non-financial firms with well-developed treasury-management functions, the hedging of fluctuations in exchange rates and other financial variables can be highly effective. Such hedging comprises long-established techniques such as the matching of assets and liabilities denominated in different currencies, price adjustments and invoicing practices, geographical diversification of operations, the timing of payments and receipts of foreign exchange, and the use of instruments such as forward, futures and options contracts designed to provide protection against exchange- and interest-rate fluctuations.⁶ Although the expansion of markets for hedging

instruments in recent years has facilitated the use of such techniques, it is not possible to achieve complete protection against financial volatility by these means. This impossibility is partly due to gaps in the coverage of hedging instruments (an example being the lack of forward and futures contracts for many currencies and maturities) and partly to the problems posed for current techniques of financial risk management by fluctuations in volatility itself outside specified ranges.⁷ Moreover for many firms and economic agents, especially those of developing countries, access to these techniques remains restricted or highly expensive, and fluctuations in volatility itself can be expected to be a source of still greater difficulties for them.

Evidence on the adverse effects of currency volatility on international trade and other economic activities is somewhat fragmentary. There is none the less widespread belief that short-term currency volatility abbreviates time horizons for investment decisions, raises transactions costs and, through its close relation to volatility of asset prices and interest rates, increases wealth holders' preferences for liquid as opposed to longer-term financial instruments.⁸

D. International regimes and the scope for policy

National policy responses to the threat of exchange-rate misalignment posed by unstable international capital flows are of several kinds, and are not mutually exclusive since different kinds of measures may be used to reinforce each other. One response is official intervention in the currency markets in the form of purchases and sales of foreign exchange.⁹ If there are persistent capital outflows, such a policy on its own will eventually lead to the exhaustion of a country's exchange reserves and credit lines. In the case of capital inflows official intervention causes an increase in the country's money supply unless its effects are sterilized. However, as is documented from the experience of selected developing countries in section E below, such sterilization usually entails some loss of control over domestic monetary policy and may lead to rises in interest rates and unwanted

increases in government indebtedness. The response to capital flows may also include fiscal tightening, but such action is frequently open to the objection that in consequence exogenous developments in international financial markets are being permitted to override national objectives regarding fiscal balance and public expenditure. Faced with the problems associated with handling the effects of capital flows solely through some combination of intervention in exchange markets and fiscal measures, countries may have recourse to actions aimed more specifically at the capital movements themselves. Some of the measures under this heading are in the form of taxes or tax-like restrictions which exercise their effect on capital transactions by increasing their costs and thus reducing their profitability. Other restrictions involve more direct limits on capital transactions.

Both categories of restriction have been extensively used by developed and developing countries to control outflows and inflows during the postwar period.¹⁰ However, in recent years OECD countries have become increasingly subject to self-imposed restraints regarding the use of such restrictions, embodied in the international legal regimes for capital transactions.

The only global regime applying to international monetary movements is that of IMF. But the most important obligations in its Articles of Agreement relate to current transactions and not capital movements. These are set out in Article VIII (which prescribes the obligation not to impose restrictions on payments and transfers for current international transactions without the Fund's approval) and in Article XIV (which specifies transitional arrangements for countries not yet willing to accept the obligations of Article VIII). Concerning international capital movements, Article IV contains, among the general obligations of IMF members regarding exchange arrangements, the statement that one of the monetary system's essential purposes is the provision of a framework facilitating the exchange of capital among countries.¹¹ In more specific references to capital movements in Article VI, section 3 provides for the exercise by member countries of such controls as are necessary to regulate international capital movements so long as they do not restrict payments for current transactions. Section 1 of the same Article gives the Fund the authority to prevent the use of its resources to finance a large or sustained capital outflow.

Developed countries, however, are subject to obligations under the OECD Code of Liberalization of Capital Movements and (in the case of members of EU) under the EEC Council's 1988 Directive on capital movements and the Maastricht Treaty. The OECD Code classifies the great majority of capital movements into two Lists, A and B, to the former of which more stringent liberali-

zation obligations apply. For much of the period of the Code's existence List A consisted principally of operations judged to have fairly close links to international trade in goods and services and to longer-term investment, while List B included operations in short-term financial instruments. But recently the scope of operations included in List A was extended to some hitherto covered by List B, and a number of previously uncovered money-market operations were added to List B.

The 1988 EEC Directive on capital movements forbids restrictions on those between residents of member countries subject only to provisos concerning the control of short-term movements during periods of financial strain and certain measures necessary for the functioning of tax and administrative systems and for prudential supervision. Under the Directive member countries are also committed to endeavour to attain the same degree of liberalization of capital movements with third countries as with each other. The provisions of the 1988 Directive are reinforced by the pertinent articles of the Maastricht Treaty applying to the second stage of economic and monetary union, which began in 1994. Once the third stage of this union starts, the imposition of controls over short-term capital movements during periods of financial strain for single-currency countries will continue to be permitted only with regard to non-EU countries.

Under current international legal regimes developing countries, on the other hand, have considerable latitude regarding controls over international capital movements. Some of them have none the less undertaken obligations in this area as part of Treaties of Friendship, Commerce and Navigation or of regional agreements involving limited numbers of countries such as the North American Free Trade Agreement (NAFTA). Moreover, such obligations may well become more common as the number and country coverage of regional agreements expand.

E. The international financial markets and developing countries: access and challenges to macroeconomic management

Notable features of the rise in private external financing for developing countries and economies in transition in the 1990s have been its concentration on a small number of recipients and

the varying character of the flows and of national policy responses to them. Both features have implications for the shape of an appropriate international financial regime and for international

economic policy more generally. The extreme unevenness of the distribution of external financing from private sources, which for several developing countries is associated with tight restrictions on, or the virtual absence of, access to such financing, means that there remains an indispensable and substantial role in the provision of development financing to be played by the official sector.

The variety of responses to increased capital inflows reflects divergences in the policy objectives and the perceived effectiveness of policy instruments in recipient countries. Such divergences point to the need for an international financial regime with rules that are sufficiently flexible to accommodate a broad gamut of policy measures on the part of developing countries and economies in transition regarding the capital account of the balance of payments.

The concentration of financial flows applies to all the major categories of financing from international capital markets. In recent years more than three quarters of external bond issues by developing countries and economies in transition have been accounted for by four borrowers in Latin America and five in Asia. More than 60 per cent of the value of syndicated international bank lending has gone to six Asian borrowers.¹² High levels of concentration, again involving countries which were also the main recipients of categories of financing already mentioned, have also characterized international equity issues, medium-term Euronote facilities and issues of Eurocommercial paper. Thus the great majority of developing countries have not shared in the increase in financing from the international financial markets of the 1990s. For example, little money from this source has been raised in securitized form by countries in sub-Saharan Africa, and net international bank lending to this region has been widely negative (although a recent analysis of the figures suggests that this unfavourable picture may be due in part to deficiencies of countries' reporting systems for balance-of-payments statistics).¹³

The breakdown of external financing by major categories has varied even among the main recipients, as discussed in more detail above (chapter II, section B). For example, FDI as a share of new capital flows amounted to 70 per cent for Singapore in the period 1991-1994, while for the Republic of Korea the corresponding figure was less than 10 per cent. Generally, bank lending was a relatively less important source of external financing for

Latin American than for Asian countries, while a number of Asian countries received relatively little financing in the form of international bonds and international equity issues.

Furthermore, there have been marked differences in the relation of these capital inflows to major macroeconomic variables and economic performance in recipient countries, their effects being determined by, *inter alia*, the size and composition of the inflows, exchange controls and regulations governing inward and outward financial operations, and the economic policies of the countries themselves. Thus in some countries, particularly certain Asian ones, the inflows were associated with increases in domestic savings and investment, whilst in others they were a substitute for, rather than a complement to, domestic savings, in consequence contributing much less to economic performance. In several of the recipients an important effect of the inflows has been to increase the fragility of the domestic banking system. Banks have been tempted by the availability of external financing at a low cost to finance local-currency operations from this source, including the acquisition of illiquid assets. The consequence has been the mismatching of currencies and maturities, the potentially destabilizing effects of which have been particularly important in countries lacking effective systems of prudential regulation.

Few of the major recipient countries adopted a largely or completely non-interventionist stance towards financial inflows. But considerable differences have none the less characterized the measures taken to ward off misalignment and other potentially adverse effects.¹⁴

There has been widespread recourse by recipient countries to intervention in foreign-exchange markets to prevent currency appreciation. However, where capital inflows were large relative to current-account deficits, such intervention created serious conflicts with domestic monetary policy objectives.

When intervention was not sterilized, there resulted rapid increases in money supply which threatened loss of control of monetary policy. Very rarely did the increases reduce interest rates, discourage capital inflows and ease the upward pressure on the currency. Fiscal tightening has been recommended as a way of solving the problems arising from non-sterilized intervention. This

would be achieved, first, by restraining domestic absorption, and secondly, by generating a budget surplus to absorb the excess supply of foreign exchange, which could be used to reduce foreign-currency public debt. However, fiscal policy has often lacked the flexibility required. Furthermore, the scope for generating fiscal surpluses without undermining the efforts to develop human and physical infrastructure has generally been limited. Thus, very few countries have been willing to subordinate the goals of their fiscal policies to the offsetting of the impact of external capital flows.

Sterilization of intervention in foreign-exchange markets to offset its impact on money supply and prices through sales of interest-bearing government paper, on the other hand, increases interest rates, thus accelerating capital inflows. Indeed, the high-yield short-term government debt issued as part of the sterilization policy has itself often become a source of attraction for additional capital inflows. Paradoxically, in many cases a deterioration in the fiscal position has also resulted, since the rate of interest earned on the increased exchange reserves thus required was almost always below that paid on short-term government debt. These quasi-fiscal deficits also were themselves a source of increases in money supply in countries where intervention was sufficiently large and interest differentials were substantial.

Other methods of sterilization have also been used, including restrictions on domestic credit expansion through increases in statutory reserve requirements, window guidance and direct controls, and increases in discount rates. Some countries have also used central bank swaps, selling foreign currency to domestic financial institutions that are required to invest it abroad with the implicit guarantee that the central bank would make good any losses due to interest-rate differentials or exchange-rate adjustments. However, such methods have typically provided only temporary relief and, by creating losses and pushing up interest rates, have often aggravated the problem to which they were a response.

The problems associated with sterilized intervention have led to other policy responses to large capital inflows. For example, import liberalization has been tried as a way of absorbing the excess supply of foreign exchange. But such liberalization can result in increased import dependence or higher imports of consumption goods. The loss of government revenue due to the tariff reductions

associated with import liberalization can also contribute to fiscal imbalance.

An approach without such adverse side-effects has been the adoption of more flexible exchange-rate policies. The avoidance of rules for official intervention and of advance announcement of devaluations, the widening of currency bands, and the linking of the currency to a basket of currencies rather than a single benchmark currency can increase the effectiveness of monetary policy and slow capital inflows by introducing uncertainty regarding movements of the exchange rate. But this approach involves the risk of sacrificing the benefits sought from exchange-rate stability.

There has also been increasingly widespread recourse to more direct controls over capital inflows, but with considerable variation among countries in the extent to which such controls were integrated into overall balance-of-payments policy as opposed to constituting an ad hoc response to the problems caused by the inflows. For example, some countries, notably the Republic of Korea, geared controls to the state of their current account: when the current account deteriorated, restrictions on capital outflows were tightened, while those on inflows were loosened, and vice versa when the current account recorded a surplus and the currency came under upward pressure. The main strategic consideration in this approach has been maintaining competitiveness irrespective of whether the current account was in surplus or deficit. Capital flows have not been allowed to govern the exchange rate and the current-account balance, but rather developments in the latter have dictated the way in which capital controls were implemented. Restrictions have been maintained on holding and issuing foreign-currency assets in the domestic market, so that shifts between domestic and foreign assets have been more likely to involve cross-border transactions. This has greatly facilitated the regulation of capital flows. Other countries, in both Latin America and Asia, have also regulated capital flows successfully but their approach has been somewhat different. They have resorted to regulation of inflows or deregulation of outflows (or both) only after capital inflows had already started to undermine competitiveness or to widen the current-account deficit (or both), or when intervention in the foreign-exchange market had already proved problematic for the reasons already described. Consequently, these countries have experienced greater instability of capital flows, current-account balances and exchange rates.

The measures used by developing countries to control capital inflows have included both the taxes and tax-like restrictions and the other, more direct, limits on capital transactions mentioned in section D above. The measures have often differentiated between FDI and portfolio investment, and between categories of capital transaction.

One of the more successful instruments of control, which is designed to close the arbitrage gap between returns on foreign and domestic assets, has been non-interest-bearing reserve requirements for inflows. Variable reserve requirements have been applied when setting the reserve requirement at a single level which did not undermine long-term investment proved ineffective in checking short-term capital inflows. In such cases the reserve ratio varied inversely with the maturity of the investment. Reserve requirements discourage capital inflows by reducing their net effective rate of return, thus having an effect much like a levy on foreign-exchange transactions. These reserve requirements were a policy tool independent of normal prudential regulations. Some Latin American countries have also actually imposed taxes on selected capital inflows.

Risk-adjusted capital requirements have been applied to banks' and institutional investors' acquisition of assets abroad. Foreign-currency deposits, foreign-currency borrowing and interbank credits have been included in defining the base for

statutory reserve and liquidity requirements. In countries which have successfully managed capital inflows, regulations designed to reduce the currency mismatch between assets and liabilities and to restrict open positions in foreign exchange have typically been a permanent feature of the financial system. A number of quantitative restrictions have also been deployed, including restrictions on issues of external bonds and American Depository Receipts (ADRs) in the form of specification of minimum issue sizes and credit rating for the issuers, the prohibition of sales of money-market instruments such as Treasury bills to non-residents, bans on commercial banks' swaps unrelated to trade, and quantitative limits on offshore borrowing by public enterprises and commercial banks and on forward transactions with non-residents.

Experience so far suggests that successful management of capital flows depends on combining in a flexible and pragmatic manner the tools of macroeconomic policy with regulations designed to reduce the volatility of such flows by deterring interest-rate arbitrage, limiting destabilizing speculation, and avoiding bubbles in asset prices and exchange rates. While macroeconomic policies characterized by consistency and by fiscal and monetary discipline have been essential prerequisites for the management of capital flows, such policies needed to be accompanied by other measures, directly affecting the capital account.

F. Other global policy actions

1. Introduction

As explained in section D above, OECD countries have now accepted obligations under the OECD Code of Liberalization of Capital Movements and the regime of the EU which substantially restrict their freedom to use capital controls. Nevertheless, there is continuing discussion in these countries concerning international policy actions consistent with these constraints which would have the aim of producing more orderly financial markets and of avoiding crises due to volatile capital

movements as well as handling such crises when they occur. The actions proposed include financial integration, macroeconomic policies aimed at economic convergence, an international lender-of-last-resort facility, arrangements for preventing difficult balance-of-payments situations from developing into full-blown financial crises, new techniques of official intervention in the currency markets, improved prudential supervision of firms engaged in international financing, and various tax and regulatory measures directed at the reduction of international financial instability.¹⁵ The policy

actions which are discussed in this section are mostly directed in the first instance at financial instability and volatile international capital movements among OECD countries. But they also take account of developments due to the integration of financial markets and its consequences for developing countries. Moreover, the benefits of more orderly financial markets generally would also extend to developing countries.

2. Monetary union and financial integration

One way to avoid the problems caused by the effects on exchange rates of volatile international capital movements is to introduce a single currency. Monetary union is not a realistic prospect at a global level but is envisaged for EU countries under the Maastricht Treaty. The attainment of monetary union is generally believed to require the convergence of potential members with respect to key economic criteria - involving for EU the stability of exchange rates, a specified permissible deviation of interest rates from a benchmark, and the avoidance of excessive government debt and deficits. However, rules such as those embodied in the Maastricht Treaty are inherently deflationary by virtue of their requirement that countries with excessive deficits should retrench without corresponding obligations regarding more expansionary monetary policies or the adoption of more expansionary fiscal policies by countries capable of doing so, while still meeting the Treaty's fiscal criteria.¹⁶ Moreover, the discussion of the behaviour of exchange rates in section B above points to doubts that progressive convergence regarding economic fundamentals will ensure achievement of the required stability of exchange rates in the presence of freedom of capital movements.

Political agreement on the introduction of a single currency is not the only approach to financial integration. An alternative, which might be described as "bottom upwards", in contrast to the "top downwards" instrument of a single currency, would rely on profit incentives at the level of banks and other financial institutions for the achievement of a continuous and orderly process of external-payments adjustment.¹⁷ All restrictions would be removed on the use of currencies of member countries, thus making them legal tender throughout the financially integrated region. Banks would thus

offer deposits in any of the region's currencies, and could consequently be expected to hold foreign-currency deposits as part of their primary reserves and short-term foreign currency assets among their secondary reserves. An external payments imbalance in any part of the region, whether caused by flows on current or capital account, would then require banks in the deficit area to sell foreign-currency assets, increasing domestic deposits of banks in the surplus area and decreasing them in the deficit area. The interest-rate differentials which could be expected to result from these actions by banks would then move in favour of the deficit area so that banks in the surplus area would be attracted by the resulting higher yields to expand their holdings of the deficit area's assets, thus automatically generating increased demand for its currency.

3. Policies for macroeconomic convergence

Macroeconomic policies designed to lead to convergence with regard to fundamental variables such as inflation, interest rates and fiscal deficits are often put forward as the key element of a strategy aimed at achieving greater international financial stability. A major difficulty with this approach would be that of obtaining international agreement covering the United States, EU countries (both those eventually entering the monetary union and those staying outside), Japan and other countries on the required levels of these fundamentals and on the measures necessary to attain them. Furthermore, and perhaps more fundamentally, the evidence discussed above in section B casts doubts on whether currency markets and international capital flows are closely connected to economic fundamentals as presupposed by this approach. Indeed, experience suggests that the theories underlying advocacy of convergence with regard to such fundamentals have little or no relation to indicators widely used by actors in financial markets to guide their decisions concerning their holdings of different currencies.

4. An international lender of last resort

National central banks typically are called upon to provide support to financial institutions facing temporary liquidity shortages in order to prevent them

from growing into more generalized insolvencies. An analogous institution at the international level is lacking, although volatile international capital movements are now capable of subjecting entire economies to severe strain (often in situations where such movements cannot easily be justified on the basis of the economies' fundamentals). An international lender of last resort would require large financial resources and access to all major currencies.

A role with several features of an international lender of last resort was originally envisaged for IMF as part of the postwar international financial system. However, this role was to apply only to current-account transactions, and its extension to capital transactions would require reinterpretation of Article VI (described above in section D). Current proposals for a Short-Term Financing Facility (STFF) are designed to allow IMF to play a more active role as lender of last resort to developing, and possibly other, countries.¹⁸ Resources under this Facility might be available for rapid disbursement to offset the impact on countries' external payments of capital outflows due to changes in market sentiment and speculative pressures which do not reflect economic fundamentals. In such situations the Facility would contribute to the avoidance of excessive currency depreciations and deflation, and would reduce the risk of default on external obligations.

The case for such a facility was dramatized by the recent Mexican crisis. Establishing it would require decisions concerning issues such as country coverage, the procedures for disbursement of funds, the conditions associated with drawing rights, the level of access in relation to IMF quotas, the maturity of loans, and the amount of the facility's financial resources and the modalities of raising them. The size of any such facility presents a particularly difficult problem, since the financial support mobilized for countries during recent currency crises has frequently amounted to large multiples of existing IMF quotas. Some of the problems which would have to be confronted are indicated by the difficulties being experienced over the implementation of the initiative of the Group of Ten to increase the resources of the General Arrangements to Borrow, which provide a line of credit to IMF. Under this initiative the group of countries which would make available resources for this line of credit would be expanded, but there have been disagreements over the association of the new countries involved in the decision-making process regarding the use of these resources.

Tighter surveillance of countries' policies and performance could be expected to accompany the establishment of a STFF. Moreover, it would be reasonable to expect, as a complement to the provision of an international lender-of-last-resort facility, pressures for various types of action which might contribute to more orderly international financial markets.¹⁹ One proposal frequently put forward in this context, concerning policies for macroeconomic convergence, was mentioned above. The two which immediately follow were partly or wholly inspired by the policy debate in the aftermath of the Mexican crisis, whereas those taken up subsequently are proposals of longer standing.

5. More orderly arrangements for handling emergent external payments problems

The Mexican financial crisis has led to a revival of discussion of formal arrangements for the handling of external debt and payments problems which would be less ad hoc than current ones, and less likely to generate controversy concerning appropriate international policy responses. Such arrangements would be intended, *inter alia*, to prevent incipient problems in a debtor country from developing into full-blown crises marked by the collapse of the exchange rate and economic activity and a threat to its banking system as well as possible spillover effects on other countries' financial markets.

One of the more fully articulated proposals²⁰ for this purpose would have the following principal elements: a signalling role for IMF under which in appropriate circumstances the Fund would indicate to a debtor country its approval of a temporary suspension of debt-service payments, subsequently also disclosing its action to the financial markets in order to help in the avoidance of a panic; the creation of a representative bondholders' committee, which would minimize uncertainty as to the terms of authority in negotiations on the restructuring of debts in the form of external bonds; a mediation and conciliation service designed to speed negotiations between the debtor and the bondholders' council; changes in bond covenants designed to permit a majority of creditors to alter the terms in the interest of the speedy settlement of debt restructurings, thus preventing small minorities from holding up the progress of negotiations; and an arbitral tribunal to which dissident credi-

tors could have eventual recourse - an arrangement which, it is hoped, would make contractual innovations regarding bond covenants more palatable. The role of IMF under this proposal would be closely related to that envisaged for it in the event of the establishment of a STFF. Solutions to the problems of countries imposing temporary standstills on debt-service payments would be found primarily through negotiations with creditors. But IMF would be provided with additional resources which would be available for rapid disbursement in situations where the stability of the debtor's banking system was threatened, there was a danger of contagion in the form of the spread of instability to other emerging financial markets, or the run on the debtor country had a self-fulfilling character unconnected to weak fundamentals.

The proposal's contribution to more orderly financial markets would depend on whether an IMF-approved standstill on debt-service payments preceding recourse to more orderly arrangements for working out a debtor's problems would prevent a run by investors. The authors believe that in the case of Mexico in late 1994 approval by the Fund of a suspension of debt-service payments on *tesobonos* and *cetes* would have helped to contain the crisis by halting the run on Mexican assets, thus eliminating the need to bail out private investors with public funds, though not necessarily avoiding many of the other adverse developments such as the spillover effects on other financial markets.²¹ In their view, however, the policy response to the Mexican crisis is extremely unlikely to be repeated, and their proposal would contribute to reducing the instability associated with future crises, since it would be known in advance that massive rescue packages would no longer be forthcoming. Doubts regarding their proposal concern the difficulty of anticipating both the dynamics of international financial crises and creditors' responses.

6. International standards of prudential supervision

At the national level the regulatory framework for financial systems includes not only a lender-of-last-resort facility and orderly arrangements for handling insolvencies but also prudential supervision of financial firms. Recent years have witnessed efforts to develop an international regime of prudential supervision which would cover the rapidly expanding cross-border operations of such firms.

International initiatives to improve the prudential supervision of banks with such operations date from the 1970s, and were a response to the awareness of regulatory authorities in countries with large financial centres that a major banking default could have a destabilizing effect that extended beyond the jurisdiction in which it took place. The main sources of these initiatives have been the Basle Committee on Banking Supervision and the Bank for International Settlements (BIS).²² The early work of the Basle Committee was concerned with strengthening the standards of prudential supervision of international banks and improving international supervisory cooperation, better internal controls for banks' international credit risks and internationally uniform standards for the capital set aside for banks' credit risks. More recently the Basle Committee's attention has been turned to capital requirements for market risks, namely risks due to changes in the prices of different components of banks' trading books. Other bodies associated with BIS have focused on reducing the risks of payments and settlement systems, the development of statistics for the global market for foreign exchange and closely related financial instruments, and supervisory and accounting standards for financial conglomerates. These initiatives can be expected to contribute to greater financial strength and improved risk management for international banks.

The effects of these initiatives are not limited to members of the Basle Committee and BIS. Standards promulgated by the Basle Committee are accepted in many other countries. This process will be reinforced by the insistence of many countries during the negotiations on financial services in WTO on inclusion of observance of these standards by regulators in banks' home countries among conditions for the granting of market access. However, the main focus of international supervisory initiatives has been default risk. Better internal controls and improved allocation of capital to banks' different activities may reduce, but will not eliminate, their involvement in speculation. Moreover, the remit of banking supervisors in many countries does not include non-bank securities firms (whose supervisory bodies are represented in other multilateral organizations, such as the International Organization of Securities Commissions (IOSCO)), let alone the increasing number of non-financial institutions which now take large positions in the international financial markets. The activities of these non-bank participants in the markets are widely believed to be major sources of recent international financial volatility.

7. Capital requirements and restraining currency speculation

Suggestions have been put forward for more direct use of prudential regulation regarding banks' capital as an instrument for restraining currency speculation. The primary function of banks' capital is to absorb losses which might otherwise threaten their continued operation. But if the size of balance-sheet positions permitted under banking regulations is linked to the capital supporting them, such requirements can also restrict the scale of banks' involvement in particular activities. Accordingly, it has been proposed that an internationally agreed surcharge should be imposed on capital requirements for banks' open positions in foreign exchange so as to increase the costs to them of currency speculation.²³ The agreement would have to extend to all financial centres to prevent its frustration by the flight of currency trading to jurisdictions where the surcharge did not apply.

A major problem to which such a surcharge on a permanent basis would give rise is that it would be at variance with the approach to managing market risks embodied in the procedures for determining capital requirements for such risks adopted by the Basle Committee at the beginning of 1996.²⁴ Under these procedures, which are intended to serve as the basis for regulations which will be implemented by the end of 1997, banks will be permitted to use proprietary risk-management systems to measure market risks. The core of these procedures is the setting of a bank's capital charge on the basis of a measure generated by its in-house model of the value at risk of its trading book, that is to say of the maximum loss on the trading book expected during some period at a specified level of confidence. Some allowance for offsetting correlation effects between broad categories of risk (interest rates, exchange rates, equity and commodity prices) will be permitted, so that the market risk associated with foreign exchange positions will not be segregated. Use of an alternative method for calculating capital requirements, which does segregate positions in foreign exchange and precious metals, is also possible, but widespread use by banks of proprietary models to generate their capital requirements will mean that estimation of these requirements will not be carried out on a uniform basis. Thus, while the imposition of capital charges as a measure to restrain currency speculation remains a policy option, such action would now be at variance with the approach to managing market risks embodied in the 1996 guide-

lines of the Basle Committee. Recourse to such charges seems more likely as part of an emergency policy response to a crisis in the foreign-exchange markets than as a measure imposed on a more permanent basis (in spite of the likelihood that their effectiveness will often be limited in such circumstances).

8. New methods of intervention in foreign-exchange markets

Recent financial innovations designed to facilitate risk management have furnished new opportunities not only for private-sector participants in international financial markets but also for monetary authorities. There is a long tradition of intervention by central banks not only in the spot but also in the forward foreign-exchange market. Creation of forward markets as a vehicle for intervention was urged by Keynes during the interwar period. In view of the relationship of forward premiums to international interest-rate differentials, Keynes proposed intervention in the forward market by the central bank as a way of influencing capital flows without changing official interest rates. The possibility of defending the spot exchange rate in this way at no immediate cost to official reserves has been extensively analysed in the literature,²⁵ and such intervention played an important part in the defence of sterling in the 1960s. Forward exchange contracts are a form of derivative instrument, so that unsurprisingly the recent proliferation of derivatives has been accompanied by proposals for the use by central banks of the new instruments for the purpose of hedging their foreign exchange reserves and of intervention in the foreign exchange market.

For example, the former Director of the Group of Thirty has proposed that central banks purchase far-out-of-the-money put options on their currencies as a technique for defending the exchange rate against the effects of large speculative outflows.²⁶ The technique would have relatively low costs since the out-of-the-money options would have low premiums. In the event of downward pressure on the currency, the options could be exercised, thereby providing additional reserves to limit the depreciation. The reserves could also be used to sterilize the funds used to exercise the put contract.

There are many other potential uses of options for official intervention in the foreign-

exchange markets. For example, the sale of covered calls on foreign currency could also be used as part of the defence of an upper limit for a country's exchange rate. Likewise, in order to prevent an undesired currency appreciation due to excessive capital inflows, the central bank might write put options on a foreign currency. The Hannoun Report even raised the possibility that by writing currency options and thus reducing option premiums central banks might also reduce implied volatility, thus producing a desired signalling effect helping to counter disorder in the foreign-exchange market.²⁷ However, the ultimate result of such intervention is not clear, since changes in prices due to reduced implied volatility would have an additional effect on the delta hedging of options positions by dealers.²⁸

Derivative products clearly provide banks with additional instruments for intervening in foreign-exchange markets, but two caveats are in order. Firstly, not only must a market for options in the currency exist (a condition which is likely to require the existence of a futures market, as most options are written on futures contracts), but also, if intervention via options is to provide an effective alternative to that in the forward market, the market for options should be reasonably liquid. Secondly, a central bank might have to confront criticism, similar to that which it faces if it fails to defend its currency through intervention in the forward market, that it has provided the counterpart of speculators' profitable forward sales. Where the recourse to put options is a means of defence against capital outflows the criticism might take the form that the central bank was speculating against its own currency and, if its initiative were successful, that it had generated profits for banks in exchange for instruments which had expired unused.

9. Taxation of foreign-exchange transactions

In recent debate on ways to control instability in the international financial markets there has been much discussion of the idea of taxing foreign-exchange transactions, originally proposed by James Tobin in the 1970s.²⁹ Such a tax, which has also attracted interest as a potential source of revenue for various internationally agreed purposes, presents a series of difficult, though not necessarily insuperable, practical problems. Decisions

would be necessary concerning the locations at which the tax would be imposed, the level of the tax, and the coverage of instruments.

The question of location has been subjected to a thorough discussion by Kenen in a recent volume on different aspects of the Tobin tax.³⁰ Kenen plumps for the location or locations at which the deal is made in preference to the site or sites at which the deal is booked (which would not be identical if booking is done at the head offices of the overseas branches of the dealers' banks) or to the country in which settlement takes place (when settlement, for example, involves the transfer of sums between banks' correspondents). One difficulty frequently raised in connection with the Tobin tax is the possibility that some financial centres would refuse to impose it, with the consequence, as in the analogous case of a surcharge on banks' capital requirements discussed in the preceding subsection, that these centres would attract large amounts of additional currency trading from other locations. Kenen also suggests a possible solution to this problem, namely the taxing of transactions with tax-free trading sites at a punitive rate. But, as he admits, while this could act as a strong disincentive to the migration of currency trading to smaller financial centres, it would not be an effective response to the refusal of a major financial centre already used by many traders (say, London) to join the scheme.

Decisions on the level and coverage of the tax cannot be divorced from consideration of its likely effects. Yet conclusions as to these effects are still speculative. Proponents of the tax have noted the way in which the expansion of currency trading has been accompanied by increased exchange-rate volatility. Thus, if the tax succeeds in reducing the volume of trading, so the argument continues, it should also reduce volatility.³¹ There is indeed evidence that low percentage taxes or charges can have significant effects on both the levels and the character of financial transactions. To take one recent example, the fee of 10 basis points imposed by the Federal Reserve on daylight overdrafts in April 1994 reduced their amount by 40 per cent in the subsequent six months.³² Another example is given in analysis of the stock market crash of October 1987 in the publication, *The Quality of Markets Report*, which attributed the limited role of programme trading in London at that time partly to tax and stamp duty.³³ More mundanely it should also be recalled that mutual funds sometimes impose exit fees on shareholders which vary inversely

with the holding period.³⁴ These charges act as a disincentive to herd selling by shareholders (though the consequent impact on the funds' investment managers is only indirect).

Quantitative research on the relation between trading volume and volatility is to be found mainly in studies of stock markets, which have investigated such subjects as the influence of the absence of trading on the volatility of daily returns on stocks³⁵ and the effects on stock markets of the introduction of transaction taxes or of increases in transaction costs. Two studies under the latter heading are of special interest in the context of the Tobin tax. The first³⁶ shows that the introduction of transaction taxes in the Swedish stock market caused an increase in volatility, and that daily volatility was greatest when the tax was at its highest level. The second³⁷ concerns the effects on volatility of the elimination in May 1975 of the New York Stock Exchange's 193-year-old system of fixed commission rates, and the results confirm the lack of an inverse relation between the level of transaction charges and volatility. Although the conclusions of these studies are not directly applicable to the foreign-exchange market, they should give pause to advocates of transaction taxes for restraining volatility in that area.

The difficulties of forecasting the effect of the introduction of a Tobin tax are enhanced by the complexity of the techniques through which traders now take positions in the foreign-exchange market. These positions often involve combinations of transactions, including recourse to derivatives. As a result, currency volatility depends on trading behaviour in a number of different, though closely related, markets. To be effective, a transaction tax should thus presumably apply to all these markets. But owing to this multiplicity of markets, forecasting the effects of a transaction tax becomes correspondingly harder.

A tax with the required comprehensiveness with regard to coverage of instruments and transactions would entail the solution of several awkward and sometimes novel problems of tax design. Spot and forward foreign-exchange transactions seem relatively straightforward: the tax could be assessed at a percentage rate of the transactions' value. Since foreign-exchange swaps, which combine simultaneous spot and forward transactions, are typically priced in the market as a single transaction, they might be treated in the same way for the purpose of the tax, being assessed

on the same basis as simple spot or forward deals. But this does not exhaust the problems of tax design for these transactions since, for example, the timing of the tax obligation must still be decided. Currency futures might also be taxed at a percentage rate on the notional value of the contract. In this case the tax, if imposed when the contract is initiated, would have an effect on cash flow similar to an increase in the initial margin.³⁸ For currency swaps³⁹ the transaction tax might be imposed on the streams of netted payments⁴⁰ and on exchanges of principal, since these payments seem to correspond most naturally to the actual foreign-exchange transactions associated with such swaps.

Designing a transaction tax for currency options is likely to be particularly difficult. One solution might be to tax them only when they are exercised. However, this would leave untaxed options positions settled through offsetting in the options market (i.e. in the form of sales of contracts by longs or buyers, and purchases by shorts or sellers), and could be expected to enhance the attractiveness of currency options in comparison with other transactions as an instrument for hedging and portfolio management as well as for currency speculation. Stiglitz has proposed taking an option's strike price as the base for the transaction tax.⁴¹ Puts and calls would then be taxed at 50 per cent of the rate applying to other foreign-exchange transactions, the rationale being that the pay-off to a long position in a call combined with a short position in a put at a time near the maturity of the contracts is approximately equivalent to the pay-off on an investment in the underlying asset.⁴² But this equivalence applies when the exercise price of the option is equal to the price of the underlying asset and thus does not hold in all circumstances. Nevertheless, the idea may point towards a fruitful approach to tax design for currency options, namely the breaking-down of options positions into equivalent combinations of other contracts for which the design of transaction taxes is easier.

10. Alternatives to the Tobin Tax

A number of alternatives to Tobin's proposal have been advanced with similar objectives. These are framed to avoid problems such as those due to the difficulty of defining what is and what is not a foreign-exchange transaction. Dornbusch, for example, has proposed taxing all cross-border

payments.⁴³ While this approach has the virtue of simplicity, it would not eliminate all forms of evasion, since it would not be applicable to back-to-back transactions.⁴⁴ Moreover, since it adds to the costs of a wider variety of transactions than the Tobin tax, there is a risk that the proposal would meet with correspondingly stronger political resistance. The proposal is also open to the objection that the tax would be borne disproportionately by current, rather than capital, transactions.

An alternative to taxing foreign-exchange transactions for the purpose of reducing currency speculation, and one which might naturally occur to many economists, would be to tax the short-term profits of currency trading at a punitive rate.⁴⁵ Such a tax might be regarded as an instrument designed to achieve objectives analogous to those sought for stock trading from the 100 per cent tax on short-term gains proposed by the famous United States investor, Warren Buffet.⁴⁶ An internationally agreed tax of this kind would have to raise the taxation of short-term profits from currency trading to a uniform level if it were not simply to lead to the transfer of foreign-exchange business to lightly taxed jurisdictions.⁴⁷ Putting such a tax in place would seem a tall order, but the problems involved are none the less worth a somewhat closer examination.

Profits from trading, including that in currencies, are generally already subject to taxation, so that the base for an internationally agreed tax could be readily identified. But pre-existing tax systems would pose difficulties to the design of a supplementary international tax. These systems vary considerably among countries and, in respect of the newer instruments through which foreign-exchange positions can be taken, are often underdeveloped.⁴⁸ Moreover, in several countries the systems incorporate concepts inconsistent with the across-the-board approach on which an internationally agreed tax on trading profits would presumably have to be based.

For example, in many countries the tax treatment of profits associated with positions in currency futures and currency swaps depends on whether they are held for the purpose of hedging or speculation, the distinction frequently being related to the corresponding accounting treatment.⁴⁹ Since the objective of taxing short-term profits on foreign-exchange trading would be precisely to restrain speculation, there might seem to be an argument for incorporating the same distinction in

the internationally agreed tax. However, achieving agreement on this subject, as on many other technical aspects of such a tax, could be expected to be, if anything, still more difficult than on the practicalities of a transaction tax.

11. Concluding remarks

Discussion of ways to bring greater stability to international financial markets has so far proved inconclusive. Those emphasizing the need for policies to achieve the "right" levels of fundamentals appear to ignore the frequently tenuous connection between fundamentals and the decisions of participants in the foreign-exchange market. Those who put forward measures directed at the processes associated with transactions have to confront the difficulty of delimiting the foreign-exchange market and dealing with the wide-ranging effects of rapid financial innovation.

For some financial markets their institutional structures make possible the imposition of rules designed to keep speculation within bounds and to prevent excessively large short-term movements of prices. These rules include daily price limits, circuit breakers under which trading is halted if prices fall by specified amounts, and position limits restricting the number of contracts which a speculator may hold. However, the global nature of the foreign-exchange market and the multiple channels linking it to the markets for other financial assets seem to rule out the application to it of such measures.⁵⁰ In consequence, there have been calls for the establishment of a central clearinghouse for foreign-exchange transactions, but technical, financial, organizational and political impediments make the idea seem utopian.

Financial innovation has in recent years produced an environment in which not only have there been large changes in the elements of financial markets that are the subject of tax and regulatory measures but also the traditional conceptual framework for classifying these elements has lost some of its relevance. Of special importance in the latter connection is the way in which derivative instruments have eliminated any sharp distinction between long- and short-term investments, with the result that the traditional association of an investment's maturity with its degree of permanence no longer holds as it once did. Derivatives now make it possible to construct synthetic equivalents of

long-term investments through the combination of such instruments with positions in short-term assets. As a result, there is a risk that the benefits of any reduction of speculation due to increased transaction charges (following, say, introduction of a Tobin tax) might be offset by the costs of disrupting arbitrage processes and what are now normal methods of managing cross-border financial risks. Moreover, international agreement on the imposition of increased transaction charges would have to be reached in circumstances in which those responsible for national frameworks of taxation and regulation are struggling to adapt them to what one famous analyst of financial markets has called “the new financial world”.⁵¹

However, the difficulties of international action to control financial instability should not divert attention from the possible adverse economic consequences of such instability. Concern over financial

instability tends to peak in the aftermath of periods of disorder in the currency markets, progressively subsiding as calm returns. It is possible to conceive a future in which periods of disorder would become less frequent and their effects less pervasive. For example, monetary union may be successfully introduced in the EU, its coverage being progressively extended to more member States, while improved risk management and tighter control of open foreign-exchange positions within financial firms could easily reduce their involvement in speculation. But even this optimistic scenario would leave important parts of the foreign-exchange markets open to the influence of speculative forces, and more pessimistic scenarios can also be envisaged. If the misalignments and volatility which are associated with foreign-exchange instability persist, they are capable of threatening countries’ trading relations and more generally of posing a challenge to greater coherence in global economic policy making, a goal now publicly endorsed by Governments.⁵² ■

Notes

- 1 Notably *TDR 1992*, Part Two, chap. I and annex II; *TDR 1993*, Part One, chap. III, and Part Two, chap. III; *TDR 1994*, Part One, chap. III; and *TDR 1995*, Part One, chap. II.
- 2 See *TDR 1990*, Part Two, chap. I, and *TDR 1994*, Part Two, annex to chap. II.
- 3 See the survey of the views of international investors concerning the stock exchange of Hong Kong undertaken as part of the aftermath of the crash of October 1987 and described in Securities Review Committee, *The Operation and Regulation of the Hong Kong Securities Industry: Report of the Securities Review Committee* (Hong Kong, 1988), appendix 9.
- 4 See, for example, M.R. Rosenberg, *Currency Forecasting: a Guide to Fundamental and Technical Models of Exchange Rate Determination* (Chicago, etc.: Irwin, 1996), pp. 337 and 379. A more radical critique of the very idea of identifiable fundamentals as determinants of market outcomes has been put forward by one of the best-known actors in the global currency markets, George Soros. According to this critique, market participants’ understanding of such outcomes is necessarily imperfect but none the less serves as the basis for their decisions, which determine subsequent outcomes. This theory (which Soros dubs “reflexivity”) “connects facts to perceptions and perceptions to facts in a shoelace pattern, [yielding] a ‘shoelace’ theory of history”. It can easily be visualized that in the foreign exchange markets such interactions are capable of generating cumulative movements in currency prices. G. Soros, *The Alchemy of Finance: Reading the Mind of the Market* (London: Weidenfeld and Nicholson, 1988), chaps. 1 and 3.
- 5 See, for example, J.A. Frankel and A.K. Rose, “A survey of empirical research on nominal exchange rates”, *NBER Working Paper No. 4865*, 1994.
- 6 For a fuller non-technical account of the techniques of financial risk management see D. Ross, I. Clark and S. Taiyeb, *International Treasury Management* (New York: New York Institute of Finance Corp., 1987), chaps. 3 and 4. Case studies of the management of currency risk can be found in G.J. Millman, *The Floating Battlefield: Corporate Strategies in the Currency Wars* (New York: AMACOM, 1990).

- 7 It should also be noted that financial and competitive risks may be interdependent. This point can be illustrated with an example from Ross, Clark and Taiyeb (*op. cit.*, p. 7). Consider a hypothetical company which imports wine from country B into country A. Unlike its main competitors, it covers its requirements for B's currency early in a particular year in the forward market. However, during the year there is a depreciation of the spot rate for B's currency of about 25 per cent. If the costs of the hypothetical company were locked in at the forward rate prevailing early in the year, while its competitors were in a position to sell at prices up to 25 per cent lower, the company might be in danger of being forced out of business. Recently developed risk-management instruments have facilitated the task of extricating companies from situations of this kind. For example, break-forward contracts can now be purchased, providing customers at an additional cost the option of reversing forward contracts if the spot exchange rate reaches a certain level.
- 8 For surveys of estimates of the effects of fluctuations in exchange rates on international trade see section B of the study by the UNCTAD secretariat, "The exchange-rate system", in *Compendium of Selected Studies on International Monetary and Financial Issues for the Developing Countries* (UNCTAD/ST/MFD/4), United Nations publication, Sales No. E.87.II.D.3, and *Exchange Rate Volatility and World Trade*, IMF Occasional Paper No. 28 (Washington, D.C.: IMF, 1984), chaps. IV-VI. The somewhat inconclusive nature of these empirical estimates should not be a source of surprise, according to a the former chairman of the United States Federal Reserve System, Paul Volcker, since "in a world in which so many things are happening at once, it is hard to pin down the effects of any one factor. But the logic of the situation suggests to me that, over a long period of time, the costs in economic efficiency must be substantial." P. Volcker and T. Gyohten, *Changing Fortunes: the World's Money and the Threat to American Leadership* (New York: Times Books, 1992), pp. 292-293.
- 9 Official intervention in foreign-exchange markets may also be used to restrain shorter-term currency volatility (see below, section F).
- 10 Such restrictions by developing countries in response to recent capital inflows are discussed in the next section.
- 11 As part of its surveillance function over exchange arrangements IMF is frequently supportive of varying degrees of liberalization of capital transactions by member countries. See P.J. Quirk, O. Evans *et al.*, *Capital Account Convertibility: Review of Experience and Implications for IMF Policies*, IMF Occasional Paper 131 (Washington, D.C.: IMF, October 1995), pp. 5-7 and 22-24.
- 12 For the concentration of the distribution of external financing in 1995 see chap. II, sect. A above.
- 13 See L. Kasekende, D. Kitabire and M. Martin, "Capital inflows and macroeconomic policy in sub-Saharan Africa", paper presented at the conference, *Global Capital Flows in Economic Development*, p. 7.
- 14 The discussion which follows makes extensive use of G. Le Fort and C. Budnevich, "Capital account regulations and macroeconomic policy: two Latin American experiences", and Y.C. Park and C.-Y. Song, "Managing foreign capital flows: the experiences of Korea, Thailand, Malaysia and Indonesia", papers presented at the conference, *Global Capital Flows in Economic Development*.
- 15 This list of proposed global policy actions is by no means comprehensive, limited as it is principally to ideas raised at the conference, *Capital Flows in Economic Development*.
- 16 See *TDR, 1993*, Part Two, chap. I, sect. C.
- 17 An approach of this kind has been suggested as a solution of the problems of financial instability between the United States, Japan and EU by Toyoo Gyohten (in *Changing Fortunes ...*, pp. 309-310). The mechanics of external payments adjustment under such an approach were fleshed out by James Ingram in a series of publications of the 1960s and 1970s, which are digested in L.B. Yeager, *International Monetary Relations: Theory, History, and Policy*, 2nd edition (New York, etc.: Harper and Row, 1976), pp. 634-636.
- 18 Concerning this proposal see J. Williamson, "A New Facility for the IMF?", *International Monetary and Financial Issues for the 1990s, Research Papers for the Group of Twenty-Four*, Vol. VII (United Nations publication, Sales No. E.96.II.D.2).
- 19 Concerning elements of an improved system of governance for the international monetary system see E.V.K. Fitzgerald, "Intervention versus regulation: the role of the IMF in crisis prevention and management", paper presented at the conference, *Global Capital Flows in Economic Development*, reproduced as UNCTAD *Discussion Paper No. 115*.
- 20 B. Eichengreen, R. Portes *et al.*, *Crisis? What Crisis? Orderly Workouts for Sovereign Debtors* (London: Centre for Economic Policy Research, September 1995), chap. 5, which served as the basis for a presentation by Eichengreen at the conference, *Capital Flows in Economic Development*.
- 21 The reference of Eichengreen and Portes to suspension of debt-service payments on domestically issued short-term debt instruments of the Mexican Government in this context points to the blurring of traditional distinctions regarding foreign and internal debt that has resulted from the global integration of financial markets.
- 22 Concerning the work of the Basle Committee see, for example, *TDR 1992*, Part Two, annex I, and *TDR 1995*, Part Two, chap. III, sect. D.
- 23 For a discussion of this proposal see *TDR 1994*, Part Two, annex to chap. II, sect. D.5.
- 24 The proposal for a capital surcharge was consistent with the approach to the measurement of market risks due to positions in foreign exchange for the purpose of setting banks' capital requirements set out in Basle Committee on Banking Supervision, *The Supervisory*

- Treatment of Market Risks. Consultative Proposal by the Basle Committee on Banking Supervision* (Basle, April 1993). However, this proposal encountered strong criticism from banks (as described in *TDR 1995*, Part Two, chap. III, sect. D.3) and its approach was subsequently replaced by that set out in the Committee's *Amendment to the Capital Accord to Incorporate Market Risks* (Basle, January 1996).
- 25 The *locus classicus* of historical information on forward exchange markets is the work of Paul Einzig, in particular his two books, *The Theory of Forward Exchange* (London: Macmillan, 1937) and *A Dynamic Theory of Forward Exchange* (London: Macmillan, 1961).
- 26 C.R. Taylor, *Options and Currency Intervention* (London: Centre for the Study of Financial Innovation, October 1995). A put grants its buyer the right (without obligation) to sell an asset at a pre-set price (the strike price) to the seller or writer of the option.
- 27 Bank for International Settlements, *Macroeconomic and Monetary Policy Issues Raised by the Growth of Derivatives Markets*, Report prepared by a working group (chaired by Hervé Hannoun, Banque de France) established by the Euro-currency Standing Committee of the central banks of the Group of Ten countries (Basle, November 1994), pp. 49-50.
- 28 The delta of a derivative instrument is defined as the rate of change of its price with respect to the price of the underlying asset. A delta-neutral position is one in which an investor's gain from a change in the price of the underlying asset is offset by a corresponding loss from the change in the price of the derivative instrument (and vice versa). This concept can be generalized to an entire portfolio consisting of several assets and derivative instruments, and is the basis of the portfolio strategy denoted as delta hedging.
- 29 J. Tobin, "A proposal for international monetary reform", *The Eastern Economic Journal*, July/October 1978. In explication of his proposal at various times Tobin himself has put greater emphasis on the increased autonomy for national interest-rate policies that would result from the tax than on consequent reduction of exchange-rate volatility.
- 30 P.B. Kenen, "The Feasibility of Taxing Foreign-exchange Transactions", in M. Haq, I. Kaul and I. Grunberg (eds.), *The Tobin Tax: Coping with Financial Volatility* (Oxford, etc.: Oxford University Press, 1996).
- 31 See, for example, D. Felix, "Financial Globalization versus Free Trade: The Case for the Tobin Tax", *UNCTAD Discussion Paper No. 108*, sect. 3B and annex, which served as the basis for a presentation by the author at the conference, *Capital Flows in Economic Development*. Felix's assertion that the Tobin tax could be expected to reduce currency volatility is related to his belief that such volatility reflects the impact of speculation, and that speculation is carried out mainly through short-term transactions, which are those for which profitability would be most reduced by such a tax (*ibid.*, p. 39).
- 32 H.R. Richards, "Daylight overdraft fees and the Federal Reserve's payment system risk policy", *Federal Reserve Bulletin*, December 1995, p. 1071.
- 33 "The International Stock Exchange of Great Britain", *The Quality of Markets Report*, Winter 1987/1988 (at p. 333, as reprinted in R.W. Kamphuis, R.C. Kormendi, and J.W.H. Watson (eds.), *Black Monday and the Future of Financial Markets* (Homewood, Ill.: Dow Jones-Irwin, 1989).
- 34 J.C. Bogle, *Bogle on Mutual Funds. New Perspectives for the Intelligent Investor* (Burr Ridge, Ill.: Irwin Professional Publishing, 1994), pp. 193-194.
- 35 For a summary of such studies see W.F. Sharpe and G.J. Alexander, *Investments*, fourth edition (Englewood Cliffs, N.J.: Prentice-Hall, 1990), chap. 15, appendix A.2.2.
- 36 S.R. Umlauf, "Transaction taxes and the behaviour of the Swedish stock market", *Journal of Financial Economics*, vol. 33, No. 2, 1993.
- 37 C.M. Jones and P.J. Seguin, "Transactions costs and price volatility: evidence from commission deregulation" (mimeo.), 1996.
- 38 Initial margin consists of the sum in the form of money and securities posted by buyers and sellers of futures upon initiation of contracts. The sum is typically in the range of 5-15 per cent of the price specified in the contract, the precise proportion being related to the contract's volatility.
- 39 Currency swaps (which are to be distinguished from the foreign-exchange swaps mentioned above) involve the exchange of series of payments denominated in different currencies. Under currency swaps, unlike interest-rate swaps, which entail the exchange of payments denominated in the same currency, the payments typically include both interest and the underlying principal.
- 40 Netting refers to the practice of setting off payment obligations between two counterparties so that only a single net payment is made to settle the residual obligation.
- 41 J.E. Stiglitz, "Using tax policy to curb speculative short-term trading", *Journal of Financial Services Research*, 3:1989, p. 14.
- 42 For puts see footnote 26. A call grants the purchaser the right (but without obligation) to buy an asset at a pre-set price (the strike price) from its seller or writer.
- 43 R. Dornbusch, "Cross-border Payments Taxes and Alternative Capital Account Regimes", paper prepared for the Group of 24, 1995 (to be published in UNCTAD, *International Monetary and Financial Issues for the 1990s, Research Papers for the Group of Twenty-Four*, Vol. VIII).
- 44 Back-to-back transactions can be illustrated by the example of an arrangement under which one company lends in its national currency to another company or to another company's subsidiary in return for an offsetting loan in the national currency of the borrower for itself or one of its subsidiaries. Such an arrangement enables the avoidance of cross-border payments in connection with the loans.

- 45 Melitz has proposed a 100 per cent levy on foreign-exchange profits on positions held for less than one year (with no corresponding tax deduction for losses). J. Melitz, "Comment on the Tobin tax", presented at the conference, *Globalization of Markets: Theoretical and Empirical Challenges and Prospects for Advances in Research*, sponsored by CIDEI, Università di Roma "La Sapienza", 27-28 October 1994 (CIDEI Working Paper).
- 46 Under Buffet's proposal all gains from the sale of stocks or derivatives securities held for less than a year would be subject to the 100 per cent tax. The proposal could be expected to lead to a drastic reduction in the trading of options and index futures. Concerning Buffet's proposal see L. Lowenstein, *What's Wrong with Wall Street? Short-Term Gain and the Absentee Shareholder* (Reading, Mass., etc.: Addison-Wesley, 1988), pp. 86-87 and 200-208.
- 47 As in the case of the surcharge on banks' capital requirements (section F.7) and the Tobin tax (section F.9), countries wishing to attract the business of currency trading would have an incentive to remain outside the agreement.
- 48 Ernst & Young, *International Bank Taxation*, 2nd edition (London: Euromoney Publications, 1993).
- 49 See, for example, the discussion of the taxation of banks' profits in the chapters on Belgium (by J. Buelens and W. Vandenberghe) and France (by N. Dejean) in Ernst & Young, *op. cit.*
- 50 The following characterization of the foreign-exchange market in a book by a currency trader brings out well relevant features in this context: "... the foreign-exchange market was never incorporated or chartered to perform any specific functions. To this day it has no headquarters and no official bureaucracy. The centers of this market remain diversified, and to a large degree its operations are improvisational. Essentially, there are as many foreign-exchange operations as there are computer display terminals and telephone hookups." A.J. Krieger, *The Money Bazaar: Inside the Trillion-Dollar World of Currency Trading* (New York: Times Books, 1992), pp.210-211.
- 51 H. Kaufman, *Interest Rates, the Markets, and the New Financial World* (New York: Times Books, 1986).
- 52 For example, in the Ministerial Declaration adopted at the conclusion of the Uruguay Round, in December 1993, on the Contribution of the World Trade Organization to Achieving Greater Coherence in Global Economic Policymaking.