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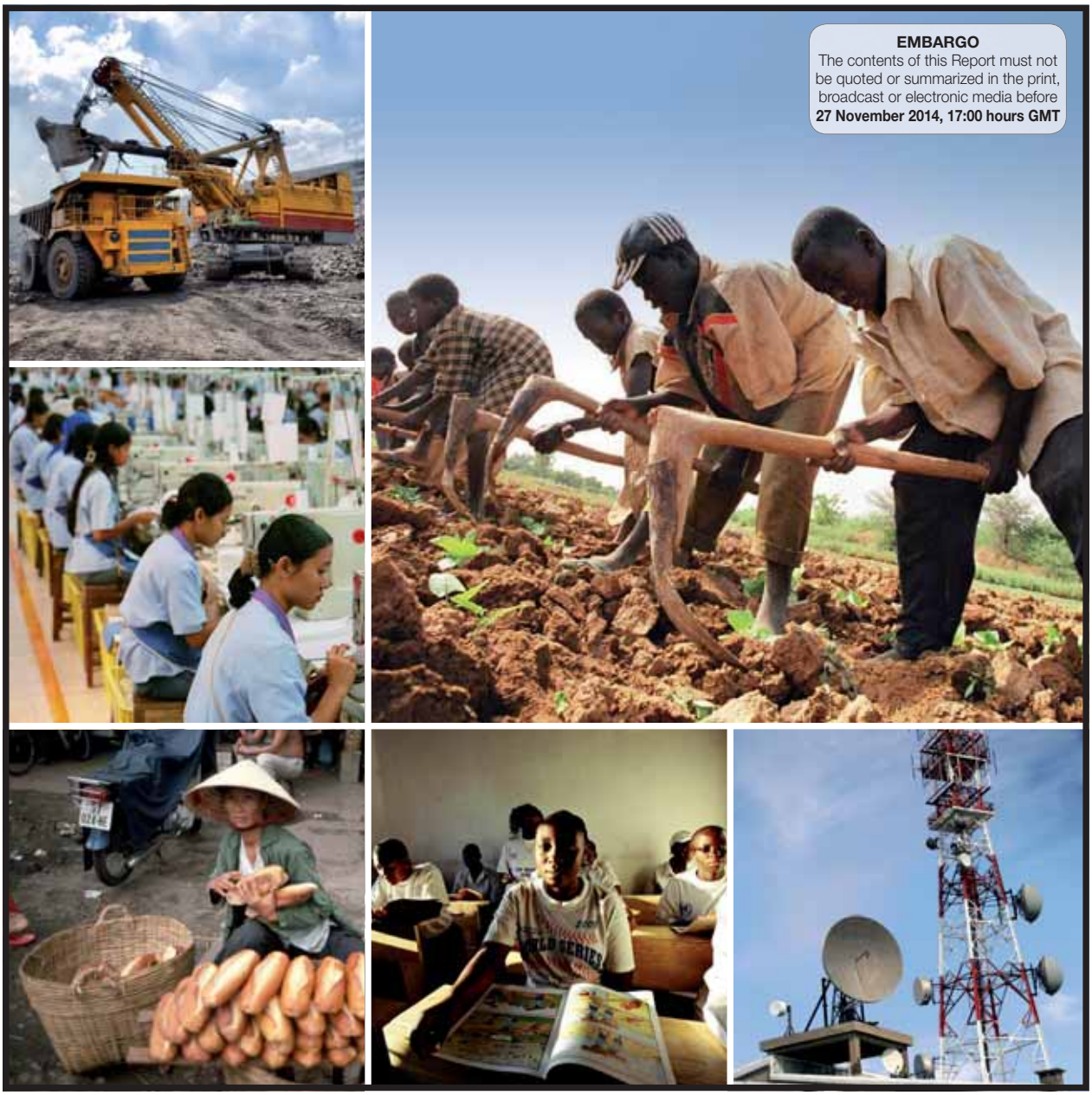
THE LEAST DEVELOPED COUNTRIES REPORT 2014

Growth with structural transformation: A post-2015 development agenda



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What are the least developed countries?

At present, there are 48 countries designated by the United Nations as "least developed countries" (LDCs). These are: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, the Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Sudan, Timor-Leste, Togo, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu, Yemen and Zambia.

The list of LDCs is reviewed every three years by the United Nations Economic and Social Council (ECOSOC), based on recommendations of the Committee for Development Policy (CDP). The following three criteria were used by the CDP in its most recent review of the list in March 2012:

(a) Per capita income, based on a three-year average estimate of the per capita gross national income (GNI), with a threshold of $992 for candidate countries for addition to the list, and a threshold of $1,190 for graduation from LDC status;

(b) Human assets, involving a composite index (the Human Assets Index) based on the following indicators: (i) nutrition (percentage of the population that is undernourished); (ii) health (child mortality ratio); (iii) school enrolment (gross secondary school enrolment ratio); and (iv) literacy (adult literacy ratio); and

(c) Economic vulnerability, involving a composite index (the Economic Vulnerability Index) based on the following indicators: (i) natural shocks (index of instability of agricultural production; and the percentage of victims of natural disasters); (ii) trade-related shocks (index of instability of exports of goods and services); (iii) physical exposure to shocks (proportion of population living in low-lying areas); (iv) economic exposure to shocks (share of agriculture, forestry and fisheries in gross domestic product (GDP); index of merchandise export concentration); (v) smallness (population in logarithm); and (vi) remoteness (index of remoteness).

In all three criteria, different thresholds are used for identifying countries to be added to the list of LDCs, and those that should graduate from the list. A country will qualify to be added to the list if it meets the thresholds on all three criteria and has a population no greater than 75 million. But a country that meets these criteria will only be added to the LDC list if its Government accepts this status. A country will normally qualify for graduation from LDC status if it has met graduation thresholds under at least two of the three criteria in at least two consecutive triennial reviews of the list. However, if the per capita GNI of an LDC has risen to a level at least double the graduation threshold, the country will be deemed eligible for graduation regardless of its performance under the other two criteria.

Four countries have graduated from LDC status so far: Botswana in December 1994, Cape Verde in December 2007, Maldives in January 2011, and Samoa in January 2014. In March 2009, the CDP recommended the graduation of Equatorial Guinea. This recommendation was accepted by ECOSOC in July 2009, and endorsed by the General Assembly through a resolution adopted in December 2013. The same resolution also stated that the General Assembly endorsed the CDP's 2012 recommendation to graduate Vanuatu from LDC status. Equatorial Guinea and Vanuatu are scheduled to be taken out of the list of LDCs in June 2017 and December 2017, respectively. The next official review of the list by relevant United Nations bodies will take place in 2015, with particular attention to the potential graduation of Angola and Kiribati.

After a recommendation to graduate a country from LDC status has been endorsed by ECOSOC and confirmed by the General Assembly, that country is normally granted a three-year grace period before graduation effectively takes place. This grace period, during which the country remains an LDC, is designed to enable the graduating State and its development and trading partners to agree on a "smooth transition" strategy, so that the loss of LDC status at the time of graduation does not disrupt the socio-economic progress of the country. A "smooth transition" measure generally implies extending, for a number of years after graduation, a concession the country was normally entitled to by virtue of its LDC status.

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An ad hoc expert group meeting on "Growth with Structural Transformation: Post-2015 Development Agenda for LDCs" was held in Geneva on 8 and 9 July 2014 to peer-review the Report and its specific inputs. It brought together specialists in the fields of structural transformation, development policies, industrial policy and financing for development. The participants in the meeting were: Rolph van der Hoeven (International Institute of Social Studies, University of Rotterdam), Akbar Noman (University of Columbia and Initiative for Policy Dialogue) and Codrina Rada (University of Utah), as well as the members of the LDC Report team and the following UNCTAD colleagues: Mussie Delelegn, Masataka Fujita, Axelle Giroud, Angel González-Sanz, Ricardo Gottschalk, Ahmad Mukhtar, Patrick Nwokedi Osakwe, Daniel Owoko, Amelia Santos-Paulino, Anida Yupari and James Zhan.

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Contents

Boxes

Charts

Tables

Box Table

Annex Tables

EXPLANATORY NOTES

The term "dollars" ($) refers to United States dollars unless otherwise stated. The term "billion" signifies 1,000 million.

Annual rates of growth and changes refer to compound rates. Exports are valued f.o.b. (free on board) and imports c.i.f. (cost, insurance, freight) unless otherwise specified.

Use of a dash (–) between dates representing years, e.g. 1981–1990, signifies the full period involved, including the initial and final years. An oblique stroke (/) between two years, e.g. 1991/92, signifies a fiscal or crop year.

The term "least developed country" (LDC) refers, throughout this report, to a country included in the United Nations list of least developed countries.

In the tables:

Two dots (..) indicate that the data are not available, or are not separately reported.

One dot (.) indicates that the data are not applicable.

A hyphen (-) indicates that the amount is nil or negligible.

Details and percentages do not necessarily add up to totals, because of rounding.

Abbreviations

ADBC	Agricultural Development Bank of China
AfDB	African Development Bank
AGRA	Alliance for a Green Revolution in Africa
Agribank	Vietnam Bank of Agriculture and Rural Development
AMC	asset management company
ART	antiretroviral therapy
ASEAN	Association of Southeast Asian Nations
BIDV	Bank for Investment and Development of Vietnam
BoP	balance of payments
CDB	China Development Bank
CDP	Committee for Development Policy
CFR	cost and freight
CONICYT	Chilean National Research Council
CORFO	Chilean Economic Development Agency
CPA	Country Programmable Aid
DAC	Development Assistance Committee
DCS	Development Certificate Scheme
DFID	Department for International Development
DFQF	duty-free and quota-free
ECLAC	Economic Commision for Latin America and Caribbean
ECOSOC	United Nations Economic and Social Council
EIA	Energy Information Administration
EIF	Enhanced Integrated Framework
EIU	The Economist Intelligence Unit
EPZ	export processing zone
ESSF	Economic and Social Stabilization Fund
EU	European Union
EVI	Economic Vulnerability Index
Exim	Export and Import Bank of China
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
FONDEF	Science and Technology Development Fund
FONTEC	National Productivity and Technological Development Fund
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GFCF	gross fixed capital formation
GNI	gross national income
GSP	Generalized System of Preferences
HAI	Human Assets Index
HANCI	Hunger and Nutrition Commitment Index
HDI	Human Development Index
HIPC	Heavily Indebted Poor Country
HIV/AIDS	human immunodeficiency virus infection / acquired immunodeficiency syndrome
HRS	household responsibility system

ICB	Industrial and Commercial Bank of Vietnam
ICF	Innovation for Competitiveness Fund
ICT	information and communication technology
ILO	International Labour Organization
IMF	International Monetary Fund
IDS	Institute for Development Studies
IPCC	Intergovernmental Panel on Climate Change
IPoA	Istanbul Programme of Action for the Least Developed Countries for the Decade 2011–2020
ISIC	International Standard Industrial Classification
ISM	international support measure
LDC	least developed country
MDG	Millennium Development Goal
MFA	Multi-Fibre Arrangement
MPI	Multidimensional Poverty Index
NIC	newly industrialized country
NIDA	New International Development Architecture
NPL	non-performing loan
ODA	official development assistance
ODC	other developing country
OECD	Organisation for Economic Co-operation and Development
OWG	Open Working Group
PBoC	People's Bank of China
PPP	purchasing power parity
R&D	research and development
QFII	qualified foreign institutional investors
SASAC	State-owned Assets Supervision and Administration Commission of the State Council
SBV	State Bank of Vietnam
SDG	Sustainable Development Goal
SEZ	special economic zone
SME	small and medium-sized enterprise
SOCB	State-owned commercial bank
SOE	State-owned enterprise
TRIPS	Trade-related Aspects of Intellectual Property Rights
TVE	township and village enterprises
UNCTAD	United Nations Conference on Trade and Development
UN/DESA	United Nations Department of Economic and Social Affairs
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNESCO	United Nations Educational, Scientific and Cultural Organization
URR	unremunerated reserve requirement
VAT	value added tax
VCB	Bank for Foreign Trade of Vietnam
WDI	World Development Indicators
WHO	World Health Organization
WTO	World Trade Organization

Classifications used in this Report

Least developed countries

Geographical/structural classification

Unless otherwise specified, in this Report the least developed countries (LDCs) are classified according to a combination of geographical and structural criteria. Therefore, the small island LDCs which geographically are in Africa or Asia are grouped together with the Pacific islands, due to their structural similarities. Haiti and Madagascar, which are regarded as large island States, are grouped together with the African LDCs. South Sudan declared its independence on 9 July 2011, and became both an independent state and a Member of the United Nations on 14 July 2011. Therefore, from 2011, data for South Sudan and Sudan (officially the Republic of the Sudan), where available, are shown under the appropriate country name. For periods prior to the independence of South Sudan in 2011, data for Sudan (former) include those for South Sudan unless otherwise indicated. The resulting groups are as follows:

African LDCs and Haiti: Angola, Benin, Burkina Faso, Burundi, Central African Republic, Chad, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Niger, Rwanda, Senegal, Sierra Leone, Somalia, Sudan (former) or South Sudan and Sudan, Togo, Uganda, United Republic of Tanzania, Zambia.

Asian LDCs: Afghanistan, Bangladesh, Bhutan, Cambodia, Lao People's Democratic Republic, Myanmar, Nepal, Yemen.

Island LDCs: Comoros, Kiribati, Sao Tome and Principe, Solomon Islands, Timor-Leste, Tuvalu, Vanuatu.

Export specialization

UNCTAD has classified the LDCs into six export specialization categories, according to which type of exports accounted for at least 45 per cent of total exports of goods and services in 2010–2012. The group composition is as follows:

Food and agricultural exporters: Guinea-Bissau, Malawi, Solomon Islands, Somalia.

Fuel exporters: Angola, Chad, Equatorial Guinea, South Sudan, Sudan, Yemen.

Manufactures exporters: Bangladesh, Bhutan, Cambodia, Haiti, Lesotho.

Mineral exporters: Democratic Republic of the Congo, Eritrea, Guinea, Mali, Mauritania, Mozambique, Zambia.

Mixed exporters: Benin, Burkina Faso, Central African Republic, Kiribati, Lao People's Democratic Republic, Myanmar, Niger, Senegal, Sierra Leone, Togo, United Republic of Tanzania.

Services exporters: Afghanistan, Burundi, Comoros, Djibouti, Ethiopia, Gambia, Liberia, Madagascar, Nepal, Rwanda, Sao Tome and Principe, Timor-Leste, Tuvalu, Vanuatu, Uganda.

Other groups of countries and territories

Developed countries: Andorra, Austria, Australia, Belgium, Bulgaria, Bermuda, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Faeroe Islands, Finland, France, Germany, Gibraltar, Greece, Greenland, Holy See, Hungary, Iceland, Ireland, Italy, Israel, Japan, Latvia, Lithuania, Luxembourg, Malta, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Saint Pierre and Miquelon, San Marino, Slovakia, Slovenia, Spain, Sweden, Switzerland, United Kingdom, United States.

Other developing countries (ODCs): All developing countries (as classified by the United Nations) which are not LDCs.

Transition economy countries: Albania, Armenia, Azerbaijan, Belarus, Bosnia and Herzegovina, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Montenegro, Russian Federation, Serbia, Tajikistan, The former Yugoslav Republic of Macedonia, Turkmenistan, Ukraine, Uzbekistan.

Major petroleum exporters: Algeria, Angola, Iran, Iraq, Kuwait, Libya, Nigeria, Oman, Qatar, Saudi Arabia, Venezuela (Bolivarian Rep. of), United Arab Emirates.

Newly industrialized countries, first tier: Hong Kong (Special Administrative Region of China), Republic of Korea, Singapore, Taiwan Province of China.

Newly industrialized countries, second tier: Indonesia, Malaysia, Philippines, Thailand.

Product classification

Goods: The figures provided below are the codes of the Standard International Trade Classification (SITC), revision 3.

Primary commodities: section 0, 1, 2, 3, 4, division 68 and group 667and 971.

Agriculture and food: section 0, 1, 2 and 4 excluding divisions 27 and 28.

Minerals: divisions 27, 28 and 68, and groups 667 and 971.

Fuels: section 3.

Manufactures: section 5 to 8 excluding division 68 and group 667.

Labour-intensive and resource-intensive manufactures: divisions 61, 63, 64, 65, 82, 83, 84, 85, 66 excluding group 667.

Low-skill and technology-intensive manufactures: divisions 67, 69 and groups 785, 786, 791, 793, 895, 899

Medium-skill and technology-intensive manufactures: divisions 62, 71, 72, 73, 74, 781 to 784, 81, 893,894, 77 excl. groups 776.

High-skill and technology-intensive manufactures: section 5, divisions 75, 76, 87, 88 and groups 776, 792, 891, 892, 896, 897.

Section 9 (Commodities and transactions not classified elsewhere in the SITC) has been included only in the total export of goods and services, but not in the goods classification above, except for group 971 (Gold, non-monetary (excluding gold ores and concentrates), which has been included in Minerals.

Services: Total services cover the following main categories: transport, travel, communications, construction, insurance, financial services, computer and information services, royalties and license fees, other business services, personal, cultural, recreational and government services.

OVERVIEW

Introduction

At the beginning of the millennium the least developed countries (LDCs) enjoyed the strongest and longest growth rates since the 1970s, benefiting from sustained global growth, surging commodity prices and buoyant capital flows. Between 2000 and 2008, the average annual growth of the group's real gross domestic product (GDP) exceeded 7 per cent, raising hopes that some LDCs may be able to graduate from this category within the present decade. However, since the outbreak of the global financial crisis in 2008 and the drastic change in external conditions, LDCs have experienced a slowdown of economic activity. As a result, their economic growth has been much weaker during the past five years and well below the target rate of 7 per cent annual growth established in the Istanbul Programme of Action (IPoA), and considered necessary for attaining the Millennium Development Goals (MDGs).

Further progress in human development can only be made by reigniting sustained economic growth in the LDCs and accelerating the structural transformation of their economies. This means changing the composition of output and employment towards those economic sectors and activities with higher productivity and value added. Indeed, it is only if efficiency gains and changes in the structure of their economies happen concomitantly, that they will be able to achieve economic progress on a sustainable basis, and improve the living conditions of the most vulnerable people. History has shown that sustained economic growth and development are achieved by those countries that are able to effectively transform their productive activities from low to high productivity, and diversify their production and exports.

The Least Developed Countries Report 2014 examines the linkages between structural transformation, economic growth and human development. It argues that LDCs cannot, and should not, focus only on aggregate growth; they also need to pay attention to the type of growth pattern and its main drivers. The Report also considers what LDCs can do to transform their economies in order to foster economic growth and achieve the MDGs and the Sustainable Development Goals (SDGs) which are planned to succeed them, and what the international community can do to support LDCs in their structural transformation and in their efforts to achieve the SDGs.

Recent trends and outlook for the LDCs

With the recovery of the global economy remaining slow and uneven, the LDCs faced a challenging external environment in 2013. Sluggish global economic growth, which translated into weaker international demand for commodities and a consequent decline in their prices, adversely affected the economic growth and export performance of several LDCs. Inflows of foreign direct investment (FDI) reached a record high and remittance inflows continued unabated, but official development assistance (ODA) started to show signs of stagnation. Most notably, the external environment in 2013 differed considerably from the highly favourable one of 2002–2008 when LDCs displayed an impressive economic performance.

Despite the less favourable external environment, the group of LDC economies attained an average real GDP growth rate of 5.6 per cent in 2013. This is higher than the average growth rates of developed countries (1.2 per cent) and all developing countries (4.6 per cent), but below the upward revised rate of 2012 (7.5 per cent) and the average rate of more than 7 per cent reached during the boom period of 2002–2008. Moreover, their much faster demographic expansion offset comparatively faster GDP growth. Thus, real GDP per capita in LDCs as a group increased by 2.8 per cent in 2013, which means that many LDCs' per capita income growth was higher than their population growth by only a small margin, and will therefore have had only a limited impact on living standards in a context of widespread poverty.

While LDCs in all regions attained similar growth rates (hovering at around 6 per cent), their economic performance based on their export specialization showed mixed trends. In 2013, exporters of food and agricultural products as well as exporters of minerals saw improvements in economic performance. Conversely, growth in fuel exporters, mixed exporters, services exporters and exporters of manufactures slowed down, albeit at different rates. Fuel exporters' growth rate in 2013 (4.7 per cent) was substantially lower than that of the previous year (10.3 per cent). This slowdown was caused by a notable decline in fuel revenues in Angola, Chad and Equatorial Guinea, where the fuel sector was adversely affected not only by lower fuel production but also by lower international prices for crude oil.

In 2013, the current account and merchandise trade of the LDCs as a group were weaker. Their current account deficit continued to rise, reaching a historic peak of $40 billion in 2013, and their merchandise trade deficit also widened, escalating by 29 per cent to $21.1 billion. Still, this was significantly smaller than the 338 per cent increase in the trade deficit in 2012, when exports declined in line with the worldwide deceleration of trade in goods. However, there were notable differences in the merchandise trade balance of the different LDC geographical groups. The sharp shrinking of the merchandise trade surplus of African LDCs and Haiti contributed largely to the widening of the LDCs' negative balance. Island LDCs' merchandise trade deficit increased by 22 per cent, to reach a historic $1.6 billion in 2013. Asian LDCs, on the other hand, reduced their merchandise trade deficit by 3.2 per cent, to $23.4 billion, largely thanks to increases in the exports of labour-intensive manufactures from Bangladesh and Cambodia.

LDCs' capital inflows increased, but their external resource gap continued to widen in 2012. The increase in capital inflows was driven by higher private inflows in the form of both remittances and FDI, whereas ODA flows, the largest source of external financing for LDCs, showed signs of stagnation. For two consecutive years (2011 and 2012), the average annual growth rate of ODA flows was only about 1 per cent, partly due to a broader set of austerity measures adopted by the developed-country donors in recent years. In addition, lower savings rates in LDCs led to a widening of the external resource gap, which increased their need for external finance — a long-standing requirement of LDCs, which continues to play a vital role in financing investment.

Against this background, the outlook for the LDCs in the short and medium term remains uncertain. While global output is expected to strengthen moderately in the medium term, uncertainty about the pace and the strength of the recovery persists. A fragile and uncertain global recovery could hinder LDCs' economic performance due to weak international demand and lower commodity prices. Adjusting to a changing external environment has always been a key challenge for these economies, but this is now exacerbated by a subdued world economy and prevailing uncertainties.

The less favourable external environment, coupled with LDCs' weaker growth performance, suggests that achieving the MDGs, or the SDGs that are planned to succeed them, is likely to be extremely challenging. Indeed, a more strategic approach will be necessary to bring about the structural transformation necessary for sustained and inclusive economic growth.

LDCs' progress towards achieving the MDGs

The MDGs have embodied the development objectives of the global community since 2000. They focus on the reduction of extreme poverty and hunger, improvements in basic standards of human development (in terms of education, gender equity, health, and access to water and sanitation), environmental sustainability and raising the level of international support to development. The end of the MDG cycle in 2015 therefore offers an important opportunity to analyse the progress of the LDCs towards achieving the MDGs, and to assess the effectiveness of the policies implemented so far. It is crucial to learn major lessons from this experience so as to inform future policymaking and increase the chances of achieving the much more ambitious SDGs associated with the post-2015 development agenda, which will shape the development debate over the next 15 years.

MDG 1 aims at halving extreme poverty and hunger. On average, LDCs reduced poverty (based on the $1.25-a-day poverty line) from 65 per cent of the population in 1990 to 45 per cent in 2010. In percentage points, this is as fast as the reduction in other developing countries (ODCs) — from 40 per cent to 20 per cent. However, it is substantially slower in relative terms (less than one third compared with half), and insufficient to halve poverty by 2015. The Asian LDCs have progressed much faster than the African ones and Haiti, and are broadly on course to halve poverty. The general failure of non-Asian LDCs to achieve MDG 1 largely reflects their inability to translate historically rapid economic growth into corresponding increases in decent employment and to advance the process of structural transformation.

The average prevalence of undernourishment in LDCs has shrunk at a slower rate than poverty, from 36 per cent of the population in 1990–1995 to 29 per cent in 2010–2012, a reduction of about a quarter. This is slightly smaller, proportionally, than the average for ODCs, and substantially less than what is needed to halve hunger by 2015. The level of undernourishment in African LDCs and Haiti is higher than in Asian LDCs, and has also fallen more slowly. However, even the latter are not on course to halve undernourishment by 2030.

MDG 2 refers to universal primary education, and aims to "ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling". The average primary enrolment ratio for LDCs has increased by half since 1990, rising from 50 per cent to 75 per cent. There has been a strong increase in net primary enrolment both in African LDCs and Haiti (from 46 per cent to 71 per cent of the population at the relevant age group) and in Asian LDCs (from 60 per cent to 94 per cent). In terms of gender disparities, while the gender balance at all levels of education has improved considerably in LDCs since 1990, the 2005 targets were not met, on average, and the gender gap remains very wide at the secondary and, especially, the tertiary level.

The LDCs have made substantial progress with respect to child survival and maternal health (MDGs 4 and 5). The average under-five mortality rate has fallen by almost half, from 156 per 1,000 live births in 1990–1995 to 83 per 1,000 in 2011–2012, with a somewhat faster rate of improvement in Asian than in African LDCs and Haiti, and the island LDCs. The average maternal mortality ratio per 100,000 live births has shrunk by nearly half in LDCs as a group, from 792 in 1990 to 429 in 2010, but it falls short of the rate of reduction required for achieving the goal. These improvements partly reflect better maternal and child nutrition, as well as more effective vaccination and maternal and child health programmes.

MDG 6 envisages reversing the spread of the human immunodeficiency virus infection/acquired immunodeficiency syndrome (HIV/AIDS) by 2015, and ensuring access to antiretroviral therapy (ART) for all those who need it by 2010. There has been a noticeable decline in HIV/AIDS prevalence in LDCs since 2000, as in the developing world as a whole, reflecting improvements in access to treatment, nutrition, medical practices and condom use. However, despite improvements in recent years, the goal of universal access to ART is far from being achieved, even beyond the target date of 2010. The deficiencies of LDCs' health systems have been sharply highlighted by the spread of the Ebola virus in West Africa in 2014, which could jeopardize, or even reverse, the achievements of several LDCs in the region in terms of human and economic development.

Similarly, progress in access to safe drinking water and basic sanitation (MDG 7) is well below what is needed to meet the goals. Average access to an improved water source increased in LDCs from 54 per cent of the population in 1990–1995 to 69 per cent in 2011–2012. However, this again falls short of the rate of improvement required to halve the proportion of the population that lacks access by 2015, which would require an increase to 81 per cent. Still, Asian LDCs have performed substantially better than the average, and are close to achieving the goal. Average access to sanitation increased from 22 per cent in 1990 to 36 per cent in 2012, less than half the average for ODCs (76 per cent). Again, the Asian LDCs have performed better than other LDCs, nearly tripling access, but even they are likely to fall short of the goal.

Overall, by any historical standard, the achievements of the LDCs since 1990 in the areas highlighted by the MDGs have been quite remarkable. Nevertheless, only one LDC (the Lao People's Democratic Republic) is on track to meet all of the seven MDG targets assessed in *The Least Developed Countries Report 2014*. This is partly a reflection of limited progress on MDG 8, which seeks to create a "global partnership for development". Major donors have fallen short of their commitments on ODA; LDCs' debt problems have not been dealt with comprehensively, leaving several in, or at risk of, debt distress; LDCs' trade preferences relative to ODCs have been seriously eroded; and the global economic and financial architecture has proved unable to prevent major global financial, food and fuel crises since the turn of the century.

There are significant differences among the various LDC groups in their degrees of achievement of the MDGs. While several Asian LDCs are on track to meet most of the goals, progress has been much slower in the majority of African LDCs and Haiti as well as the island LDCs, which means they will not meet most of the MDGs. This largely mirrors relative performance in structural transformation. Typically, Asian LDCs have succeeded in changing the production structures of their economies to a large extent, transferring labour to higher productivity activities over the past 20 years. Other LDCs, by contrast, have made little progress in this regard, and in some cases there have even been setbacks. Thus, the varying degrees of success in attaining MDGs across LDCs seem to be associated with their different economic dynamics over the past two decades. To gain a better understanding of the reasons why some LDCs have performed better vis-à-vis the MDGs, it is necessary to analyse the patterns of structural transformation and labour productivity growth in LDCs, bearing in mind the necessary synergies between economic and human development.

From MDGs to SDGs: Reconnecting economic and human development

The year 2015 marks a turning point for development policies: from a period when development efforts focused on the MDGs, to a post-2015 development agenda which will be encapsulated in a broader – and much more ambitious – set of Sustainable Development Goals (SDGs) to be achieved by 2030.

Human development and economic development are inextricably linked. Human development, broadly defined, is the primary objective of economic development. At the same time, economic development is an essential means to human development. Thus economic and human development can most effectively be met by pursuing both sets of goals together through policies that strike a balance between the two, and which take full account of their direct and indirect effects on both dimensions. This was a major failing of economic policies that focused mainly on controlling inflation and reducing external imbalances in the 1980s and 1990s. Equally, however, pursuing human development goals without addressing the underlying economic causes will at best result in progress that is unsustainable, and may even be counterproductive in the long term. Poverty, undernourishment, poor health and low educational attainment are in fact part of a vicious circle which plays a key role in preventing LDCs from progressing socially and economically. All these social problems pose serious obstacles to productive investment, and ultimately hinder economic development. Poor economic performance in turn limits the capacity for poverty reduction and the resources needed for promoting health and education, thus creating a pernicious vicious circle.

Breaking this vicious circle, and turning it into a virtuous one, requires sustained increases in labour productivity, which, coupled with job creation, is essential for long-run economic growth. This allows a continuous rise in real labour incomes necessary for poverty reduction and human development. The only way to achieve this is through structural transformation, whereby resources are shifted from less to more productive activities and the economy is able to generate continually new dynamic activities characterized by higher productivity. Such transformation is essential in the context of the planned SDGs. Only a few LDCs have undergone any significant economic transformation since 1990, and it is largely this failure which underlies their generally weak performance in meeting the MDG targets.

Given that the proposed SDGs are even more ambitious than the MDGs, their attainment will be all the more challenging. This is compounded by the present uncertain external environment, with the global economy continuing to struggle in the wake of the financial crisis. Therefore, meeting the new goals will require nothing short of a revolution in LDCs' economic performance. More specifically, it will necessitate their structural transformation on a scale unprecedented for these countries.

Achieving the SDGs will also require considerable increases in the incomes of the poorest. In 2010, the average income of the poorest 5 per cent of the population in LDCs as a whole was about $0.25 per day. Raising this average to $1.25 per day by 2030 would require a fivefold increase; that is, an average annual per capita income growth rate of 8.3 per cent. This is more than three times the rate achieved even in the favourable economic climate of 2002–2010 (2.7 per cent per year), and 20 times that achieved over the previous two decades (0.4 per cent per year). Even this would still leave some 2–3 per cent of the population dependent on income transfers to escape extreme poverty.

In some LDCs, the incomes of the poorest segments of the population are much higher, and the challenge may be more manageable. Bhutan has already reduced the proportion of those living in poverty (at the $1.25-a-day line) to below 5 per cent. Five other LDCs (Cambodia, Djibouti, Sao Tome and Principe, Sudan and Yemen) had poverty rates of between 13 and 20 per cent. At the other end of the scale, however, five LDCs (Burundi, the Democratic Republic of the Congo, Liberia, Madagascar and Zambia) had poverty rates between 75 per cent and 85 per cent in 2010. Overall, the average income of the poorest 5 per cent in these countries is just $0.13 per day, requiring an annual growth rate of 15 per cent to reach $1.25 per day by 2030. Thus they face a formidable challenge.

What is needed is not merely to increase overall productivity, but also to create productive and remunerative employment (and self-employment) opportunities for the whole workforce, with sufficiently high productivity to sustain incomes above the poverty line. This means increasing demand faster than the increase in labour productivity. If labour productivity is increased without (domestic and foreign) demand growing at least as fast, either employment will decline or workers will be pushed out of the sectors of rising productivity into the lower productivity "refuge" sectors of informality and family agriculture. Either way, poverty will rise instead of falling.

Neither the neoliberal market approach nor the more interventionist East Asian model based on export-oriented manufacturing seems likely to achieve employment for all with high enough productivity. In both Latin America and sub-Saharan Africa, the neoliberal model increased efficiency in manufacturing primarily by driving relatively

inefficient producers out of business, while those that survived shed labour. While this increased labour productivity in manufacturing, total employment in the sector fell. The result was a process of reverse structural transformation in which labour moved from the manufacturing sector into lower productivity sectors, notably the informal sector.

The East Asian model is more conducive to structural transformation to the extent that it promotes employment in manufacturing. However, this alone is clearly insufficient to eradicate poverty in 15 years in most LDCs. The peak level of employment in manufacturing has declined in successive generations of industrializing countries, from above 30 per cent in Germany and the United Kingdom to the mid-teens in several Latin American and Asian economies which have begun a process of premature deindustrialization. This falls far short of the increase in higher wage employment required for poverty eradication in most LDCs.

This analysis suggests that employment in manufacturing alone is not enough to generate sufficient well-paid jobs to achieve poverty eradication; boosting productivity and incomes in other sectors, especially agriculture and services, will also be essential. Agriculture, in particular, is critical for reducing poverty in LDCs. The majority of people in LDCs live in rural areas, with a handful of exceptions (Djibouti, Sao Tome and Principe, Angola, the Gambia, Haiti and Tuvalu, where 36–49 per cent live in rural areas). In 20 countries – including three of the five exporters of manufactures – the share of the rural population is 70–90 per cent. Across LDCs in all developing regions, poverty also tends to be greater in rural areas than in urban areas, even allowing for differences in living costs, although this tendency appears to have diminished over time.

In the great majority of LDCs, the additional income required for poverty eradication is thus needed the most by people in rural areas. Even with unlimited employment growth in urban areas, the potential for poverty eradication through industrial development alone would be limited by social and environmental considerations concerning the pace of urbanization. Moreover, the potential to increase agricultural productivity without a major reduction in employment is constrained by the substantial labour surplus in small-scale agriculture in most LDCs. This suggests that the diversification of rural economies into non-agricultural activities and the generation of non-farm income sources in rural areas will need to be key objectives. Even in established exporters of manufactured goods, this is likely to be a necessary adjunct to further industrialization if poverty is to be eradicated by 2030.

Structural transformation and labour productivity in the LDCs

Economic development is a long and challenging process involving progressive increases in labour productivity, along with large-scale changes in the structure of the economy, as new and leading sectors emerge as drivers of employment creation and/or technological upgrading. In the short run, either of these mechanisms, even in isolation, may drive growth. However, economic development can be sustainable in the medium to long term only if productivity improvements and changes in the structure of the economy advance hand in hand.

Increases in labour productivity are necessary to sustain the income and wage growth required to pursue the desired development goals. Labour productivity growth also creates the conditions for structural transformation to take place by increasing value addition asymmetrically across sectors. Structural transformation, in turn, by transferring resources towards the more productive sectors, contributes to overall productivity growth. Without structural transformation, therefore, a significant proportion of potential productivity gains would remain unexploited. Equally, without the trigger of labour productivity dynamics, structural transformation would be seriously hindered.

Output per capita over the period 1991–2012 grew at an average annual rate of only 2.6 per cent in the LDCs, though with considerable variations among them. Mixed exporters and exporters of manufactures (the latter dominated by Asian LDCs) performed better than the average, growing at an average annual rate of 3.3 per cent. The second set of groups which grew more slowly — at annual rates between 1.9 per cent and 2.7 per cent — consists of fuel and services exporters. Finally, in the exporters of minerals, and food and agricultural products, output per capita was either stagnant or declined over the period. All economies in these two groups of exporters are African, with the exception of the Solomon Islands. Overall, the economic performance of the African LDCs — as reflected in their output per capita — lagged behind the LDCs in the other regions.

Measuring structural transformation by the changes in the sectoral shares of employment shows that the mostly Asian producers of manufactured goods recorded the fastest rate of transformation, with a 16.2 percentage point decline in the agricultural sector's share of employment. This group of LDCs was followed by services exporters and mixed exporters, where the agriculture share of employment declined by 10 percentage points and 9 percentage

points respectively. At the opposite end were exporters of food and agricultural goods, and of minerals — both dominated by African LDCs — where there has been little or no structural transformation of employment.

Variations in growth rates of labour productivity across groups are closely associated with the dynamics of their economic structures. African LDCs and Haiti have trailed the other LDC regional groups, with labour productivity expanding at an average annual rate of 1.6 per cent during the period 1991–2012. This was half the annual rate of growth recorded by the Asian LDCs. A different pattern emerges for the island LDCs, where labour productivity declined in relative terms until 2003, when the trend reversed sharply upwards. The impressive recent economic performance in this LDC group has been largely due to an increase in the exploitation of oil and gas resources in Timor-Leste, which pushed the group's average annual growth rate to 5.8 per cent.

The challenges faced by the LDCs to raise labour productivity become even more evident when they are grouped according to their export specialization. The best performers have been exporters of manufactured and mixed goods. Although they began the 1990s with a decline in labour productivity relative to the ODCs, they have managed to stabilize the situation since then, and to achieve an average annual growth rate in output per worker of 2.9 per cent. The LDC performers that have lagged furthest behind are exporters of food and agricultural products, and mineral exporters. Labour productivity in the former group declined in absolute terms at an average annual rate of about 0.8 per cent during the period 1991–2012, and it stagnated in mineral exporters.

Overall, rapidly growing LDCs have experienced both significant labour productivity growth and major structural changes in employment shares across all sectors: agriculture, industry and services. During the period 1991–2012, countries with an average annual rate of growth of 3 per cent or more experienced faster productivity growth within sectors and more profound changes in sectoral shares of employment. These were mainly exporters of manufactured goods. Moreover, among LDCs, only this group surpassed ODCs' record on the share of aggregate productivity gains driven by the sectoral reallocation of labour.

Structural change and sustained increases in labour productivity are therefore closely related to income growth, which in turn is required to pursue development goals. This double nexus partly explains why there is a strong and positive association between the degree of completion of MDGs and the extent of structural transformation across LDC economies. However, structural transformation can also facilitate attainment of the MDGs independently of its impact on per capita income. For a given level of income growth, higher wages related to increases in productivity might facilitate poverty eradication and progress on the remaining MDGs. Likewise, a shift of resources from the natural resources sector to manufacturing, for example, is likely to lead to the creation of new jobs even if total production remains unchanged. Accordingly, The Least Developed Countries Report 2014 finds that, for several MDGs, the correlation between growth and the MDG completion rate was much higher in those countries that accomplished relatively faster structural transformation than in the economies that lagged behind in such transformation. In the latter case, the impact of income growth on human development was close to zero.

Only in a few LDCs has economic growth been associated with structural transformation, sustained increases in labour productivity and decisive progress towards the MDGs. Most LDCs experienced strong economic growth in the 2000s, but little structural transformation. This divergence warrants closer examination, including investigating the experience of those non-LDC developing countries that have been even more successful in creating a virtuous circle between structural transformation, productivity growth and human development in recent decades. This has enabled them to set in motion a lasting development process, and thereby perform well against the MDGs. The policies they have adopted may provide important lessons for the LDCs as they strive to meet the new development goals in the post-2015 context. It is of crucial importance for LDCs to develop a policy framework that is able to foster labour productivity growth and facilitate the progressive shift of resources towards more productive sectors in their development process.

Structural transformation, labour productivity and development policies in selected non-LDC developing countries

The Least Developed Countries Report 2014 considers what lessons LDCs may be able to draw from the growth experiences of four successful non-LDC developing countries: Chile, China, Mauritius and Viet Nam. These countries have been selected partly because of their success in achieving most of the MDGs within a short period of time as a result of their rapid economic and social development, and partly because they are representative of a wide range of

conditions and circumstances, including size, geographical location, politics, history and demographics. The range of their GDP per capita at the initial stages of their respective economic reforms is similar to the range of GDP per capita in LDCs in 2013. They are from three developing regions, range in population from 1.3 million in Mauritius to 1.3 billion in China, and have very different political, cultural and historical backgrounds and social structures. Their production structures also vary widely: China has established itself as the manufacturing workshop of the world, Chile's economy remains strongly dependent on resource-based commodities, while Mauritius and Viet Nam have a mix of the two.

Lessons from past development experiences of countries must be interpreted with considerable caution when drawing from them to inform strategies in other countries. Grasping dynamic country experiences involves analytical risks, and can be prone to reinterpretation over time due to an imperfect understanding of the drivers of growth and development. However, it would be equally imprudent to assume that no insights or lessons can be gleaned from successful cases. Broad lessons from experiences relate primarily to the "demonstration effect" of the ways in which structural transformation can be achieved, and the broad types of policy instruments and strategies, institutional arrangements and innovations that contribute to this process. The general contours of structural transformation are easy enough to identify, ex post, but the finer details and specific policy prescriptions must necessarily be firmly based on ex ante circumstances of individual countries.

Above all, structural transformation requires policies that encourage investment in a range of higher productivity sectors and activities and in increasing the productivity of existing production, both of which involve different types of innovation. While there is a wide range of policy instruments for these purposes, based on the four country cases, three broad and interrelated areas of domestic policy are highlighted, which are critical for sustaining the economic transformation process. The first policy area is resource mobilization by both the public and private sectors. This refers to instruments to raise and mobilize the resources needed for investment in productive activities, including the economic and social infrastructure. The financial and banking systems are crucial in determining how resources are mobilized and allocated, and they can alter the room for manoeuvre in the second policy area. The second area concerns industrial and sectoral policies, through which policymakers promote the development of specific economic activities or economic agents (or a group thereof) based on national development priorities. They encompass both horizontal policies (applied across all sectors, e.g. to address economy-wide market imperfections and externalities) and vertical policies (applied only to selective sectors or activities), although there is a fair degree of overlap and complementarity between the two.

Third, successful structural transformation requires appropriate macroeconomic policies. While macroeconomic policies are typically seen as focusing on the short-term management of aggregate variables, they also have long-term impacts that may be critical to successful structural transformation. Of particular importance are their effects on public investment, the availability and cost of credit and the real exchange rate, as well as domestic demand.

Crucially, examining the respective policy configurations of these four country cases at specific junctures in time highlights the linkages between greater coherence among these three policy areas and more dynamic forms of structural economic transformation. In each of these countries, in order to better reflect domestic development interests, concerns and objectives, policymakers often made selective adaptations to policy instruments and institutional arrangements which did not conform to conventional economic policy advice provided at the time. These country experiences thus reveal (albeit to varying degrees) the attentiveness of national authorities not so much to best practices in policymaking, as to best policy matches with institutional capabilities.

Chile is often held up as a model of adherence to market principles, but in reality its market reforms reflect a more pragmatic and flexible approach, especially in the late 1980s and the 1990s. On the financial side, Chile embarked upon a process of financial liberalization in the 1970s, eventually completing the process of capital account liberalization by 2001. At the same time, however, the BancoEstado (a state-owned commercial bank) was, and remains, a key player in Chile's financial sector, providing an array of financial services to small and medium-sized enterprises (SMEs) and small savers. The Government also created two specialized programmes to fund collaboration between local firms and research organizations in order to catalyse learning and innovation within domestic industry and foster structural transformation.

Chile has managed to gradually diversify its economy from copper production to other parts of the mining value chain, and has also developed value-added natural-resource-related activities such as the manufacture of food products, forestry and wooden furniture, pulp and paper, and chemicals. The pattern and degree of government policy instruments, institutions and incentives has differed according to initial industry-specific conditions. From the 1980s to the early and mid-2000s, Chile's industrial policy approach prioritized "horizontal" (or "functional") policies,

which sought to overcome specific market failures across sectors that built upon existing comparative advantages. In the mid-2000s, however, the Chilean authorities recognized the necessity of also adopting "vertical" policies that involved explicit strategic interventions and investments in selective sectors and firms.

Another important aspect of Chile's export diversification efforts was the role played by the Government in negotiating bilateral and regional free trade agreements (FTAs) with major importers of Chile's goods and services. In most cases, the country successfully managed to overcome potential commercial restrictions against its exports while at the same time maintaining the policy space to pursue its industrial policy strategy, in particular, safeguarding its ability to use macroprudential policies and capital controls.

The coherence of macroeconomic policies, particularly in the 1990s, was also crucial to the overall development strategy. On the one hand, Chile sought to remain open to FDI, but discouraged short-term and speculative inflows. On the other hand, policymakers intervened in foreign exchange markets to manage the exchange rate, while offsetting foreign exchange reserve accumulation by sterilizing their effects on money supply through the issuance of government bonds. This set of policies helped to protect and reinforce its development strategy, which focused on export growth and diversification. However, by the late 1990s, the policy configuration remained the same and was not intensified to counteract a surge in capital inflows at that time, which ultimately rendered the policy mix less effective.

China's transition from a planned economy represents a traditional approach characterized by a gradual and strategic pattern of integration into the global economy. At its heart, the Chinese strategy embodies a "micro-first" approach to economic reforms, rather than a "macro-first" approach favouring economy-wide policy solutions. The former starts by improving incentives, particularly through institutional arrangements, as a necessary initial step towards greater market liberalization.

During much of the reform period, China mobilized resources mainly through retained profits and what is known as "financial restraint", which provided savers with few options but to channel funds into State-owned banks. At the same time, however, the Chinese authorities converted the mono-banking system into a two-tiered banking system, whereby the central bank focused on monetary policy (e.g. currency issuance and keeping inflation in check) and oversight of commercial banks through regulation and supervision, while commercial banks concentrated on the mobilization and allocation of financial resources.

The Chinese sequential approach to reforms was applied first to the agricultural sector. The organization of farming units was changed from a collective system to a "household responsibility system". The Chinese authorities also actively fostered diversification towards higher value crops through publicly funded agricultural research and extension services. Industrial sector reforms that followed in the mid-1980s sought to change the incentive structure of individual firms, while also improving the overall market environment in which those firms operated. Another key industrial sector reform at that time was the selective removal of monopoly power: while the State focused on large-scale, mostly "upstream" sectors, its ownership share was sharply reduced in "downstream" sectors such as printing, furniture and plastic products.

These gradual financial and industrial reforms were accompanied by a coherent macroeconomic framework. The Chinese authorities adopted a restrictive approach to exchange rate policy and capital account opening, reflecting the twin objectives of maintaining domestic macroeconomic stability, while exposing the economy to the benefits of trade and capital flows. This explains why the Chinese currency has been de facto fixed to the dollar since 1995: to avoid appreciation and remain competitive on export markets. At the same time, capital controls adopted an "FDI-first" orientation that favoured FDI inflows, which were considered more stable, over portfolio inflows, which were perceived as more volatile.

Mauritius is another example of gradual and unorthodox economic opening. It pursued a two-track strategy, with part of the economy very open and the other quite closed. Regarding resource mobilization, through the 1980s Mauritius maintained strong controls over its financial system which was dominated by commercial banks. While many of these measures were phased out over the course of the 1990s, the Government maintained its control over the Development Bank of Mauritius (DBM), one of the main public agencies supporting exports. Using subsidized interest rates to support government policy, the DBM was the source of a significant share of the credit and start-up capital used for diversifying the economy from its mono-crop base. In the aftermath of the 2008–2009 crisis, the Government focused more on SMEs, and the DBM was transformed into a bank to support micro, small and medium-sized enterprises.

Up to the mid-1960s, sugar milling and associated activities remained the primary industrial activity until the Government adopted a policy of import substitution to spur export diversification. In 1970, the Government shifted its strategy to promote export-oriented manufacturing by enacting the Export Processing Zone Act, which provided an array of incentives. Mauritius was still a highly protected economy in the 1970s with a high average rate of protection and a dispersed tariff structure, and this policy continued through the 1980s and 1990s, although the level of protection fell over time. The country's unorthodox opening up process was underpinned by preferential access provided by its trading partners to ensure the profitability of its sugar and garments and textile production, which accounted for the large bulk of Mauritian exports, particularly in the 1980s and 1990s.

Mauritius' macroeconomic framework utilized various pegged exchange arrangements in the 1980s to stabilize its currency before switching to a managed float by the mid-1990s. Although, currently, Mauritius has very limited capital controls, the Bank of Mauritius is mandated to first ensure the competitiveness of the country's exports, and second, to maintain price stability.

Viet Nam adopted a set of policies that would fundamentally change the underlying structure of its economy, favouring a gradual "dual-track" economic reform approach over a rapid "big-bang" approach. Its economic "renovation" *(doi moi)* strategy launched in 1986 had two main objectives. The first was to engineer a transition from a centrally planned to a market-based economy by allowing domestic prices to reflect world prices, increasing the number of entities engaged in trade, removing exchange rate distortions and reforming enterprise governance to allow indirect regulation through market prices. The second objective was to support export-oriented industries to counter the anti-export bias of the previous economic system.

With regard to resource mobilization, Viet Nam embarked on its first major reform of the financial sector in 1988 by establishing a two-tier banking system similar to the one adopted in China.

Viet Nam's renovation strategy began with agriculture, particularly rice cultivation. In 1988–1989 collective farming was dismantled, and the land was divided among farming households, which were recognized as the basic unit of agricultural production. The other major initiative was enterprise reforms to allow greater autonomy over commercial activities and improve the overall market environment, including the entry of foreign-owned firms. Domestic reforms were reinforced with the signing of international trade agreements and partnerships. Despite significantly reducing and binding all tariffs, however, Viet Nam has recently used flexibilities in the global trade regime to raise tariffs to the bound level for a range of products.

Finally, the country has adopted an unorthodox macroeconomic policy framework that combines a stable, competitive exchange rate with strong controls over inflows and outflows of capital, while also achieving a degree of independence in its monetary policy.

A post-2015 development agenda for LDCs

The proposed SDGs are extraordinarily ambitious — far more so than the MDGs. Achieving them would require a rate of structural transformation in LDCs at least comparable to that of the most successful ODCs, and poverty reduction would have to be even faster than in China. Such ambition is welcome, but it is also extremely challenging, especially at a time when global economic prospects are much less favourable than during most of the period since 2000, not to mention the additional challenges arising from climate change.

Furthermore, LDC economies operate in an interdependent global economy where earlier industrializers have already accumulated significant cost and productivity advantages, making it relatively more difficult for latecomers to upgrade and diversify their production structures. In this context, employing targeted, selective and more ambitious government policies to modify their economic structure and boost economic dynamism is of critical importance.

However there is no single blueprint for policy intervention. Successful countries in the past have employed a variety of different institutional arrangements and policies, encompassing market development, measures for technological upgrading, removal of infrastructural bottlenecks and support to enterprise development. A one-size-fits-all model of development and policymaking is therefore not practical. Rather, a pragmatic approach should be considered, based on a mix of policies selected to suit specific conditions. The types of policy instruments which may help foster structural transformation and enable achievement of the SDGs have been identified in *The*

Least Developed Countries Report 2014. It also suggests what reforms to the global economic system and what international support measures for LDCs will be needed.

Resource mobilization. Productive investment is central to economic transformation. In most LDCs, however, a combination of underdeveloped financial institutions and limited availability of opportunities for commercially viable productive investment at acceptably low levels of risk contribute to maintaining chronically low investment rates. LDC governments should therefore foster the development of a financial sector oriented towards productive investment, while creating opportunities for private investment in activities that will promote economic transformation.

FDI has played an important role in the extractive industries in many LDCs, and in developing export-oriented manufacturing in others. With appropriate policies and incentives, such investment can be harnessed to support development strategies involving economic diversification and technology transfer. FDI in manufacturing which uses more labour-intensive technologies and generates greater employment opportunities (often South-South) is especially beneficial to LDCs. Productive investment by the diaspora, though likely to be more limited in scale, may have strong development benefits, combining the advantages of domestic investment and FDI.

Development banks can play an important role in mobilizing resources for productive investment. They can promote investment in activities with high social rates of return and encourage complementary and interdependent investments. They should not be expected to be as profitable as private lenders, in view of their role in generating externalities. Equally, their optimal strategy is not to minimize mistakes, but rather to minimize the cost of mistakes should they occur. The information provided by an unsuccessful investment is also an externality, and its elaboration and dissemination should be an important part of a development bank's activities. This is particularly important with respect to innovative investments.

Investment in infrastructure (e.g. energy, transport and communications infrastructure) is another major means of increasing the profitability of many economic sectors and fostering structural transformation. This is in addition to infrastructure investments required for LDCs to meet the SDGs, such as those in health, education, water and sanitation. The total amount of financial resources needed is likely to amount to more than most LDCs' savings capacities or their governments' limited revenue-raising capacities. FDI could help fill the gap by providing additional resources in some sectors, but this would need to be supplemented by an increase in ODA. The development benefits of ODA can be enhanced through the use of labour-intensive methods and local procurement in infrastructure construction, and appropriate sequencing of infrastructure investment.

For fuel and mineral exporters, resource rents can play a significant role in providing financing for both public and private investment. These rents have the advantage over ODA in that they allow greater flexibility of use, enabling governments to set their own priorities and avoid some of the constraints associated with aid. While receipts from the extractive industries may be volatile and unpredictable, reflecting variations in market prices, expenditure can be smoothed over time – accumulating resources when prices are high, and drawing them down when prices are low – so that rents can serve a stabilization function as well as financing investment. Equally, where extractive industries result in a skewed geographical distribution of income, they can provide a means of redistributing the benefits more equitably across regions.

Industrial policy. Economic development is a process of continuous technological innovation, industrial upgrading and structural transformation, which is inherently plagued by market failures. Markets in developing economies are often incomplete or characterized by distortions (such as externalities or the presence of monopolies), and this provides a strong theoretical case for the use of industrial policy to alter the sectoral structure of the economy towards more dynamic sectors and activities. Investment in new sectors or the use of new production techniques is essential for structural transformation and economic diversification, but it involves considerable uncertainty, and market signals do not reflect its economy-wide benefits. This justifies proactive support for such investment.

The need for a shift from the traditional to the modern sector does not mean that investment should be limited to the modern sector. On the contrary, investment to increase productivity in agriculture is also critically important, as a substantial proportion of the workforce will remain in this sector. Equally, diversification of rural economies away from agriculture, so as to generate off-farm incomes, is an essential complement to structural transformation if it is to achieve a rapid reduction of poverty. Rural electrification using renewable energy technologies could substantially accelerate this process. Structural transformation and poverty reduction can best be combined if the supply of and demand for agricultural and non-agricultural production proceed in parallel.

LDCs need the type of investment that generates a substantial number of jobs, rather than that which reduces employment. Particular opportunities may arise from increasing ODA, from increased demand associated with poverty reduction, and from the development of forward and backward linkages from existing domestic productive capacities and FDI. For mineral and agricultural exporters, in particular, the development of production clusters around natural resources could constitute a potentially valuable step forward in structural transformation. Similar strategies may also be beneficial for other LDCs that have relatively strong agricultural potential.

Macroeconomic framework. The structural transformation necessary to achieve the SDGs sustainably requires macroeconomic policies which promote both investment and demand growth. Increasing productivity requires investment, and investment requires demand growth as a source of productive opportunities. Demand growth is also necessary for labour productivity to grow together with employment. This suggests that the overall macroeconomic policy stance should be relatively expansionary.

Of course, due consideration should be given to financial sustainability and price stability. However, to ensure sustained growth, it is important that monetary policy does not unduly restrict the availability of sufficient credit for productive investment, which is critical for promoting structural transformation. In LDCs, availability of credit will also help small enterprises to grow and diversify production. In other words, facilitating access to credit is of particular importance. By reorienting credit from consumption towards productive investment, LDCs will be able to broaden the sources of growth and reduce overdependence on imports.

Uncertainties associated with volatility of demand growth are also a potential threat to investment. Deficit targets should therefore allow flexibility for countercyclical policies in economic downturns, particularly in countries heavily dependent on commodity exports. Some tax and social expenditure policies — for example progressive taxation, welfare and social protection policies — can act as automatic stabilizers. In commodity-dependent countries, stabilization funds or variable export taxes can also be important for reducing the volatility of growth.

Finally, successful economic transformation requires exchange rate and trade policies that enable producers to be competitive in domestic and international markets.

International measures. Achieving the SDGs will require considerable efforts by LDC governments, but it will also require a concerted effort by the international community. Most obviously, this applies to aid. The financing requirements for the SDGs are considerable, and structural transformation (as well as adaptation to climate change) will add considerably to the costs. The LDCs will not have the resources to fund all of the necessary infrastructural investment. Increased aid and the honouring of donors' ODA commitments with respect to the amount of ODA and its ways of allocation, management and delivery — particularly the basis of international support of — will therefore need to play a major role. It is especially important that ODA and supports national development strategies and is aligned with them.

Resolving the remaining debt problems of LDCs should be a matter of priority, as also reform of the international financial system to ensure a more effective and pro-development system of crisis prevention and response. The SDGs would be quickly derailed if the serious damage inflicted by the debt crises of the 1980s and 1990s were to be repeated. Compensatory finance for economic shocks could also play a major role in limiting economic volatility. In addition, greater international coordination on taxation to avoid harmful tax competition could contribute to strengthening public revenues. Measures could also be explored to promote productive investment by LDC citizens working abroad.

An effective and equitable solution to climate change is also critical, due to LDCs' particular vulnerability to its impacts. Not only should limits on LDC emissions, which could impede their development, be avoided, but also indirect impacts of changes affecting their exports should be carefully evaluated and fully compensated through support to diversification and complementary trade measures.

In trade, LDCs should enhance their capacity to make full use of duty- and quota-free market access to developed and developing countries. Aid for Trade for LDCs — including through the Enhanced Integrated Framework (EIF) — should be increased and its focus broadened to support the development of productive capacities, while fully recognizing the principle of country ownership. LDCs' accession to the World Trade Organization (WTO) should be facilitated and accelerated. They should also be encouraged and assisted in taking full advantage of the flexibilities available under WTO Agreements for promoting development and structural transformation. International measures are also needed to allow LDCs to harness the benefits of intellectual property for development, including through effective implementation of the Development Agenda of the World Intellectual Property Organization and of the LDC

provisions of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights. The ultimate aim of these measures should be the facilitation of technology transfer to LDCs.

The analysis in *The Least Developed Countries Report 2014* reinforces the need for concerted efforts both by the LDCs and the international community to take effective and coherent policy measures aiming at the structural transformation necessary for enabling LDCs to tackle their enormous development challenges in the post-2015 period.

Dr. Mukhisa Kituyi
Secretary-General of UNCTAD

CHAPTER 1

Recent Trends and Outlook for the LDCs

A. Introduction

From 2002 to 2008, the least developed countries (LDCs) as a group experienced impressive economic growth, with their real gross domestic product (GDP) growing at an average annual rate of more than 7 per cent. This represented the strongest and longest period of growth acceleration achieved by this group of countries since 1970 (UNCTAD, 2010: chap.1). It was largely due to their robust export performance in the context of rising commodity prices and expanding global output, along with buoyant capital inflows stemming from higher remittances, foreign direct investment (FDI) and official development assistance (ODA). However, their performance in terms of achieving the Millennium Development Goals (MDGs) was disappointing (as discussed in chapter 2 of this Report).

From 2002 to 2008, LDCs as a group experienced impressive economic growth benefitting from favourable global economic conditions.

The conditions that had enabled strong growth in the LDCs as a group changed drastically from 2008 to 2012. Global output growth slumped with the deepening of the world economic and financial crisis. The contagion effects of the global crisis on LDCs were transmitted mainly through trade-related channels: their export performance and revenues suffered heavily from the sharp fall of commodity prices, combined with a decline in global demand. FDI flows to LDCs also declined sharply in the wake of the global crisis. Still, despite the slowdown, the LDCs as a group achieved an average growth rate of 5.7 per cent during the period 2008–2012, thus displaying apparent economic resilience.[1]

The conditions that had enabled strong growth in the LDCs as a group changed drastically from 2008 to 2012.

In 2013, LDCs maintained high economic growth, though they began to show signs of an economic slowdown. Sluggish global economic growth, which translated into lower international demand for commodities and a consequent decline in their prices, adversely affected the economic growth and export performance of several LDCs, most notably the fuel exporters. This resulted in a substantial deterioration of their current account and their merchandise trade. Although FDI reached a record high and inflows of remittances continued unabated, ODA started to show signs of stagnation and savings rates fell, leading to a greater need of external finance. Indeed, this has been a long-standing requirement of LDCs and it continues to play a vital role in financing investment.

This chapter analyses the recent performance of LDCs in terms of their economic growth (Section B), current account and participation in international trade (section C), as well as their sources of domestic and external finance (Section D). Section D concludes analysing the economic outlook for these countries. The analysis is conducted mainly for the LDCs as a group as well as for LDCs grouped by region and export specialization.[2] Due to the heterogeneity of these countries, more detailed country-level data is presented in a statistical annex at the end of this Report.

In 2013, LDCs maintained high economic growth, though they began to show signs of an economic slowdown.

B. The real sector

LDCs as a group continued to grow at a high rate in 2013, with their average real GDP increasing by 5.6 per cent (table 1). Although this was higher than the growth rates of developed countries (1.3 per cent) and all developing countries (4.6 per cent), it was below the upward revised rate of 2012 (7.5 per cent), and lower than the average rate of more than 7 per cent attained during the boom period of 2002–2008. Most notably, LDCs did not reach the 7 per cent annual growth target established by the Istanbul Programme of Action (IPoA, para.28a) (United Nations, 2011).

Given their dependence on external economic conditions, LDCs could not escape the slowdown in the overall global economy since 2010, a slowdown experienced by both developed and developing economies. Sluggish global output growth of 2.3 per cent in 2013 continued to affect them (UNCTAD, 2014a). Although there were some signs of improvement during the second half of the 2013 (mostly due to a revival of economic activity in developed economies), global recovery remains uneven.

Despite a less favourable external environment than in previous years, LDCs grew by 5.6 per cent in 2013.

Despite a less favourable external environment than in previous years, the economic performance of all LDC groups remained strong in 2013. LDCs in all regions attained growth rates hovering at around 6 per cent, with African LDCs and Haiti lagging only slightly behind their Asian and island counterparts. The difference was more pronounced when considering African LDCs' real GDP per capita. Their much faster demographic expansion offset comparatively faster GDP growth, causing their per capita GDP growth rates to be lower than that of other LDC groups and other developing countries (ODCs). Real GDP per capita in LDCs as a group increased by 2.8 per cent in 2013, which means that in many LDCs economic growth will have only a limited impact on living standards, given widespread poverty and an average population growth rate of 2.3 per cent (see chapter 2 of this Report).

While LDCs in all regions attained similar growth rates ...

Fuel-exporting LDCs exerted a drag on the overall economic performance of LDCs as a group in 2013. They registered a growth rate of 4.7 per cent – substantially lower than the 10.3 per cent achieved in 2012. Their slower growth was caused by a notable decline in fuel revenues in Angola, Chad and Equatorial Guinea, as the fuel sector not only suffered from lower fuel production but also lower international prices for crude oil (box 1). More generally, fuel exporters tended to register more volatile GDP growth rates. Given their overreliance on fuel exports for economic growth, any significant disruption in fuel production or international crude oil prices jeopardizes their entire economy.

... their economic performance according to export specialization showed mixed results.

Fuel production stagnated in Angola and declined in several others fuel-exporting LDCs in 2013. In Angola, the largest fuel producer among LDCs, the fuel industry maintained an average output of 1.8 million barrels per day (mb/d) in 2013, similar to 2012, but below the 2 mb/d production peak achieved in 2010. Fuel production in Chad also fell, from 105,000 barrels per day in 2012 to 97,000 barrels per day in 2013. In Equatorial Guinea, reduced fuel output plunged the country into recession; fuel production slowed down from 310,000 barrels per day in 2012 to 290,000 barrels per day in 2013, as major oilfields passed their peak production levels and no significant new fields have been found. South Sudan is the sole exception to the decline in fuel production: its

Table 1. Real GDP growth rates in LDCs, developing and developed economies, 2009–2014
(Per cent)

	2008	2009	2010	2011	2012	2013	2014
LDCs (total)	***6.8***	***4.5***	***5.7***	***4.2***	***7.5***	***5.6***	***6.0***
African LDCs and Haiti	6.4	4.9	5.9	4.1	7.2	5.6	6.0
Asian LDCs	5.3	5.9	6.5	3.8	6.4	5.7	6.0
Island LDCs	10.4	7.4	7.1	9.2	7.1	6.5	7.2
Food and agricultural exporters	7.5	6.6	6.3	5.1	1.8	4.1	5.5
Fuel exporters	8.1	2.6	4.3	-0.5	10.3	4.7	4.7
Manufactures exporters	5.8	5.2	5.8	6.5	6.1	5.8	6.0
Mineral exporters	5.4	4.0	6.4	6.1	6.0	6.2	7.6
Services exporters	8.6	7.5	7.0	7.1	7.0	6.2	5.9
Mixed exporters	5.4	4.2	5.9	5.1	7.1	5.9	6.9
Other developing countries	5.1	2.7	7.8	5.7	4.8	4.5	4.7
All developing economies	5.4	2.6	7.8	6.0	4.7	4.6	4.7
Developed economies	0.0	-3.7	2.6	1.4	1.1	1.3	1.8

Source: UNCTAD secretariat calculations, based on data from UN/DESA, *National Accounts Main Aggregates* database (accessed June 2014); and IMF, *World Economic Outlook* database (accessed July 2014).
Notes: For the composition of country groups, see page xiv. Data for 2014 are a forecast.

strong economic growth performance (estimated at 25 per cent) was largely due to a sharp increase in fuel output, from 115,000 barrels per day in 2012 to 250,000 barrels per day in 2013 (EIA, 2014).

The economic performance of LDCs that are fuel exporters, mixed exporters, services exporters and manufactures exporters also slowed down in 2013.

The economic performance of LDCs that are mixed exporters, services exporters and manufactures exporters also slowed down in 2013, albeit at different rates. Overall growth in the group of mixed exporters slowed down last year as higher growth in the Lao People's Democratic Republic and Myanmar did not compensate for declining growth rates in other LDCs of this group, in general, and a slump in the Central African Republic (which recorded a 37 per cent contraction of output) in particular.[3] Services exporters also grew at a slower pace, as strong expansion in Uganda and Ethiopia did not compensate for poorer performance elsewhere. Exporters of manufactures, on the other hand, continued to achieve GDP growth rates of around 6 per cent, though they registered a minor slowdown of growth in 2013 (down by 0.3 percentage points to 5.8 per cent) largely due to sluggish economic growth in both Bangladesh and Cambodia.

Food and agricultural exporters and mineral exporters improved their economic performance in 2013.

Food and agricultural exporters and mineral exporters improved their economic performance in 2013. Food and agriculture exporters saw a GDP growth rate of 4.1 per cent — substantially higher than their 1.8 per cent growth in 2012 — mainly as a result of moderate but widespread improvements of exports in several countries. Even more impressive is the fact that their general improvement in export performance was achieved in the context of an overall declining trend in global commodity prices. Mineral exporters, by contrast, registered a moderate increase in growth rates of only 0.2 percentage points, to reach 6.2 per cent in 2013. Contributing to this growth performance was Sierra Leone's continued double-digit growth (16.3 per cent), supported by the ongoing expansion of its mining sector (particularly iron ore production). Most notably, exploitation of the Tonkolili and Marampa iron ore mines led to a rise in iron ore production by nearly 150 per cent to 16.5 million tonnes in 2013 (EIU, 2014).

To sum up, in 2013 LDCs maintained strong economic growth, though they were beginning to show signs of economic slowdown. Improvements in the economic performance of food and agriculture exporters and mineral exporters compensated for the lower GDP growth rates of the fuel-exporting LDCs. In 2013, 11 out of the 48 LDCs achieved growth rates at 7 per cent or above, while six LDCs registered growth rates below 2 per cent (see annex). Due to their high population growth rates, LDCs with real GDP growth rates of around 2 per cent experienced lower or negative per capita growth rates. This seriously affects their ability to achieve poverty reduction and other MDGs.

The group of LDCs continued to see a rise in the current account deficit in 2013, reaching a historic peak of $40 billion.

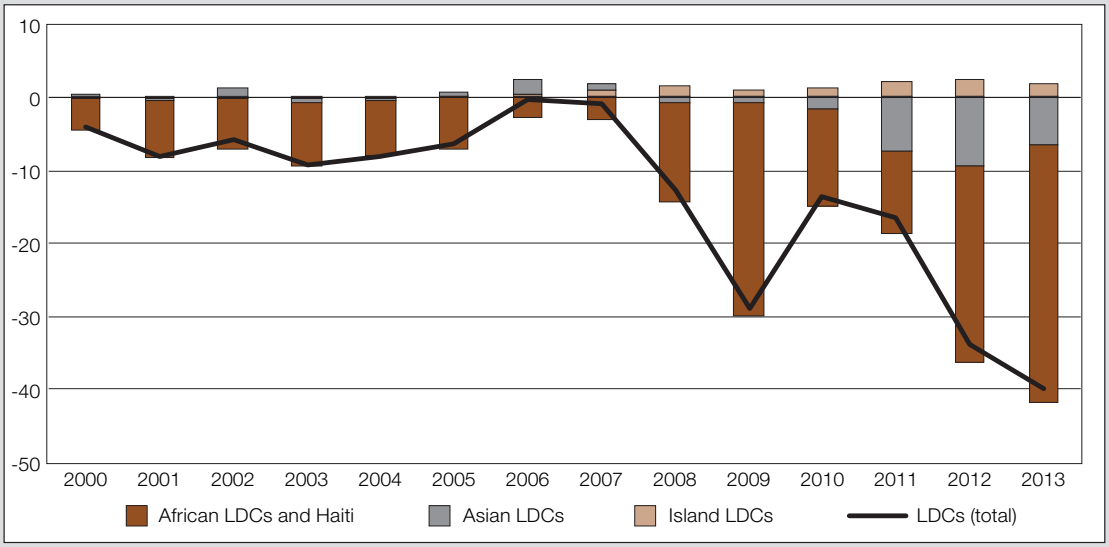
C. Current account and international trade

1. Current account balance

The group of LDCs continued to see a rise in the current account deficit in 2013, reaching a historic peak of $40 billion. This represented an increase of 17 per cent from the previous record of $33 billion attained in 2012. Indeed, since the onset of the global economic crisis, the current account deficit of the LDCs as a group has increased substantially (chart 1).

The increase of the current account deficit was primarily due to a widening of the current account deficit of African LDCs and Haiti, which reached $35 billion

Chart 1. Current account balance of LDCs, 2000–2013
(Billions of current dollars)



Source: UNCTAD secretariat calculations, based on data from IMF, *Balance of Payments* database (accessed August 2014).

in 2013 — a rise of 31.3 per cent — due to the sharp worsening of the current accounts of several African fuel exporters, particularly Angola (whose surplus dropped by half) and Chad (whose deficit more than doubled). By contrast, the deficit of Asian LDCs shrunk from $9.5 to $6.5 billion, notwithstanding a widening deficit of fuel exporting Yemen, from $0.9 to $2.9 billion. Island LDCs' current account, which has maintained surpluses since 2006, witnessed an overall decrease of 24.6 per cent to register a surplus of only $1.9 billion in 2013, notwithstanding slight improvements in the surplus of some countries, such as Tuvalu. Despite the decline, the group of island LDCs remains the only LDC group with a consistent positive current account balance.

The deterioration of LDCs' current account, which started in 2009, results from different trade performances of LDC regional groups.

The deterioration of LDCs' current account, which started in 2009, results from different trade performances of LDC regional groups. The worsening of the trade balance of African LDCs and Haiti played a key role in exacerbating LDCs' current account deficit. Asian LDCs' current account deficit also deteriorated over the same period, albeit to a lesser extent. This outcome is partially due to an improved export performance where the "pull" effect of their regional trading partners and a more diversified export basket helped them to weather the global crisis better than LDCs in other regions (UNCTAD, 2011: chap.1). Island LDCs, on the other hand, had accumulated current account surpluses since 2006 largely thanks to the improved dynamics of trade in services.

In 2013, the merchandise trade deficit of LDCs as a group widened in 2013 though at a rate significantly smaller.

2. Trade balance in goods and services

In 2013, the merchandise trade deficit of LDCs as a group widened (table 2), escalating by 29 per cent to reach $21.1 billion, though this was significantly smaller than the 338 per cent growth of the deficit in 2012, when exports declined in line with the worldwide deceleration of trade in goods (UNCTAD, 2013: chap.1). There were notable differences in the merchandise trade balance of the various LDC groups. The surplus in the merchandise trade of African LDCs and Haiti plummeted from $9.1 billion to $3.9 billion in 2013, a decline of 57 per cent. While the surplus has generally been concentrated in a handful of fuel-exporting countries, most notably Angola, Chad and Equatorial

Table 2. LDCs' export and imports of goods and services 2008–2013
(Millions of current dollars and per cent)

		2008	2009	2010	2011	2012	2013	% change 2013
Merchandise exports	LDCs (total)	168 175	129 448	163 936	202 137	204 561	214 875	5.0
	African LDCs and Haiti	129 565	93 299	117 361	145 989	148 464	150 232	1.2
	Asian LDCs	38 294	35 890	46 259	55 609	55 485	64 105	15.5
	Island LDCs	316	260	317	539	611	537	-12.1
Merchandise imports	LDCs (total)	161 177	152 475	167 295	205 869	220 908	235 984	6.8
	African LDCs and Haiti	107 427	101 491	105 580	125 870	139 284	146 288	5.0
	Asian LDCs	52 510	49 768	60 355	78 428	79 686	87 537	9.9
	Island LDCs	1 240	1 215	1 359	1 571	1 939	2 159	11.4
Merchandise trade balance	LDCs (total)	6 998	-23 027	-3 359	-3 732	-16 347	-21 109	-29.1
	African LDCs and Haiti	22 138	-8 193	11 780	20 118	9 181	3 944	-57.0
	Asian LDCs	-14 216	-13 879	-14 096	-22 818	-24 200	-23 431	3.2
	Island LDCs	-924	-956	-1 043	-1 032	-1 327	-1 622	-22.2
		2008	2009	2010	2011	2012	2013	% change 2013
Service Exports	LDCs (total)	20 706.6	21 550.0	25 009.2	29 676.3	30 807.3	34 518.7	12.0
	African LDCs and Haiti	13 719.4	12 852.9	13 860.0	17 434.0	18 315.0	20 161.5	10.1
	Asian LDCs	6 435.5	8 103.0	10 447.0	11 465.7	11 669.8	13 440.4	15.2
	Island LDCs	418.3	446.2	544.8	605.5	629.4	709.9	12.8
Service Imports	LDCs (total)	58 895.7	54 483.1	60 493.0	72 427.3	75 218.2	75 779.4	0.7
	African LDCs and Haiti	49 099.4	44 252.5	47 902.3	57 814.3	59 140.5	58 221.5	-1.6
	Asian LDCs	8 804.6	8 938.5	10 970.8	12 474.4	14 402.0	15 791.6	9.6
	Island LDCs	918.6	1 213.0	1 546.6	2 060.8	1 575.5	1 663.3	5.6
Service trade balance	LDCs (total)	-38 189.2	-32 933.1	-35 483.8	-42 751.0	-44 411.0	-41 260.7	7.1
	African LDCs and Haiti	-35 380.1	-31 399.5	-34 042.2	-40 380.2	-40 825.5	-38 060.0	6.8
	Asian LDCs	-2 369.1	-835.5	-523.8	-1 008.8	-2 732.2	-2 351.2	13.9
	Island LDCs	-500.2	-766.8	-1 001.8	-1 455.3	-946.1	-953.4	-0.8

Source: UNCTAD secretariat calculations, based on data from *UNCTADstat* database (accessed July 2014).

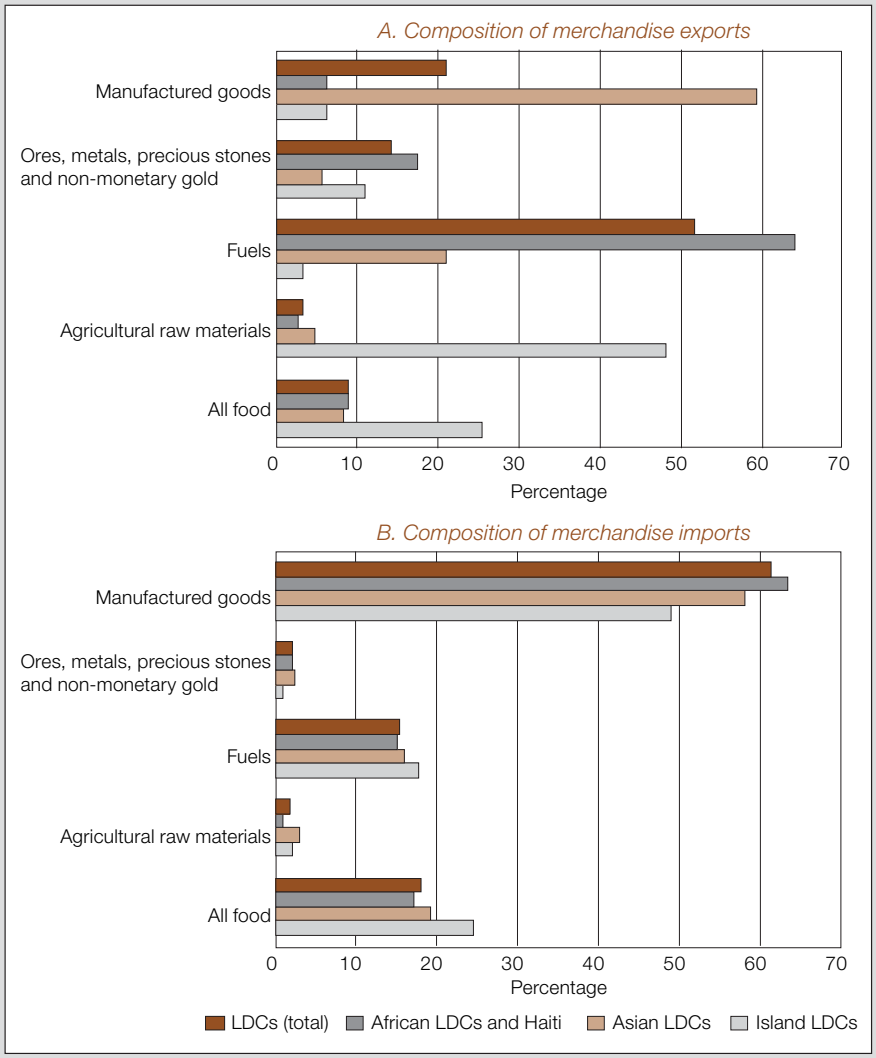
The LDCs saw growth in both merchandise exports and imports in 2013, but imports continued to outpace their exports.

Guinea, the decline of fuel prices and exports contributed to a reduction of their surpluses by 6.5 per cent, 12.5 per cent and 6.5 per cent respectively. Asian LDCs, by contrast, reduced their merchandise trade deficit by 3.2 per cent, to reach $23.4 billion in 2013, largely thanks to increases in merchandise exports (particularly from Bangladesh and Cambodia). Island LDCs' merchandise trade deficit increased by 22 per cent, to reach a historic $1.6 billion in 2013. The deterioration of the deficit was widespread within the group, with the exception of Tuvalu.

The LDCs saw growth in both merchandise exports and imports in 2013, but imports continued to outpace their exports. The merchandise exports of LDCs as a group rose by 5 per cent in 2013. While this growth rate is an improvement from the 0.6 per cent achieved in 2012, it is far lower than the approximately 25 per cent increase in 2011. Nonetheless, their total exports amounted to $214.9 billion in 2013, which was well above the 2008 pre-crisis peak of $168.2 billion. Merchandise imports of LDCs as a group also increased in 2013, at a rate of 6.8 per cent, to reach $236 billion.

The composition of merchandise exports differs substantially among the various LDC groups, unlike the composition of their imports. The difference in the composition of their merchandise exports reflects the heterogeneity of their economies. While fuel exports account for 51 per cent of the total exports of

Chart 2. Composition of merchandise trade of LDCs
(Per cent, average for 2011–2013)



Source: UNCTAD secretariat calculations, based on data from *UNCTADstat* database (accessed July 2014).

LDCs as a group, fuels are the main export item only of African LDCs, while manufactured goods are the bulk of Asian LDCs' exports, and agricultural goods, raw materials and food dominate the exports of the island LDCs (chart 2.a). On the other hand, as noted, the import composition of LDCs does not differ significantly (chart 2.b): manufactured goods account for the largest share of imports of all the LDC groups (61 per cent). However, there are some minor differences with regard to sub-groups of manufactured goods: machinery and transport equipment account for most of the manufactured goods imported by African LDCs and the island LDCs. In contrast, other manufactured products constitute a substantial share of the imports of the Asian LDCs.

Most of the increase in the merchandise exports of LDCs in 2013 was due to the 15 per cent increases in exports of Asian LDCs.

Most of the increase in the merchandise exports of LDCs in 2013 was due to the 15 per cent increases in exports of Asian LDCs. In particular, Bangladesh and Cambodia registered export growth of 16 per cent, driven by their exports of labour-intensive manufactured goods. Island LDCs' exports, by contrast, declined by 12 per cent, as the slight increase of their key export

Box 1. Recent trends in international commodity prices

The merchandise trade performance of many LDCs is closely related to the dynamics of international commodity prices owing to the predominance of commodities in these countries' total exports. Hence, fluctuations in commodity prices remain a central issue for LDCs.

International commodity prices declined moderately in 2013, mainly due to generally weak global demand associated with continuing sluggish global economic growth (box table 1). Most commodity prices continued their declining trend of the previous year, contrasting with the "roller-coaster" dynamics that have characterized international commodity markets over the past few years: a sharp increase in 2007 and 2008, followed by a downward correction in 2009, and a rapid rebound in 2011.

Food prices (except for fishmeal and cocoa beans), as well as prices of agricultural raw materials, fell by 7 per cent in 2013, despite a strong increase in tobacco prices. Prices of minerals, ores and metals were also on a downward trend in 2013, falling by 5 per cent. This decline resulted from weaker global economic growth, particularly the deceleration of growth in the more dynamic developing economies.

The price of crude oil, on the other hand, has been relatively stable since 2011. The oil market was well supplied in 2013, despite significant production disruptions. International crude oil prices were relatively stable because greater United States production and seasonally higher Saudi Arabian production (with peak summer production levels maintained into the third quarter) offset outages elsewhere (EIA, 2014).

An exception to the declining trend was the price of iron ore, which outperformed other commodity prices in 2013. Its surprising surge has been largely attributed to China's continued heavy spending on subways, bridges and other infrastructure, which kept demand for iron ore high. Although iron ore prices are still about a third lower than their all-time peak three years ago, they remain well above 2012 levels.

Although showing minor signs of weakening, commodity prices remained, on average, substantially higher than their levels registered in 2008 (except for the price of minerals, ores and metals as a group). The price decline in 2013 was at a slower pace than in 2012, which suggests that commodity prices may remain high in historical terms, even after some short-term corrections (UNCTAD, 2014a).

Box table 1. Price indices of selected primary commodities of importance to LDCs , 2008–2014 Q2
(Indices, 2000=100 and per cent)

	2008	2009	2010	2011	2012	2013	2014		Percentage change 2012–2013
							Q1	Q2	
All food	***236***	***216***	***232***	***273***	***269***	***249***	***243***	***245***	***-7.4***
Wheat	288	197	204	276	275	270	259	277	-1.9
Rice	344	289	256	271	285	255	216	201	-10.6
Sugar	156	222	260	318	263	216	204	220	-17.9
Fish meal	274	298	409	372	377	423	383	410	12.1
Coffee, Arabicas	163	166	228	321	220	166	207	251	-24.8
Coffee, Robustas	252	183	200	275	263	239	242	256	-9.2
Cocoa beans	291	325	353	336	269	275	333	348	2.0
Tea	109	127	125	140	141	107	100	90	-23.9
Agricultural raw materials	***198***	***163***	***226***	***289***	***223***	***206***	***198***	***191***	***-7.4***
Tobacco	120	142	144	150	144	153	168	170	6.3
Cotton	121	106	175	258	150	153	159	156	1.5
Non-coniferous woods[1]	154	154	161	158	153	157	..	..	2.3
Non-coniferous woods [2]	..	..	..	..	100	103	106	108	3.1
Minerals, ores and metals	***332***	***232***	***327***	***375***	***322***	***306***	***289***	***281***	***-5.1***
Iron ore [3]	83	100	184	210	161	169	151	129	5.3
Aluminium	166	107	140	155	130	119	110	116	-8.6
Copper	384	283	416	487	438	404	388	374	-7.8
Gold	312	349	440	562	598	506	464	462	-15.4
Crude petroleum	***344***	***219***	***280***	***368***	***372***	***369***	***367***	***377***	***-0.9***

Source: *UNCTADstat, Commodity Price Bulletin* (accessed 24 August 2014).
Notes: [1] Non-coniferous woods: series discontinued end September 2013, United Kingdom import price index 2005=100, dollar equivalent
[2] Non-coniferous woods: new series starting January 2012, United Kingdom import price index 2010=100, dollar equivalent
[3] Iron ore: New series starting November 2008, Iron ore, China import, fines 62 per cent Fe spot (CFR Tianjin port) ($/dry ton)

sectors (agricultural goods, raw materials and food) did not compensate for the widespread decline of their other export sectors. The merchandise exports of African LDCs registered a slight increase (1.2 per cent), despite the stagnation of the fuel exporters' external sales.

The broad increase in imports of goods of all LDC groups in 2013 was due to the double-digit growth of imports of manufactured goods. Imports to Asian LDCs were again highly concentrated in textiles, which rose by 21 per cent.[4] Imports of other manufactured goods rose consistently in the African LDCs. Machinery and transport equipment constituted the bulk of African and island LDCs' imports. LDCs' food imports increased sharply in 2013, by as much as 24 per cent.

The broad increase in imports of goods of all LDC groups in 2013 was due to the double-digit growth of imports of manufactured goods.

The trade deficit in services of LDCs as a group declined in 2013, driven by the strong export performance of all LDC groups. LDCs' trade balance in services recorded a deficit of $41.3 billion in 2013 — an improvement of 7 per cent from the $44.4 billion deficit of 2012 (table 2). This reversal of a growing deficit since 2009 was the result of the widespread and strong performance of total LDC exports (12 per cent) combined with stagnating imports (0.7 per cent), the latter being largely driven by a 1.6 per cent reduction of imports by African LDCs and Haiti. All regional LDC groups registered positive double-digit growth rates in exports of services.

The trade deficit in services of LDCs as a group declined in 2013, driven by the strong export performance of all LDC groups.

Trade has an important role in ensuring LDCs' sustainable economic development. Fuel-exporting African LDCs strongly influenced the weaker performance of this LDC group in terms of both the current account and merchandise trade balance. Asian LDCs, on the other hand, continued to improve their external performance by increasing their exports and reducing their trade deficit. Overall, there were noticeable differences among LDCs: only seven countries posted a merchandise trade surplus in 2013. These included fuel exporters (Angola, Chad and Equatorial Guinea) and non-fuel mineral exporters (the Democratic Republic of the Congo and Zambia). Sierra Leone's trade deficit saw the largest reversal, from deficit to surplus in 2013, largely thanks to an increase in iron prices and iron exports (which represent 70 per cent of its total exports). Angola led all the LDCs with a surplus of $44.3 billion.

D. Resource mobilization[5]

1. Domestic resource mobilization: Gross fixed capital formation and savings

In 2012, LDCs as a group reached a gross fixed investment rate of 24.5 per cent of GDP, close to the Brussels Programme of Action target of 25 per cent of GDP.

Variations in the real GDP growth rates of the different LDCs are also a consequence of disparities in several macroeconomic indicators, including gross fixed capital formation (GFCF). While fixed investment is relevant for economic growth of all economies, regardless of their level of development, the case of LDCs deserves particular attention. Owing to their structural underdevelopment, LDCs are especially in need of fixed investment for achieving sustainable growth. Acknowledging this, the Brussels Programme of Action for the Least Developed Countries for the Decade 2001–2010 had adopted as a target a GFCF rate of 25 per cent of GDP as a prerequisite for supporting GDP growth rates of 7 per cent (United Nations, 2001: para.6) and this level remains a benchmark.

In 2012, LDCs as a group reached a gross fixed investment rate of 24.5 per cent of GDP, close to that target (table 3). However, only Asian LDCs achieved a fixed investment rate above this threshold (27.2 per cent of GDP), while African

Table 3. Gross fixed capital formation, gross domestic savings and external resource gap in LDCs, and other developing countries, selected years
(Per cent of GDP)

	Gross fixed capital formation					Gross domestic savings					External resource gap				
	2000-2008	*2009*	*2010*	*2011*	*2012*	*2000-2008*	*2009*	*2010*	*2011*	*2012*	*2000-2008*	*2009*	*2010*	*2011*	*2012*
LDCs	20.5	22.3	22.6	22.9	24.5	17.6	15.5	20.1	21.6	20.0	-2.9	-6.8	-2.5	-1.4	-4.5
African LDCs and Haiti	19.3	21.6	21.8	21.6	23.0	18.2	14.9	21.5	23.0	21.1	-1.1	-6.7	-0.2	1.3	-1.9
Asian LDCs	22.6	23.6	24.0	25.2	27.2	16.4	16.0	17.2	18.4	17.6	-6.2	-7.6	-6.7	-6.8	-9.6
Island LDCs	11.8	17.5	18.2	18.2	17.2	31.8	34.0	40.8	50.6	43.3	20.0	16.6	22.6	32.4	26.1
Other developing economies	26.1	30.2	30.2	30.4	31.1	32.0	33.8	35.1	35.6	35.4	5.9	3.6	4.9	5.3	4.4

Source: UNCTAD, *UNCTADstat* database (accessed August 2014).

LDCs' fixed investment rate, albeit increasing, was slightly lower than that threshold, at 23 per cent of GDP in 2012.

Savings rates in LDCs declined in 2012.

Savings rates in LDCs declined in 2012, from 21.6 per cent of GDP in 2011 to 20 per cent. Heterogeneity in real GDP growth rates among LDCs is a consequence of disparities not only in GFCF but also in savings rates – a key indicator of the potential for investment. The deterioration took place in all LDC group, with island LDCs experiencing the largest drop of 7.3 percentage points of GDP.

As a result of these investment and savings tendencies, the external resource gap of LDCs widened markedly, from -1.4 per cent of GDP in 2011 to -4.5 per cent of GDP in 2012, indicating a higher reliance on external resources for financing. By contrast, fuel exporters (i.e. Angola, Chad and Equatorial Guinea) and island LDCs maintained a positive resource gap throughout 2012. Sierra Leone was the only LDC that attained a zero balance, thanks to a combination of both lower fixed capital formation and higher savings rates.

As a result of these investment and savings tendencies, the external resource gap of LDCs widened markedly.

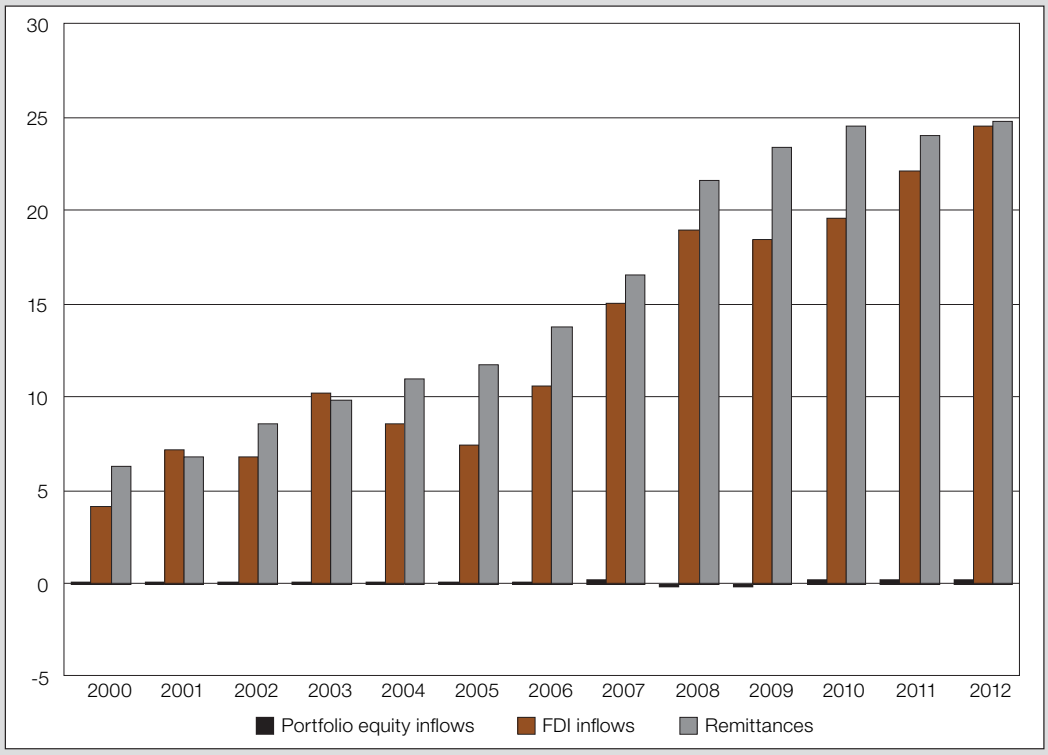
2. External resource mobilization: Private and official capital flows

LDC savings and investment dynamics reveal a continuing overreliance on external financing for investment. With investment in fixed capital at 24.5 per cent of GDP and a domestic savings rate of 20 per cent of GDP, LDCs needed external resources equivalent to 4.5 per cent of GDP to finance their current level of fixed investment in 2012. While specific rates vary among them, external finance is of crucial importance for all of these countries.

LDCs needed external resources equivalent to 4.5 per cent of GDP to finance their current level of fixed investment in 2012.

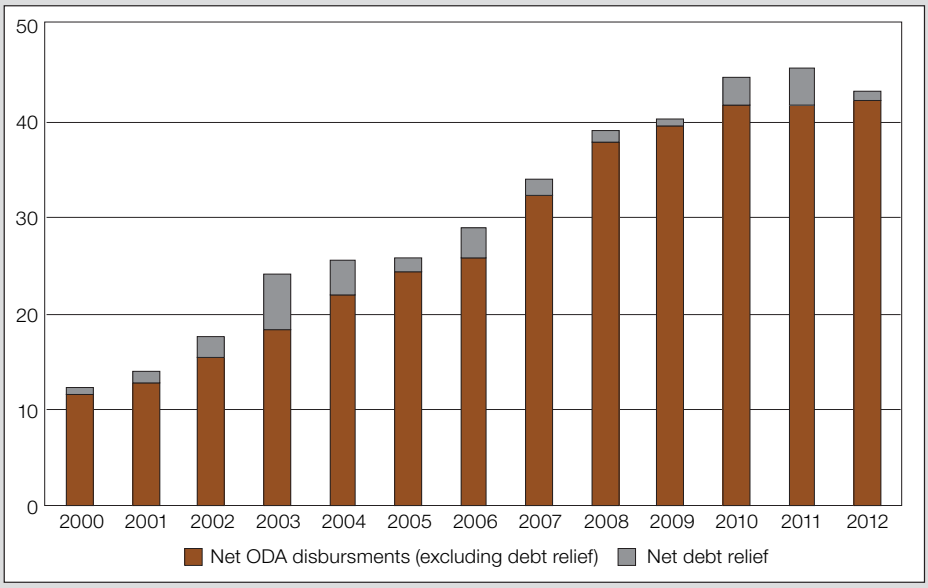
The composition of external financial flows to LDCs differs from that to developed countries and ODCs. In developed countries and ODCs, private flows such as FDI and portfolio investments are the principal sources of external finance, whereas in LDCs, the major source of private flows is remittances, which are larger and more stable than FDI flows (UNCTAD, 2012: chap.1)[6]. Portfolio flows to LDCs, on the other hand, are negligible (chart 3). For several LDCs, remittances are also a major component of their balance of payments (BoP), and constitute a vital source of foreign exchange that can be used to partially finance other BoP components (e.g. their trade deficit). Within official capital flows, net ODA disbursements account for the bulk of external finance (chart 4). Hence, remittances and concessional official financing remain extremely important for LDCs, accounting for almost three fourths (30 per cent and 45 per cent respectively) of total capital flows to these countries.

Chart 3. Private capital flows to LDCs, 2000–2012
(Billions of current dollars)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed August 2014) and UNCTAD, *UNCTADstat* database (accessed August 2014).

Chart 4. Official capital flows to LDCs, 2000–2012
(Billions of current dollars)



Source: UNCTAD secretariat calculations, based on data from OECD *DAC database* (accessed August 2014).

Total capital flows to LDCs as a group increased in 2012, driven by higher private flows.

Total capital flows to LDCs as a group increased in 2012, driven by higher private flows, which rose by 16 per cent to $56 billion in 2012, thanks to an increase in remittances along with historically high FDI inflows. Official capital flows, on the other hand, showed a mixed trend: ODA, excluding debt relief, increased slightly by 1.3 per cent, to $42.3 billion, while debt relief fell by 79 per cent to $0.8 billion.

Remittances increased significantly, largely as a result of increasing flows to Asian LDCs.

Remittances increased significantly by 11 per cent in 2012 to reach $29.5 billion, largely as a result of increasing flows to Asian LDCs. Indeed, Asian LDCs accounted for by far the largest proportion of remittances to LDCs with a 70 per cent share in total remittances. Bangladesh alone accounts for 45 per cent of total remittances to LDCs. In 2012, remittances to Asian LDCs surged by $2.8 billion to reach $21.2 billion, mostly due to a rise of $2 billion in Bangladesh, resulting in a total of $14 billion of flows to that country. Other Asian LDCs also registered increases, albeit weaker, most notably Nepal and Myanmar, where remittances rose by $0.7 billion and $0.4 billion respectively. In African LDCs and Haiti, the results varied: while growing by $0.2 billion to $8.2 billion in aggregate, only a few countries, including Haiti and Uganda, registered higher remittance flows. In contrast, flows to most other LDCs declined in 2012. For example, they fell sharply in Senegal and Lesotho, where remittances are of crucial importance to their economies, accounting for a large share of gross national income (higher than 10 per cent) (UNCTAD, 2012: chap.3). In island LDCs, the decline was broad-based, with remittance flows declining to $162 million in 2012 from $164 million in 2011.

FDI inflows to LDCs rose to a record high, the largest recipients being the mineral-exporting African LDCs.

FDI inflows to LDCs rose by 10 per cent to a record high of $24.4 billion in 2012, the largest recipients being the mineral-exporting African LDCs. This increase in FDI inflows to LDCs occurred despite a sizeable decline in global FDI outflows and inflows. For example, outflows from developed countries to the rest of the world dropped to a level close to the trough of 2009, and their inflows reached a low level last observed 10 years ago. Notwithstanding this adverse environment, inflows to African LDCs grew by $2.5 billion to reach $21.8 billion, accounting for more than 70 per cent of total flows to LDCs. These flows, however, remained highly concentrated in a few resource-rich African LDCs, with non-resource sectors receiving a limited share of overall FDI flows to LDCs. In 2012, FDI inflows were mostly directed to mineral exporters, especially the Democratic Republic of the Congo, Mauritania and Mozambique. Asian LDCs also registered higher FDI inflows in 2012, up by $1 billion to total almost $6 billion. Cambodia accounted for a large proportion of these FDI inflows, which increased by 79 per cent in 2012. Inflows into island LDCs, on the other hand, registered a sharp slowdown, amounting to only $212 million — the lowest since 2005.

ODA (excluding debt relief) was virtually stagnant.

Regarding official capital inflows, ODA (excluding debt relief) was virtually stagnant. The average annual growth rate of ODA to LDCs was only about 1 per cent for each of the two consecutive years of 2011 and 2012.[7] If debt relief is included in ODA, total flows showed a negative trend: after achieving a record high of $45.5 billion in 2011, those flows to LDCs slowed down to $43 billion in 2012. The decline of ODA (including debt relief) in 2012 was due to lower debt relief to African LDCs. The Democratic Republic of Congo, the second largest receipt of ODA in the LDC group after Afghanistan, registered the sharpest decline, from $5.5 billion in 2011 to $2.9 billion in 2012. Aid flows to Asian LDCs, on the other hand, increased by $0.8 billion to $12 billion in 2012, largely owing to increased flows to Bangladesh ($0.7 billion), whereas flows to island LDCs remained stable.

In sum, while LDCs have made considerable efforts to mobilize domestic resources for their development, lower savings rates have led to a widening of the external resource gap. While private capital flows (both remittances and FDI flows) to LDCs increased in 2012, ODA, the largest source of external financing for LDCs, tended to stagnate. According to the Organisation for Economic Co-operation and Development (OECD), lower or stagnant ODA is partly due to a broad set of austerity measures adopted by donor countries in recent years (UNCTAD, 2013: chap.1). Ensuring greater financial resources remains a key challenge for financing LDCs' development. With a widening external resource gap and with no increase in ODA, LDCs face significant challenges in their future growth efforts.

FDI flows to LDCs rose to a record high of nearly $28 billion.

3. FDI inflows into LDCs in 2013

In 2013, FDI flows to LDCs rose by $3.5 billion (14 per cent) to a record high of nearly $28 billion (table 4), representing almost 2 per cent of global inflows. While this is a low share, it has been increasing since 2010. Global FDI inflows rose by 9 per cent in 2013, to reach $1.45 trillion (UNCTAD, 2014b) amidst a return of cautious optimism in support of FDI.

African LDCs accounted for a large proportion of the increase in FDI flows to LDCs.

African LDCs accounted for a large proportion of the increase in FDI flows to LDCs: with their FDI inflows increasing by $2.5 billion, the total inflows to this group of LDCs escalated to $21.8 billion, despite significant disinvestment taking place in Angola (negative inflows of $4.3 billion). Asian LDCs also recorded higher FDI inflows, up by $0.9 billion resulting in a total of $6 billion. However, there were contrasting trends among larger recipients, with substantial increases in Bangladesh ($0.3 billion), virtual stagnation of inflows in Cambodia (increasing by only $0.05 billion), and a continuing disinvestment trend in Yemen (negative FDI inflows). Island LDCs recovered from the sharp slowdown of 2012, as flows rose by $55 million resulting in total inflows of $213 million thanks to higher inflows into Comoros and Timor-Leste. However, FDI inflows to this group are still close to the low levels registered in 2007.

In analysing LDC groups according to export specialization, FDI dynamics showed mixed results.

In analysing LDC groups according to export specialization, FDI dynamics showed mixed results in 2013. Inflows into mineral exporters declined, while they increased in exporters of services and manufactures, and there were minor increases in mixed exporters. Fuel-exporting LDCs showed both investment and disinvestment trends.

LDC mineral exporters, the largest recipients of FDI inflows among LDCs, received $11 billion of FDI inflows in 2013 (table 5). Following a rising trend in previous years, FDI flows to this group declined by 12 per cent in 2013, as increases in several mineral producers (most notably Mozambique and Zambia)

Table 4. FDI inflows to LDCs, 2009–2013
(Millions of dollars)

	2009	2010	2011	2012	2013
LDCs (total)	18 481	19 558	22 111	24 429	27 956
African LDCs and Haiti	15 531	15 415	17 666	19 317	21 801
Asian LDCs	2 716	3 777	4 138	4 953	5 943
Islands LDCs	234	366	307	158	213

Source: UNCTAD secretariat calculations, based on *UNCTADstat* database (accessed August 2014).

Table 5. FDI inflows into LDCs by export specialization, 2008–2013
(Millions of dollars)

	2008	2009	2010	2011	2012	2013
Food and agricultural exporters	383	294	480	402	312	345
Fuel exporters	5 506	6 919	2 903	1 406	-2 584	1 128
Mineral exporters	4 201	3 228	6 415	7 598	13 102	11 477
Manufactures exporters	2 145	1 544	1 956	2 149	2 967	3 251
Services exporters	3 008	2 840	2 625	3 416	3 875	4 696
Mixed exporters	3 689	3 665	5 180	7 154	6 780	7 087

Source: UNCTAD Secretariat calculations, based on *UNCTADstat* database (accessed August 2014).

could not compensate for the sharp decline of flows to the Democratic Republic of the Congo and Guinea.

FDI inflows into mixed exporters and exporters of services and manufactured good increased in 2013.

FDI flows to fuel exporters are highly influenced by the dynamic of flows to Angola, which is the largest fuel exporter and recipient of FDI flows among LDCs. In 2013, Angola continued to register negative FDI inflows, though this disinvestment trend declined from approximately $7 billion in 2012 to approximately $4 billion in 2013. Yemen also experienced disinvestment in 2013. If both countries are excluded, FDI flows to LDC fuel exporters amounted to $5.5 billion that year, resulting in a positive growth rate of 14 per cent.

FDI inflows into LDC mixed exporters grew by 4.5 per cent in 2013, to reach $7 billion. Higher FDI flows to Myanmar, the largest recipient among mixed exporters, partially compensated for decreases elsewhere. Most notably, there were sharp declines in flows to Niger and the fall in FDI flows to the Central African Republic.

The rise in FDI flows to LDC exporters of manufactured goods, however, should be kept in perspective: they accounted for only 10 per cent of the total FDI flows to LDCs, and they remain highly concentrated in two economies: Bangladesh and Cambodia

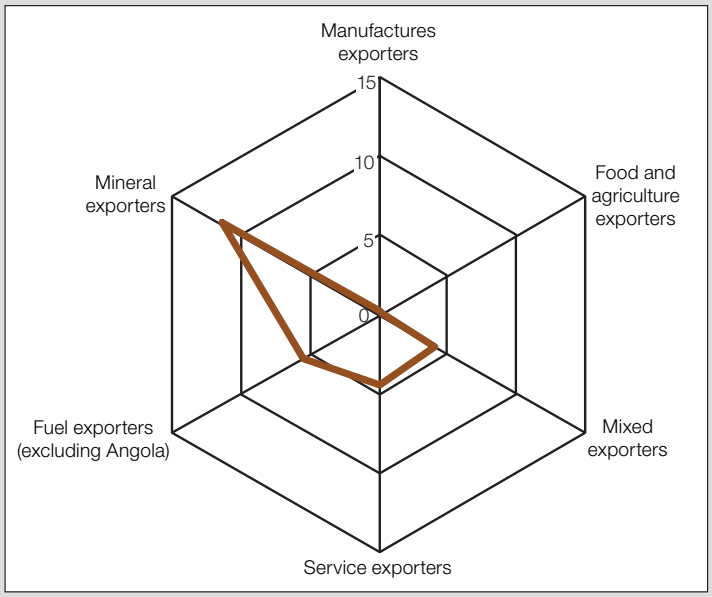
FDI inflows into LDC exporters of services and manufactured goods, on the other hand, increased in 2013, with flows to exporters of services rising by 21 per cent (almost $ 0.9 billion) and to exporters of manufactured goods expanding by approximately 10 per cent (close to $ 0.3 billion). While 10 out of 13 LDC exporters of services saw an increase in investment flows, the increase in flows to LDC exporters of manufactured goods was driven mainly by higher flows to Bangladesh (up from $1.3 billion in 2012 to 1.6 billion in 2013), which accounted for 50 per cent of total flows to this category of LDCs.

For this reason, the rise in FDI flows to LDC exporters of manufactured goods should be kept in perspective. These LDCs accounted for only 10 per cent of the total FDI flows to LDCs, and they remain highly concentrated in two economies: Bangladesh and Cambodia, which together received 84 per cent of the flows to this category of LDCs. Excluding these two economies, investment flows to other exporters of manufactured goods (Bhutan, Haiti and Lesotho) received a total of only $250 million in 2013, which represents only 0.9 per cent of the total FDI flows to LDCs. By contrast, LDCs specialized in extractive industries accounted for more than 70 per cent of the total FDI flows to LDCs.

FDI flows to LDCs in general, and to African LDCs in particular, go predominantly to countries specialized in extractive industries.

In conclusion, FDI flows to LDCs in general, and to African LDCs in particular, go predominantly to countries specialized in extractive industries (chart 5). Hence, the stylized fact that FDI flows to mineral-exporting LDCs declined in 2013 while those to exporters of manufactured goods increased is not an indication that the poorest countries are becoming less dependent on FDI in extractive industries.

Chart 5. FDI inflows into African LDCs by export specialization, 2013
(Billions of dollars)



Source: UNCTAD secretariat calculations, based on *UNCTADstat* database (accessed August 2014).

4. Remittance flows in 2013

In 2013, remittance flows into LDCs are estimated to have risen by 2.5 per cent, amounting to $30.7 billion, with African LDCs experiencing particularly robust growth in flows (up by 6.7 per cent to almost $9.2 billion). Several countries saw double-digit growth in flows, most notably Rwanda and Uganda, where such flows rose by 30 per cent and 14.5 per cent respectively. Growth in remittances to Asian LDCs has slowed, rising by a modest 0.8 per cent to reach $21 billion in 2013. This contrasted with the double-digit average annual increase of previous years: 11.2 per cent in 2011 and 15.3 per cent in 2012. The slowdown was driven by a decline of 2.4 per cent in the Asian LDCs' largest recipient, Bangladesh. Remittances to island LDCs grew by 4.5 per cent in 2013, as a result of higher flows into Timor-Leste (with total flows to this LDC amounting to $120 million and corresponding to almost 9 per cent of Timor-Leste's GDP).

In 2013, remittance flows into LDCs are estimated to have risen with African LDCs experiencing particularly robust growth in flows.

With regard to remittances as a share of GDP, the top recipients were Nepal (25 per cent of GDP), Haiti (21 per cent of GDP) and Liberia (20 per cent of GDP).

6. Remittance inflows in LDCs, 2008–2013
(Millions of dollars)

	2008	2009	2010	2011	2012	2013
LDCs (total)	21 461	22 542	24 376	26 953	29 922	30 673
African LDCs and Haiti	7 983	7 446	7 731	8 444	8 601	9 179
Asian LDCs	13 446	15 057	16 493	18 347	21 161	21 328
Island LDCs	31	39	152	161	159	166
World (total)	446 328	417 158	453 499	506 565	521 489	541 938

Source: UNCTAD secretariat calculations, based on World Bank, *Migration and Remittances* database, http://www.worldbank.org/migration, updated April 2014.
Note: Data for 2013 are estimates.

All these economies received higher inflows in 2013, with their growth rates being 9 per cent, 5 per cent and 6 per cent respectively. In contrast, Lesotho, where remittances accounted for 23 per cent of GDP, registered a decline in remittance inflows of 6 per cent. In absolute terms, Bangladesh continued to be the largest recipient of remittances, receiving almost $14 billion in 2013.

E. The economic outlook for the LDCs

Despite slightly improved prospects, global economic recovery remains fragile and uncertain.

World economic growth is expected to recover only moderately in the medium term. In the first and second quarter of 2014, the global economy saw a modest improvement, and current projections point to an average annual growth rate of 2.5–3 per cent in 2014 (UNCTAD, 2014a: chap.1).[8] The developed economies are expected to provide much of the impetus for growth. Growth in developing economies, on the other hand, is expected to slow down. Nevertheless, they are likely to continue to account for more than two thirds of global growth (IMF, 2014: chap.1).

For LDCs, the unfavourable external environment is likely to jeopardize their economic growth.

Despite slightly improved prospects, global economic recovery remains fragile and uncertain. Significant downside risks remain for developed and developing countries, including LDCs. Developed countries face major concerns such as low inflation and the possibility of protracted slow growth, especially in the euro area and Japan (IMF, 2014: chap.1). In developing countries, the persistent instability of the international financial system could lead to possible reversals of capital flows, which would make it difficult for them to meet their sizeable external funding needs (UNCTAD, 2014a: chap.1).

As for LDCs, the unfavourable external environment, exacerbated by the stagnation of ODA flows and a widening external resource gap, are likely to jeopardize their economic growth. Already in 2013, trade-related revenues had increased only moderately or even decreased due to falling commodity prices, and the continuing uncertain outlook for international commodity prices will constrain the growth of LDCs in the medium term. On the supply side, geopolitical tensions in different commodity-producing regions could lead to a temporary rebound of prices, while on the demand side much depends on the performance of the more dynamic developing economies — particularly China — where demand for commodities has remained buoyant so far (UNCTAD, 2014: chap.1). Adjusting to a changing external environment has always been a major challenge for the LDCs, a challenge now compounded by the subdued state of the world economy and the prevailing uncertainties.

A less favourable external environment coupled with LDCs' weaker growth performance suggests that achieving the Sustainable Development Goals (SDGs) is likely to become more difficult.

A less favourable external environment coupled with LDCs' weaker growth performance suggests that achieving the MDGs, and the Sustainable Development Goals (SDGs) planned to succeed them, is likely to become even more difficult. In this uncertain environment, a more strategic approach will be necessary to bring about the much-needed structural transformation in LDCs that is necessary for their sustained and inclusive economic growth. Such growth is crucial to enable LDCs to meet both long-standing and emerging challenges. These issues are discussed in subsequent chapters of this Report.

Notes

1 *The Least Developed Countries Report 2010* (UNCTAD, 2010: chap.1) attributed LDCs' economic performance during the crisis largely to a number of external factors, particularly a substantial increase in assistance from the International Monetary Fund, the World Bank and regional development banks in 2009, which partly offset the decline in private capital flows. In addition, growing demand from large emerging economies contributed to a recovery in international commodity prices during that year. Finally, the LDCs benefited from continued inflows of remittances.

2 For the composition of country groups, see p.xv of this Report.

3 Military upheaval starting in March 2013 led to the country's most serious crisis in its history (AfDB, OECD and UNDP, 2014), resulting in its economy grinding to a standstill in 2014.

4 The "textiles" category includes textile fibres, yarn, fabrics and clothing (SITC 26 + 65 + 84).

5 Due to the use of different sources with their related time coverage of data, some series covered up to 2012, while some others covered up to 2013. At the time of writing this Report, only data for remittances and FDI inflows had been released for 2013.

6 Migrants' remittances are the sum of workers' remittances, employee compensation and migrants' transfers. Migrants' transfers cover for flows of goods and changes in financial items that arise from migration (change of residence for at least one year).

7 At the time of writing this Report, data were available only until 2012 (inclusive). Preliminary data could not be used for this analysis as only a few donors of the OECD Development Assistance Committee (DAC) adhered to early reporting.

8 The IMF forecasts an average annual global output growth of 3.4 per cent in 2014. The global growth rate has been marked down by 0.3 per cent from the 3.7 per cent projected in January 2014, reflecting both the legacy of the weak first quarter, particularly in the United States, and a less optimistic outlook for several emerging markets (IMF, 2014).

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CHAPTER 2

LDCs' Progress Towards Achieving the MDGs

A. Introduction

The Millennium Development Goals (MDGs, see table 7) have embodied the objectives of the global community with respect to development since 2000. In addition, the Brussels and Istanbul Plans of Action have set the economic development objectives for least developed countries (LDCs) during this period. However, while the LDCs have achieved an overall economic growth rate broadly in line with the 7 per cent target set by those Plans of Action, the majority of LDCs are expected to miss most of the MDGs. As discussed in box 2, the MDG metrics, by their very nature, are exceptionally challenging to the LDCs, so that failure to meet those targets should not be interpreted simply as a shortcoming of LDC governments themselves; it also reflects in part a failure of the international community to live up to its commitments to global development in general, and to LDCs in particular.

While the LDCs have achieved economic growth in line with the 7 per cent target, the majority of LDCs are expected to miss most of the MDGs.

Nonetheless, many LDCs have enjoyed unprecedented growth rates for much of the period since 2000, and official development assistance (ODA) receipts have increased rapidly, even though they remain far short of the target of 0.15–0.20 per cent of donor country gross national income (GNI). The failure of the current model of economic growth to deliver social benefits on the scale envisaged by the MDGs during a period of exceptionally favourable economic growth and strongly rising ODA suggests a deeper problem. This has important implications for the post-2015 development agenda: LDCs will stand little chance of achieving the much more ambitious sustainable development goals (SDGs) unless lessons are drawn from the experience of these past 15 years. The nature of these lessons is discussed in later chapters of this Report.

LDCs will stand little chance of achieving the much more ambitious SDGs unless lessons are drawn from the experience of these past 15 years.

This chapter reviews LDCs' performance relative to the key MDG targets relating to poverty, employment, hunger, education, health and access to water and sanitation (section B). It then considers the performance of the international community on MDG 8 (concerning international support to development) with respect to LDCs (section C). Section D summarizes and concludes.

B. Tracking the MDGs

This section begins with a summary of global performance in respect of the MDGs, followed by an assessment of LDCs' progress towards the MDGs since the 1990 baseline. Since time-series data for all the MDGs have some gaps, the assessment uses data for five-year periods. It should be noted, however, that the country coverage of data for some indicators and country groups vary even between five-year periods. This makes the results sensitive to outlier values, particularly for island LDCs and for 2011–2012, for which data are more limited.

1. Global progress towards the MDGs: An overview

Global performance on the MDGs presents a mixed picture.

MDGs 1-7 set outcome targets for reduction of extreme poverty and hunger, improvements in basic standards of human development (in terms of education, gender equity, health, and access to water and sanitation facilities) and environmental sustainability. The single goal relating to international support to development (MDG 8), which is essential for realizing these outcomes, is discussed separately in section C of this chapter.

Global performance on the MDGs presents a mixed picture (World Bank and IMF, 2013; UN/DESA, 2013). The headline goal of halving extreme poverty

Box 2. MDG Metrics and the Interpretation of LDC Performance

Most of the MDGs (and their successors among the planned SDGs) are based on deficit indicators; that is, they aim to reduce a negative indicator, either to zero or by a certain proportion, rather than to increase a positive indicator. Thus the MDGs include halving poverty, undernutrition and the proportion of people without access to safe water and sanitation, and reducing under-five mortality rates by two thirds and maternal mortality ratios by three quarters. Similarly, universal net primary school enrolment can be interpreted as reducing to zero the proportion of children of the relevant age group who are not at school, and "decent work for all" as reducing to zero the proportion of the labour force that does not have decent work.

There are three critical advantages in using such deficit indicators:

- First, it is intuitively appealing to set a target of levelling up or down towards an ideal level which, in some cases (e.g. poverty and school enrolment), is generally taken for granted in developed countries.
- Second, they allow the global goals to be interpreted equally as a set of identical national or regional goals. If, for instance, poverty is halved, the under-five mortality rate is reduced by two-thirds and the maternal mortality ratio is reduced by three quarters in every country, it follows that concomitantly they will also be reduced by the same amount within every region and globally.
- Third, the absolute improvement as a result of meeting a goal is greatest where the starting point is worst. For example, in two countries of the same size, halving poverty takes more people out of poverty where it starts at 50 per cent than where it starts at 20 per cent. If, instead, the goal were to double the incomes of the poorest 20 per cent, the greatest absolute increase would be where the initial income was highest, that is, where the need was least.

This third advantage means that the deficit type of indicator is particularly useful as a basis for global prioritization and its assessment: the most effective way of meeting the goals globally is to target resources where the need is greatest. However, it also makes performance against the MDGs less appropriate as a means of comparing the performance of national governments, because the absolute improvement needed to achieve the goal is much greater in the most disadvantaged countries, where capacity is also the most limited. Thus, a country with 60 per cent of the population living in poverty must lift 30 per cent of that population out of poverty to meet the goal, yet a country with 20 per cent of its population living in poverty need only do one third as much. A country where 90 per cent of people have access to water or sanitation need only provide these facilities to 5 per cent more to meet the relevant MDG, whereas a country where only 40 per cent of people have such access must provide 30 per cent more with access. The case of under-five mortality rates is still more problematic, as the percentage reduction in under-five mortality rates has been substantially smaller historically starting from the relatively high rates characteristic of LDCs (starting from an average of 162 per 1,000 live births in 1990) than from lower rates (Easterly, 2009, figure 5).

Thus the nature of the MDG targets means that achieving them requires a much greater absolute improvement by LDCs than other developing countries (ODCs) (in general). Coupled with the much more limited resources and capacity available to LDCs, this means that it is much more difficult for them to achieve a given performance relative to MDG targets.

By some measures, LDC performance on the MDGs has been quite favourable relative to ODCs: a 2010 assessment of performance against the 25 MDG indicators for which data were available found that a greater proportion of LDCs than of all developing countries had shown some improvement since 1990 on around half of the indicators. Moreover, on most indicators, a greater proportion of LDCs than of all developing countries had accelerated their rate of improvement during the course of the period (Fukuda-Parr and Greenstein, 2010, tables 1 and 2). This represents a very considerable improvement in the lives of their people.

Using the MDGs as a yardstick of government performance with respect to social development would lead almost inevitably to the conclusion that most LDC governments have not performed nearly as well as most ODC governments. This is unhelpful and disempowering, portraying even LDCs which have performed remarkably well on social indicators as failures (Vandemoortele, 2007; Easterly, 2009).

Thus the failure of the majority of LDCs to meet most of the MDGs is not primarily a reflection of underperformance by their own governments; rather, it is in large measure a reflection of a failure by the international community to give them adequate priority. As argued in this Report, it also reflects an excessive focus on outcome targets with insufficient attention given to the means of attaining them. As discussed later in this chapter, the planned SDGs are considerably more demanding than the MDGs, and nowhere more so than for the LDCs. They are unlikely to be achieved if these shortcomings in the MDG approach are not addressed.

Several MDG goals have been met, but ...

from the 1990 level by 2015 had already been achieved globally by 2010-2011, although the expected reduction in sub-Saharan Africa is only a quarter. The goal for access to safe drinking water has also been met globally, but only around half of all developing countries are on track to meet this goal, while sub-Saharan Africa and the World Bank country grouping Middle East and North Africa are not even half-way towards meeting this target. The (rather vague and less ambitious) goal of improving the lives of 100 million slum dwellers by 2020 is also on track globally, whereas the goal of gender parity in primary and secondary education should be met by 2015, 10 years after the target date of 2005.

Table 7. Millennium Development Goals and targets

Goal 1 **Eradicate extreme poverty and hunger**	*Target 1.A*
	Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day.
	Target 1.B
	Achieve full and productive employment and decent work for all, including women and young people.*
	Target 1.C
	Halve, between 1990 and 2015, the proportion of people who suffer from hunger.
Goal 2 **Achieve universal primary education**	*Target 2.A*
	Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.
Goal 3 **Promote gender equality and empower women**	*Target 3.A*
	Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.
Goal 4 **Reduce child mortality**	*Target 4.A*
	Reduce by two thirds, between 1990 and 2015, the under-five mortality rate.
Goal 5 **Improve maternal health**	*Target 5.A*
	Reduce by three quarters, between 1990 and 2015, the maternal mortality ratio.
	Target 5.B
	Achieve, by 2015, universal access to reproductive health.*
Goal 6 **Combat HIV/AIDS, malaria and other diseases**	*Target 6.A*
	Have halted by 2015, and begun to reverse, the spread HIV/AIDS.
	Target 6.B
	Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.
	Target 6.C
	Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.
Goal 7 **Ensure environmental sustainability**	*Target 7.A*
	Integrate the principles of sustainable development into country policies and programmes and reverse the loss of environmental resources.
	Target 7.B
	Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.*
	Target 7.C
	Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation.
	Target 7.D Achieve, by 2020, a significant improvement in the lives of at least 100 million slum dwellers.
Goal 8 **Develop a global partnership for development**	*Target 8.A*
	Develop further an open, rule-based, predictable, non-discriminatory trading and financial system (including a commitment to good governance, development and poverty reduction – both nationally and internationally).
	Target 8.B
	Address the special needs of the least developed countries (including tariff- and quota-free access for LDCs' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPCs), and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction.
	Target 8.C Address the special needs of landlocked developing countries and small island developing States (through the Programme of Action for the Sustainable Development of Small Island Developing States and 22nd General Assembly provisions).
	Target 8.D Deal comprehensively with the debt problems of developing countries through national and international measures in order to make debt sustainable in the long term.
	Target 8.E In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries.
	Target 8.F In cooperation with the private sector, make available benefits of new technologies, especially information and communications

Source: United Nations (2008).
Notes: *Targets added at the 2005 United Nations World Summit.

... in several other areas, global progress has fallen far short of that required to meet the MDG targets.

In several other areas, global progress has fallen far short of that required to meet the MDG targets. This includes the goal of universal primary education, targets for reducing infant, under-five and maternal mortality rates, access to basic sanitation facilities, and universal access to reproductive health care and antiretroviral therapy for human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS). Progress in reducing undernutrition is also falling short of the rate needed to meet the MDGs globally, with nearly three quarters of all developing countries off-track on this indicator.

2. LDCs' PROGRESS TOWARDS INDIVIDUAL MDGs AND THEIR TARGETS

a. Poverty

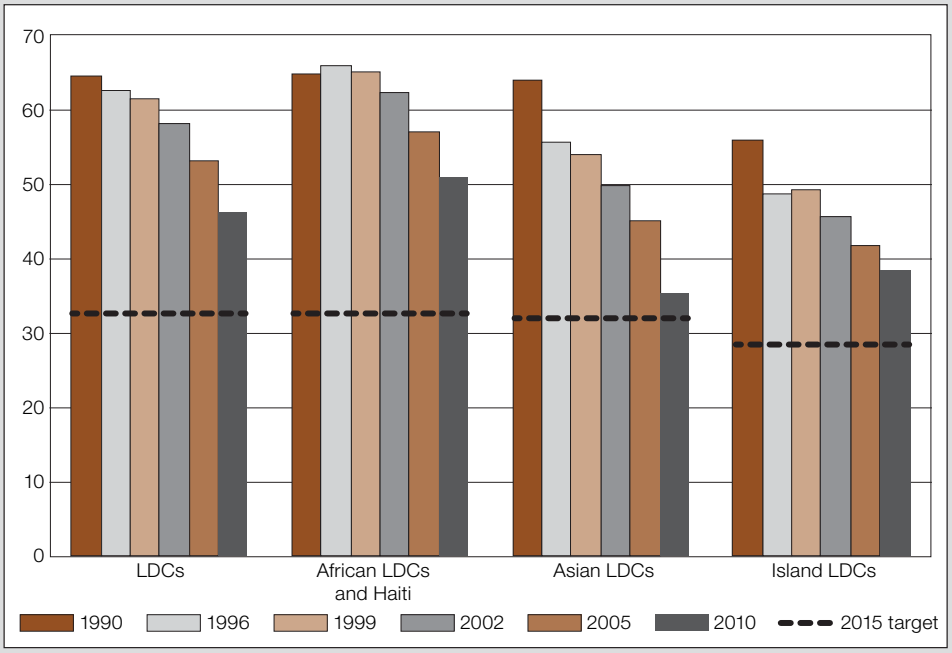
On average, LDCs reduced the proportion of people living in poverty, based on the $1.25-a-day poverty line[1], from 65 per cent in 1990 to 46 per cent in 2010 (chart 6.) This is nearly as fast as the reduction in ODCs in percentage points (from 40 per cent to 20 per cent) but substantially slower in relative terms (less than one third compared with half), and insufficient to achieve the target of halving poverty by 2015. The LDC average mainly reflects the African, and not the Asian, context: while Asian LDCs are broadly on course to halve poverty, reducing it from 64 per cent to 36 per cent between 1990 and 2010, progress in African LDCs and Haiti has been much slower, the rate falling only from 65 per cent to 51 per cent. Thus a key issue in assessing poverty reduction performance in LDCs is the structural and policy differences between those in the Asian and African regions since 1990.

While Asian LDCs are broadly on course to halve poverty, progress in African LDCs and Haiti has been much slower.

Overall, despite the recent relatively strong growth performance of the LDCs, about 46 per cent of their population — around 400 million people — still remain below the $1.25-a-day poverty line. Moreover, there is growing evidence that economic growth and poverty reduction have been highly unevenly distributed between growing and declining regions and territories among LDCs and ODCs (Rodríguez-Pose and Gill, 2006; Zhang and Zou, 2011). Lagging regions and territories contain a large and growing proportion of the "bottom 40 per cent", who have become an increasing focus of attention in the context of the post-2015 development agenda and the planned SDGs.

A key issue in assessing poverty reduction performance in LDCs is the structural and policy differences between those in the Asian and African regions since 1990.

Chart 6. Per cent of population living below the poverty line of $1.25 a day (PPP), 1990–2010



Source: UNCTAD secretariat calculations, based on data from World Bank, *PovcalNet* (http://iresearch.worldbank.org/PovcalNet/index.htm?2) (accessed September 2014).
Note: Weighted averages. The dotted lines reflect the MDG target of halving the poverty headcount ratio by 2015 for each LDC group.

b. Employment

Productive employment is the best, most dignified and most economically sustainable pathway out of poverty.

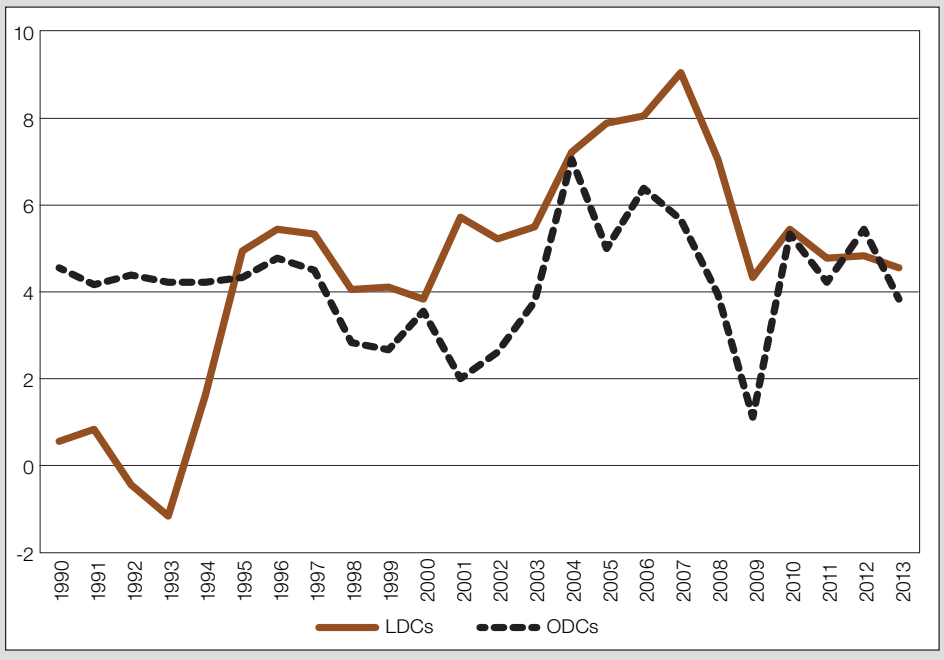
The MDG target to "achieve full and productive employment and decent work for all, including women and young people", has received relatively little attention since it was added in 2005. However, employment is central to poverty reduction. Productive employment is the best, most dignified and most economically sustainable pathway out of poverty. It is also key to establishing a virtuous circle of economic and human development, as discussed in chapter 3.

Indeed, the general failure of non-Asian LDCs to achieve the MDG of halving poverty largely reflects their inability to translate historically rapid economic growth since the mid-1990s (chart 7) into corresponding increases in employment. The Least Developed Countries Report 2013 (UNCTAD, 2013b) showed that those LDCs with faster GDP growth have had *less* employment creation. That Report therefore called for a break with the "business as usual" policies and practices of the current growth model, and for a new set of priorities and policies based on inclusive growth and sustainable development to create more and better-quality employment. The findings of the current Report reinforce this conclusion.

Failure to achieve the MDG of halving poverty largely reflects LDCs inability to translate rapid economic growth into increases in employment.

Assessing overall employment trends in LDCs is complicated by the absence of open unemployment. The lack of social safety nets such as unemployment benefits forces people in LDCs, faced with few alternative sources of income, to resort to very low-income activities, generally in family agriculture and informal services, rather than being entirely unemployed. Thus they are generally underemployed rather than unemployed. This is referred to as vulnerable employment, defined by the International Labour Organization (ILO) as the sum of own-account workers and contributing family workers. As a result, changes in employment as a proportion of the population over time mainly reflect changes in the age composition of the population (and, for example, participation in education), rather than job creation.

Chart 7. Annual GDP growth in LDCs and ODCs, 1990–2013
(Per cent)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).

Progress towards the provision of "decent jobs" may be measured in terms of the extent to which the proportion of people in vulnerable employment has fallen. Recent (post-2010) data on vulnerable employment are available for only half of all LDCs. Among these, vulnerable employment accounts for between 77 per cent and 95 per cent of total employment in African LDCs (plus Haiti), Bangladesh and the Lao People's Democratic Republic, but less (53–72 per cent) in other Asian LDCs and Vanuatu, and only 30 per cent in Yemen. In ODCs, vulnerable employment is typically between about 30 and 50 per cent, and has declined to some extent in most countries, although it can be as high as 75–80 per cent in some sub-Saharan African ODCs, and is 80 per cent in India.[2]

The pattern of changes in vulnerable employment over time varies widely between individual LDCs.

The pattern of changes in vulnerable employment over time also varies widely between individual LDCs (among the still smaller number of countries for which there is more than one observation available since around 1990). Most countries have seen reductions during this period: six countries in a range of 1.2 to 3 percentage points per year, and five between 0.2 and 0.6 percentage points per year. All three LDCs experiencing the fastest reductions have been in Asia (Bhutan, Cambodia and Yemen). However, two countries have seen virtually no change in vulnerable employment, one (Madagascar) a modest increase, and two (Bangladesh and Zambia) a more rapid increase of around 1–2 percentage points per year.

There is also a wide gender gap in vulnerable employment.

There is also a wide gender gap in vulnerable employment, as formal sector job opportunities for women are often limited by their role in unpaid household and care work. In 2012, across LDCs as a whole, 85 per cent of women and 73 per cent of men were in vulnerable employment, and in most there were many more women than men employed in the non-agricultural informal sector (UNCTAD, 2013b, chap.3).

c. Hunger

The average prevalence of undernourishment in LDCs has fallen steadily but ...

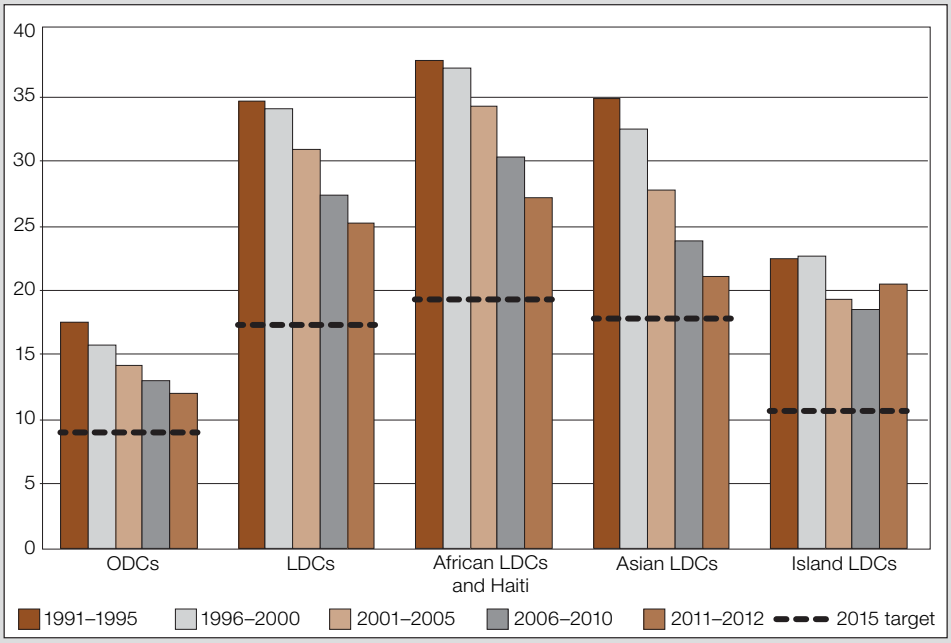
The average prevalence of undernourishment in LDCs has fallen steadily by about a quarter (FAO, 2013), from 35 per cent in 1991–1995 to 25 per cent in 2011–2012 (chart 8).[3] This is a slightly smaller reduction proportionally than the average for ODCs, and substantially less than that needed to halve hunger by 2015. The level of undernutrition is higher and has fallen more slowly in African LDCs and Haiti than in Asian LDCs. However, while the reduction in Asian LDCs has also been faster than the average for ODCs, it is still insufficient to halve undernutrition by 2030. While the extent of undernutrition is lower in island LDCs than in Asian and African LDCs and Haiti, it has fallen much more slowly in the former.

... faster GDP growth among LDCs, and even the success of Asian LDCs in halving poverty, has not proved sufficient to halve hunger.

Thus, faster GDP growth among LDCs, and even the success of Asian LDCs in halving poverty, has not proved sufficient to halve hunger. This also requires sustained investment and improvements in agricultural productivity, as well as reductions in poverty and effective social safety nets.[4] LDCs therefore need to continue to put in place the necessary policies and infrastructure to tackle these issues. There are encouraging signs of progess in this respect, according to the Hunger and Nutrition Commitment Index (HANCI) of the Institute for Development Studies (IDS). According to that index, LDCs account for four out of seven countries with a high level of political commitment to tackling hunger and undernutrition, and seven out of ten with moderate commitment (IDS, 2014).

World food prices are also important in the fight against hunger and malnutrition. Rapid increases in prices of basic foods such as maize and rice in 2005–2008, and again in 2010–2011, are estimated to have increased the incidence of undernourishment (insufficient calorie intake) significantly, with the greatest impacts on the poorest and those living in urban areas (Anríquez et al., 2013).They also led to episodes of public unrest and riots in

Chart 8. Prevalence of undernourishment , 1990–2012
(Per cent of population)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Note: Unweighted averages.The dotted lines reflect the MDG target of halving under-nourishment by 2015 for each country group.

many LDCs. While recent revisions in FAO estimation methods suggest that overall undernourishment has continued to fall in LDCs as a whole and in most individual LDCs (FAO, 2013), this is only part of the picture (World Bank, 2008). As households reduce spending on non-staple foods to meet their calorie needs, adverse effects are likely on other aspects of nutrition, particularly micronutrient intake (Iannotti et al., 2012; Torlesse et al., 2003). In addition, numerous studies have found significant adverse effects of higher staple food prices on poverty in both LDCs and ODCs, generally with the greatest effects on the poorest (Zezza et al., 2008; Wodon et al., 2008; Ivanic and Martin, 2008; Wodon and Zaman, 2010; de Hoyos and Medvedev, 2011; Ivanic et al., 2012; Simler, 2010; Caracciolo et al., 2014). The achievement of health and education MDGs may also be adversely affected by the diversion of household expenditure from health and education to food items to sustain nutritional intake (UNCTAD, 2013a).

There was a strong increase in net primary enrolment rates both in African LDCs plus Haiti and in Asian LDCs.

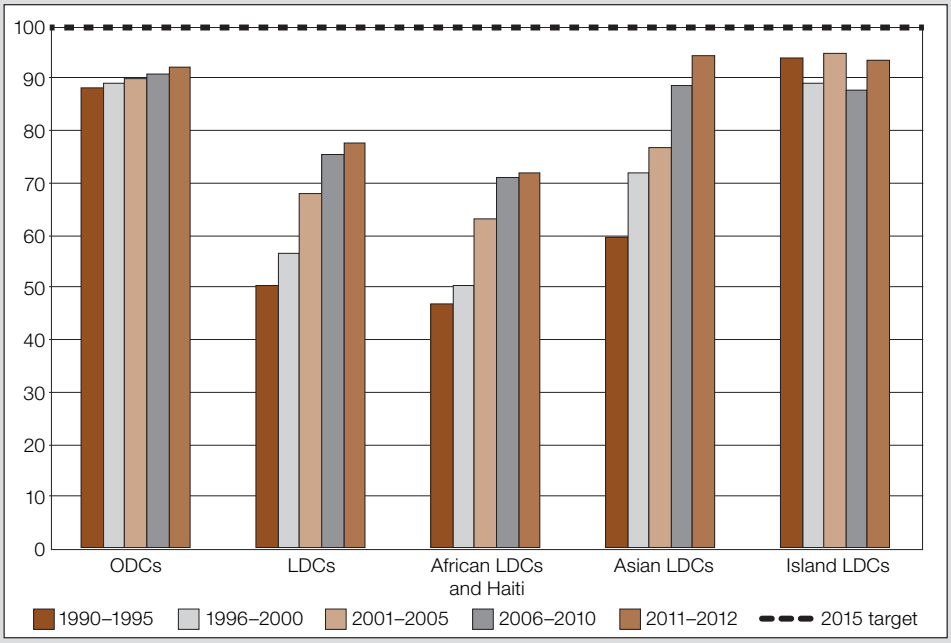
d. Primary education

(i) Primary school enrolment

MDG 2 seeks to ensure that, by 2015, all children will complete a full course of primary schooling (United Nations, 2008). The average primary school enrolment ratio in LDCs increased from 50 per cent in 1990 to 75 per cent in 2012 (chart 9). While it thus remains well below the ODC average of 90 per cent, the extent of improvement in LDCs is much better on this indicator, as they have halved the proportion of children not in primary school, compared with a reduction of just one fifth in ODCs.

There was a strong increase in net primary enrolment rates both in African LDCs plus Haiti (from 46 per cent to 71 per cent) and in Asian LDCs (from 60 per cent to 94 per cent). Asian LDCs performed particularly well, reducing the proportion of children not in school by nearly three quarters; indeed, they

Chart 9. Net enrolment rates in primary school, 1990–2012
(Per cent of the population in primary school age)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Note: Unweighted averages.The dotted lines reflect the MDG target of universal primary education by 2015. Variations in the Island LDC figures largely reflect differences in country data availability between periods.

now have a higher enrolment ratio than ODCs. Island LDCs maintained relatively high enrolment rates (around 90 per cent). Thus the remaining gap in primary education is now between the African LDCs and Haiti group and the rest of the world.

Overall, around a quarter of children of primary school age in LDCs are not enrolled in an educational institution. However, though more widely used than completion rates, enrolment rates tend to overstate the proportion of children *completing* primary education. Five LDCs have achieved completion rates of 100 per cent (Bhutan, Nepal, Sao Tome and Principe, and Kiribati), and four others (Cambodia, Lao People's Democratic Republic, Myanmar and Zambia) have ratios above 90 per cent. However, 16 have ratios between 50 and 70 per cent, and six between 30 and 50 per cent.

(ii) Gender balance in education

MDG target 3A aims to eliminate gender disparities in primary and secondary education by 2005, and at all levels of education by 2015. While the gender balance at all levels of education has improved strongly in LDCs since 1990, 2005 targets have not been met, on average, and the gender gap remains very wide at the secondary and, especially, the tertiary levels. Between 1990–1995 and 2011–2012, the average ratio of girls to boys enrolled in primary schools in LDCs rose from 0.78 to 0.94 (chart 10). It also rose at the secondary level, from 0.64 to 0.85, and at the tertiary level from 0.40 to 0.59. While gender balance is similar across geographical groups at the primary level, island LDCs have performed much better than the LDC average in higher education, with ratios of 1.04 at the secondary level and 0.85 at the tertiary level.

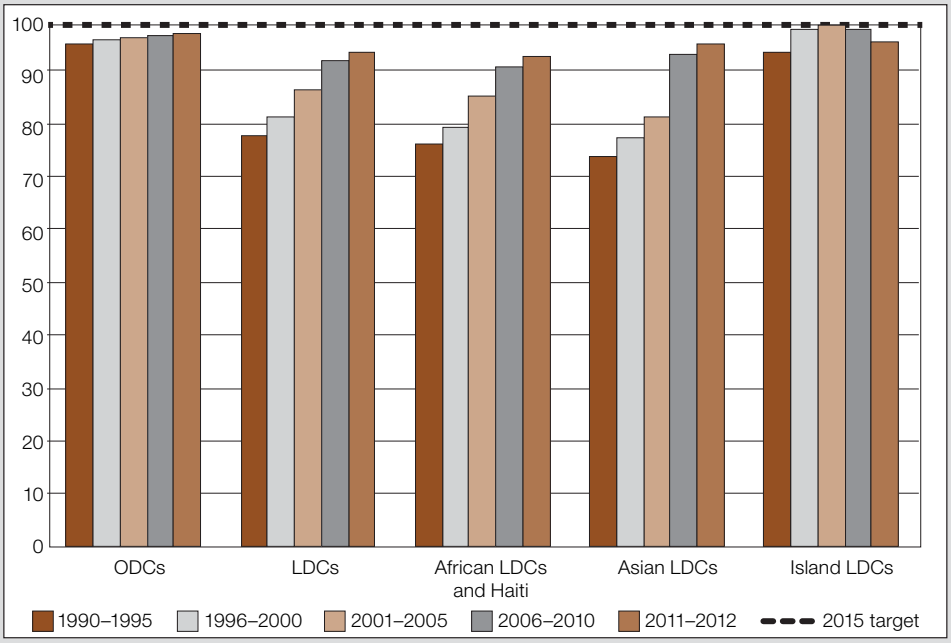
While the gender balance at all levels of education has improved strongly in LDCs, targets have not been met.

The gender gap remains very wide at the secondary and, especially, the tertiary levels.

The gap between LDCs and ODCs is much greater at higher levels of education.

The gap between LDCs and ODCs is much greater at higher levels of education: while the average gender ratio at the primary level for LDCs is only

Chart 10. Ratio of female/male enrolment in primary education, 1990–2012
(Per cent)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Note: Unweighted averages.The dotted lines reflect the MDG objective of gender parity in primary education by 2015.

The average under-five mortality rate in LDCs has fallen by almost half.

slightly below that of ODCs (0.94 compared with 0.97), ODCs have already achieved parity at the secondary level on average, and exhibit a strong and increasing pro-female bias in tertiary education, with a ratio of 1.51, up from 1.12 in 1990–1995.

e. Child mortality rates

While the gap with ODCs has narrowed, the average under-five mortality rate in LDCs remains nearly three times the average for ODCs.

The world has seen a major reduction in the number of deaths of children under 5 years of age, from 12.6 million in 1990 to 6.6 million in 2012 (WHO, 2013). The average under-five mortality rate in LDCs has fallen by almost half, from 156 per 1,000 live births in 1990–1995 to 83 per 1,000 in 2011–2012, with a somewhat faster rate of improvement in Asian LDCs than in the African LDCs and Haiti or the island LDCs (chart 11). This is slightly faster than the average for ODCs, which fell from 52 per 1,000 to 29 per 1,000 over the same period. This may be partly due to improvements in maternal and child nutrition, as well as more effective vaccination and maternal and child health programmes. Bangladesh, Liberia, Malawi and Nepal have already met the target of reducing under-five mortality rates by two thirds since 1990, while Bhutan, Ethiopia, Madagascar, Niger and Rwanda have achieved reductions of around 60 per cent, enough to meet the target by 2015.

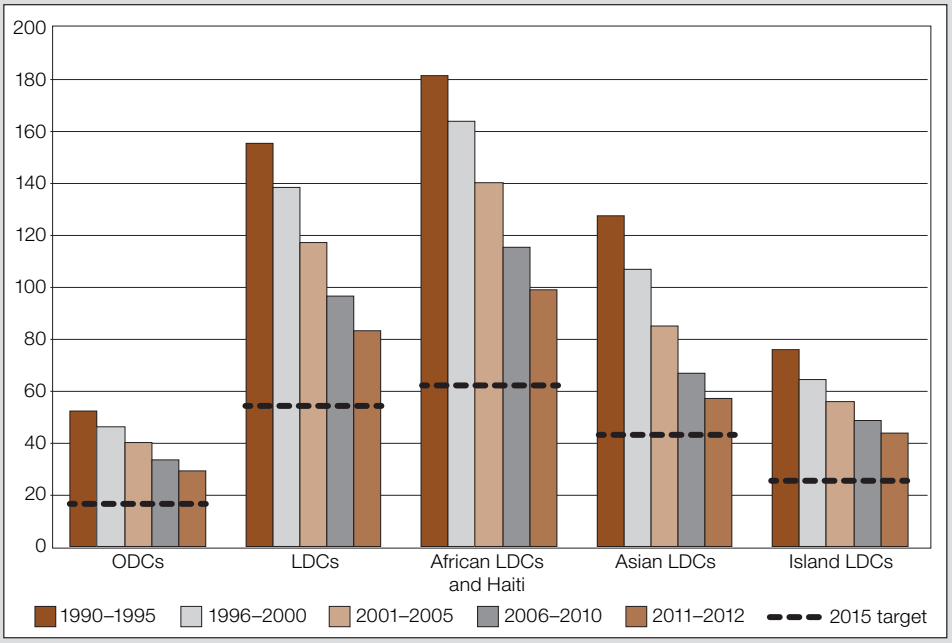
However, while the gap with ODCs has narrowed slightly since 1990–1995, the average under-five mortality rate in LDCs remains nearly three times the average for ODCs, with, on average, around one in twelve children born in an LDC dying before their fifth birthdays.

The average maternal mortality ratio has fallen by nearly half in LDCs.

f. Maternal health

The average maternal mortality ratio per 100,000 live births has fallen by nearly half in LDCs, from 792 in 1990 to 429 in 2010. Again, this is significantly

Chart 11. Under-five mortality rate 1990–2012
(Deaths per 1,000 live births)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Note: Unweighted averages.The dotted lines reflect the MDG target of reducing infant mortality by two thirds by 2015 for each country group.

faster than for ODCs, where the decrease was nearly one third (from 186 to 126), but it is nevertheless well short of the rate of improvement required to achieve the new target of a reduction by three quarters. While the maternal mortality ratio in island LDCs has converged rapidly towards the average for ODCs, the average ratio in Asian LDCs remains more than double that of the ODCs, and the average ratio in African LDCs and Haiti is four times that of the ODCs (chart 12).

There has been an observable decline in the prevalence of HIV/AIDS in LDCs since 2000.

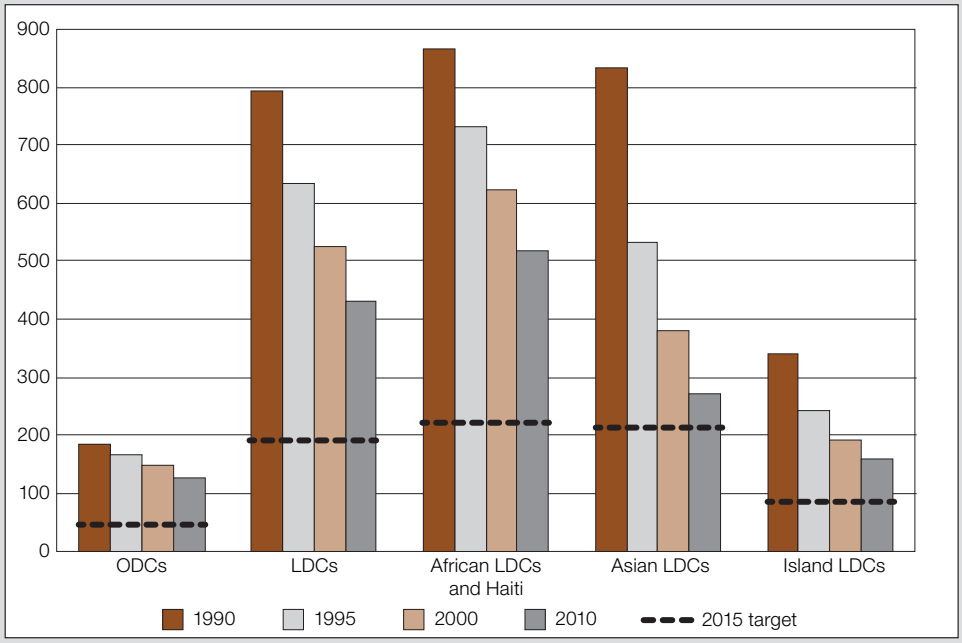
MDG 5 also includes universal access to reproductive health (added to the list in 2005). While data are limited, the unmet need for contraception among married women aged 15–49 years remains between 15 and 35 percent in most LDCs. In no country has the figure fallen sufficiently to reach zero by 2015, and in some cases it has increased in recent years (e.g. Mozambique, Nepal and the United Republic of Tanzania).

g. HIV/AIDS

MDG 6 includes reversing the spread of HIV/AIDS by 2015 and ensuring access to antiretroviral therapy (ART) for all those who need it by 2010. There has been an observable decline in the prevalence of HIV/AIDS in LDCs since 2000, as in the developing world as a whole, reflecting improvements in access to treatment, nutrition, medical practices and condom use (chart 13). However, despite recent improvements, the goal of universal access to ART remains far from achieved even after the target date of 2010: in no LDC do even 90 per cent of people with advanced HIV infection have access to ART, and in only three countries (Cambodia, Rwanda and Zambia) is the proportion above 75 per cent. In the majority of countries for which data are available, the figure is below 50 per cent, and in seven countries (Afghanistan, Comoros, Bhutan, Madagascar, Somalia, South Sudan and Yemen) it is less than 15 per cent.

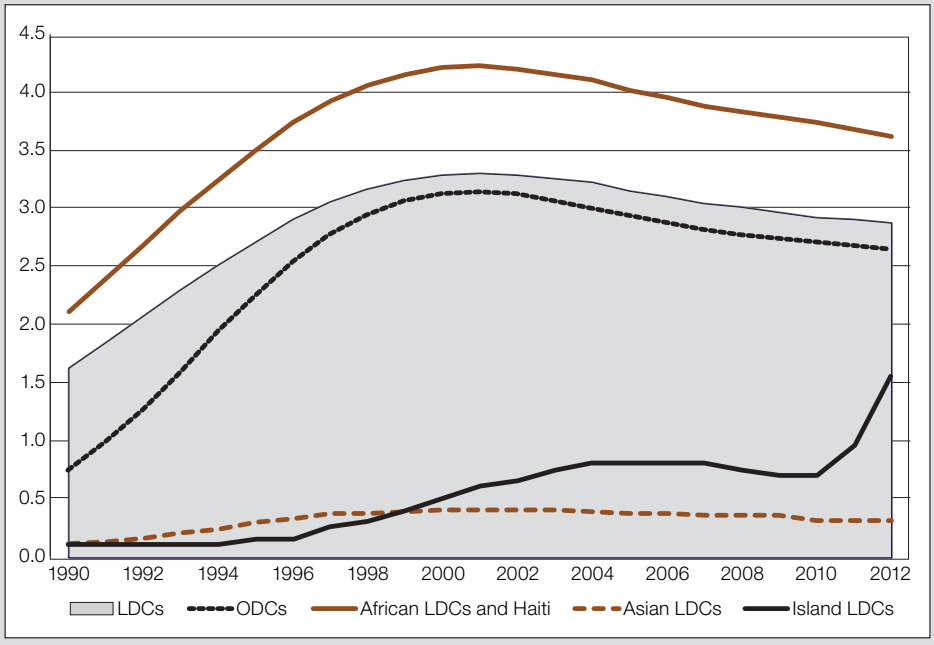
Despite recent improvements, the goal of universal access to ART remains far from achieved even after the target date of 2010.

Chart 12. Maternal mortality ratio, 1990–2010
(Maternal deaths per 100,000 live births)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Note: Modelled estimate of maternal mortality ratio of women aged 15–49 years. Unweighted averages.
The dotted lines reflect the MDG target of reducing maternal mortality by three quarters by 2015 for each LDC group.

Chart 13. Proportion of the population with HIV in LDCs and ODCs, 1990–2012
(Per cent of total 15–49-year-olds)



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Notes: Unweighted averages.The increase for island LDCs in the period 2010–2012 reflects a rise in the estimate for Comoros, accentuated by the absence of data for most other countries in the group.

The vulnerability of LDCs' health system has been sharply highlighted by the spread of the Ebola virus in West Africa in 2014, which could jeopardize or even reverse the achievements of several LDCs in the region in terms of human and economic development.

h. Water and sanitation

Apart from the direct benefits of improved water and sanitation services, they can also contribute to human development, helping to lower infant mortality and increase school attendance and educational attainment (DFID, 2007). However, climate change will present an increasing challenge to water supply in the coming decades (IPCC, 2014), making the achievement of water-related SDGs even more challenging.

Access to an improved water source in LDCs increased but still falls short of the rate of improvement needed.

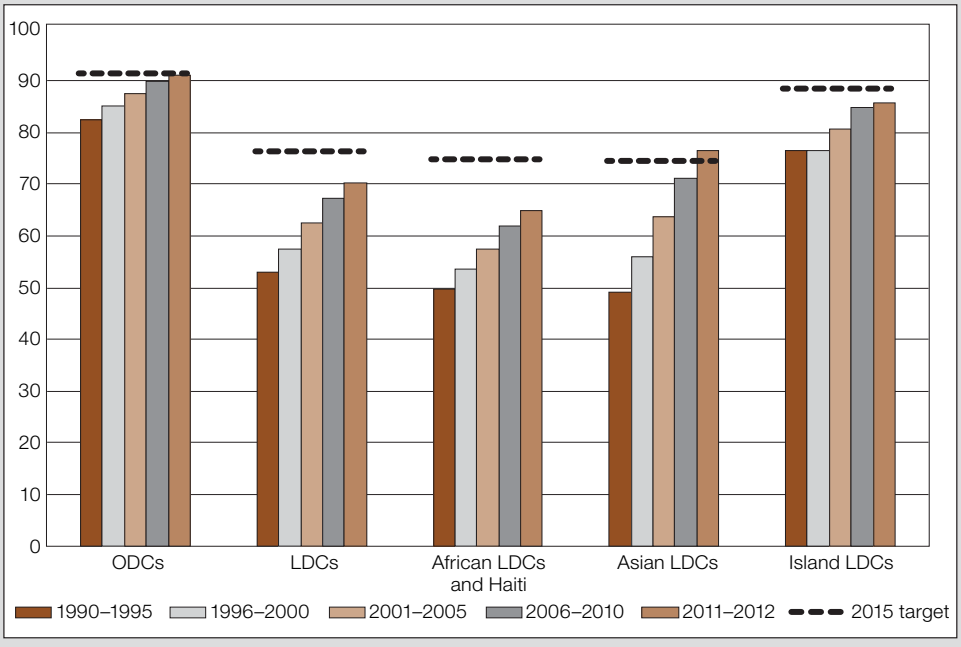
Average access to an improved water source in LDCs increased from 54 per cent in 1990–1995 to 69 per cent in 2011–2012. Still, this falls short of the rate of improvement needed to halve the proportion of the population without such access by 2015, which would require an increase to 81 per cent. However, Asian LDCs have performed substantially better than the average, and are close to achieving the goal. Overall, ODCs are also on track to achieve the goal, with average access having increased from 82 per cent to 90 per cent (chart 14).

However, Asian LDCs have performed substantially better than the average, and are close to achieving the goal.

LDCs have also made substantial progress on sanitation, but remain further from the goal of halving the proportion of the population without access. Average access increased from 22 per cent in 1990 to 36 per cent in 2012, but this is little more than one third of the increase required to meet the goal, and the average level of access remains less than half the average for ODCs (76 per cent) (chart 15). Again, the Asian LDCs have performed much better, nearly tripling access; but they too are likely to fall short of the goal. In both water and, particularly,

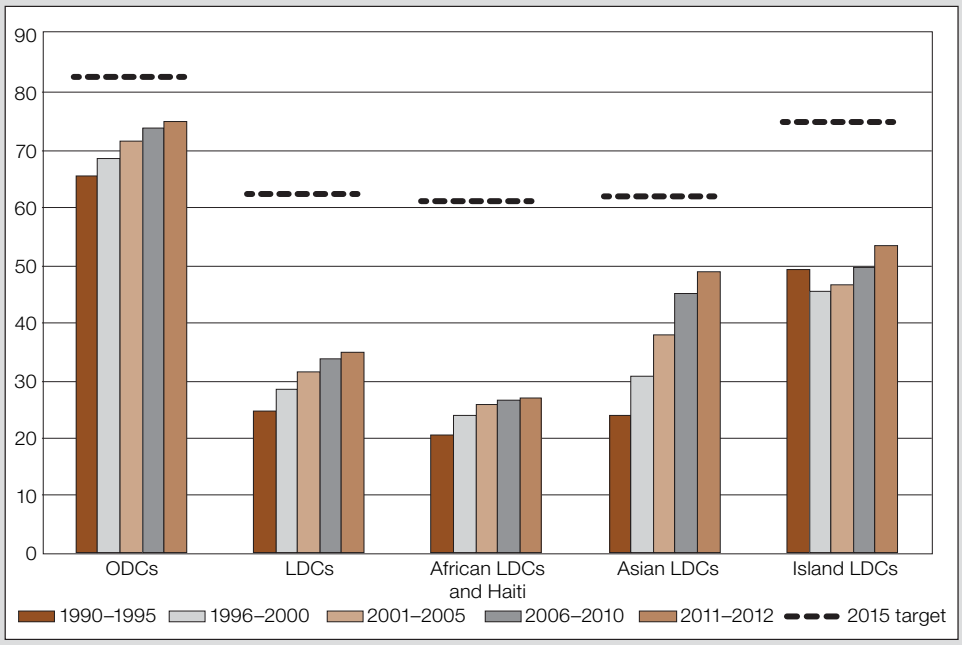
LDCs have also made substantial progress on sanitation, but remain further from the goal.

Chart 14. Per cent of the population in LDCs and ODCs with improved access to water sources, 1990–2012



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Note: Unweighted averages. The dotted lines reflect the MDG target of halving the proportion of the population without access to an improved water source by 2015 for each LDC group.

Chart 15. Per cent of the population in LDCs and ODCs with access to sanitation facilities, 1990–2012



Source: UNCTAD secretariat calculations, based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Note: Unweighted averages. The dotted lines reflect the MDG target of halving the proportion of the population without access to improved sanitation by 2015 for each LDC group.

sanitation, there are wide rural-urban gaps in access, especially in African LDCs. On average, only 18 per cent of the people in rural areas of African LDCs and Haiti have access to sanitation, which is less than half the proportion in urban areas.

Progress has generally been greater for goals which rely more on public service provision and donor support than for goals which depend primarily on household incomes.

3. Progress towards reaching MDG targets

Table 8 presents a country-by-country assessment of LDCs' performance against selected MDG targets, based on an extrapolation of the observed rate of improvement since 1990 until 2015.

Most LDCs are off track on the majority of MDGs.

As shown in table 9, progress has generally been greater for goals which rely more on public service provision and donor support than for goals which depend primarily on household incomes. Based on the assessment method described in the notes to the table, the average scores for poverty and undernutrition are 2.7–2.8 out of a possible 4, compared with 3–3.3 for primary school enrolment, access to water, and maternal and under-five mortality. The worst performance is for sanitation, with an average of 2.2.

There is a marked contrast between the performance of the Asian LDCs, on the one hand, and that of the African LDCs and Haiti and island LDCs, on the other.

Most LDCs are off track on the majority of MDGs for which data are available. However, there is a marked contrast between the performance of the Asian LDCs, on the one hand, and that of the African LDCs and Haiti and island LDCs, on the other. Only one Asian LDC (Yemen) is off track on most of the targets, and one (Afghanistan) on half of the targets for which data are available. The Lao People's Democratic Republic, uniquely among LDCs, is on track to achieve all the seven goals considered here, and the five other countries in this group are on target for the majority of them.

Table 8. LDCs' progress towards achieving the Millennium Development Goals by 2015

LDCs	1.a Poverty $1.25 per day	1.c Proportion of under-nourished population	2.a Net enrolment ratio in primary education	4.a Under-five mortality rate	5.a Maternal mortality rate	7.c Proportion of population using improved drinking water source	7.d Proportion of population using improved sanitation facilities
Afghanistan				Medium progress	Achieved or on track	Achieved or on track	Low progress
Angola	Low progress	Achieved or on track	Medium progress	Low progress	Achieved or on track	Low progress	Achieved or on track
Bangladesh	Achieved or on track	Achieved or on track		Achieved or on track	Achieved or on track	Medium progress	Stagnation/reversal
Benin	Stagnation/reversal	Achieved or on track	Achieved or on track	Medium progress	Medium progress	Achieved or on track	Low progress
Bhutan	Achieved or on track		Medium progress	Achieved or on track	Achieved or on track	Achieved or on track	Low progress
Burkina Faso	Achieved or on track	Stagnation/reversal	Medium progress	Medium progress	Medium progress	Achieved or on track	Low progress
Burundi	Low progress	Stagnation/reversal	Achieved or on track	Medium progress	Medium progress	Low progress	Low progress
Cambodia	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Medium progress
Central African Rep.	Medium progress	Achieved or on track	Low progress	Low progress	Low progress	Medium progress	Medium progress
Chad	Medium progress	Achieved or on track	Low progress	Low progress	Medium progress	Low progress	Low progress
Comoros	Stagnation/reversal	Stagnation/reversal	Low progress	Medium progress	Medium progress	Achieved or on track	Medium progress
Dem. Rep. of the Congo	Stagnation/reversal		Stagnation/reversal	Low progress	Low progress	Low progress	Low progress
Djibouti	Achieved or on track	Achieved or on track	Low progress	Medium progress	Medium progress	Achieved or on track	Stagnation/reversal
Equatorial Guinea			Stagnation/reversal	Medium progress	Achieved or on track	Stagnation/reversal	Stagnation/reversal
Eritrea		Low progress	Low progress	Achieved or on track	Achieved or on track	Medium progress	Low progress
Ethiopia	Achieved or on track	Low progress	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Low progress
Gambia	Achieved or on track	Low progress	Medium progress	Achieved or on track	Medium progress	Achieved or on track	Low progress
Guinea	Achieved or on track	Low progress	Medium progress	Achieved or on track	Medium progress	Achieved or on track	Low progress
Guinea-Bissau	Stagnation/reversal	Achieved or on track	Medium progress	Medium progress	Medium progress	Achieved or on track	Low progress
Haiti	Stagnation/reversal	Low progress		Medium progress	Medium progress	Low progress	Low progress
Kiribati		Low progress	Achieved or on track	Medium progress	Medium progress	Medium progress	Low progress
Lao People's Dem. Rep.	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track
Lesotho	Medium progress	Low progress	Low progress	Stagnation/reversal	Low progress	Stagnation/reversal	Low progress
Liberia	Stagnation/reversal	Low progress	Stagnation/reversal	Achieved or on track	Medium progress	Achieved or on track	Low progress
Madagascar	Stagnation/reversal	Stagnation/reversal	Low progress	Achieved or on track	Medium progress	Medium progress	Low progress
Malawi	Medium progress	Achieved or on track	Achieved or on track	Achieved or on track	Medium progress	Achieved or on track	Medium progress
Mali	Achieved or on track	Achieved or on track	Medium progress	Medium progress	Medium progress	Achieved or on track	Low progress
Mauritania	Achieved or on track	Achieved or on track	Medium progress	Medium progress	Medium progress	Medium progress	Low progress
Mozambique	Medium progress	Medium progress	Achieved or on track	Achieved or on track	Achieved or on track	Low progress	Low progress
Myanmar				Medium progress	Achieved or on track	Achieved or on track	Achieved or on track
Nepal	Achieved or on track	Medium progress	Low progress	Achieved or on track	Achieved or on track	Achieved or on track	Medium progress
Niger	Medium progress	Achieved or on track	Medium progress	Achieved or on track	Medium progress	Medium progress	Low progress
Rwanda	Low progress	Achieved or on track	Achieved or on track	Achieved or on track	Achieved or on track	Low progress	Achieved or on track
Sao Tome and Principe	Low progress	Achieved or on track	Achieved or on track	Medium progress	Medium progress	Achieved or on track	Low progress
Senegal	Achieved or on track	Stagnation/reversal	Medium progress	Achieved or on track	Medium progress	Medium progress	Medium progress
Sierra Leone	Low progress	Medium progress		Medium progress	Medium progress	Medium progress	Stagnation/reversal
Solomon Islands		Achieved or on track	Medium progress	Low progress	Medium progress	Low progress	Low progress
Somalia				Low progress	Medium progress	Low progress	Low progress
Sudan (former)	Achieved or on track	Low progress				Stagnation/reversal	Stagnation/reversal
Timor-Leste	Achieved or on track	Low progress	Achieved or on track	Achieved or on track	Achieved or on track	Medium progress	Low progress
Togo	Low progress	Achieved or on track	Achieved or on track	Medium progress	Low progress	Medium progress	Stagnation/reversal
Tuvalu				Medium progress		Achieved or on track	Medium progress
Uganda	Achieved or on track	Stagnation/reversal	Achieved or on track	Achieved or on track	Medium progress	Achieved or on track	Low progress
United Rep. of Tanzania	Low progress	Stagnation/reversal	Achieved or on track	Achieved or on track	Medium progress	Stagnation/reversal	Low progress
Vanuatu		Medium progress	Achieved or on track	Achieved or on track	Medium progress	Achieved or on track	Medium progress
Yemen	Low progress	Stagnation/reversal	Medium progress	Medium progress	Medium progress	Stagnation/reversal	Achieved or on track
Zambia	Stagnation/reversal	Stagnation/reversal	Achieved or on track	Achieved or on track	Medium progress	Medium progress	Stagnation/reversal

Source: UNCTAD secretariat calculations, based on data from UN/DESA, Statistics Division, *Millennium Indicators Database* (available at: http://mdgs.un.org/unsd/mdg/Default.aspx, accessed September 2014), except for the poverty indicators, which are taken from World Bank, *PovCalNet* (http://iresearch.worldbank.org/PovcalNet/index.htm, accessed September 2014).

Note: For each country and for each assessed MDG target, progress towards its achievement is evaluated according to the following methodology. Based on the level of the indicator in 1990, a target value is projected for 2015 which is compatible with reaching the relevant MDG target (e.g. halving the poverty rate, or reaching a net primary enrolment rate of 100 per cent). A linear trend is interpolated, based on the initial value in 1990 and on the MDG-compatible target value of each indicator. The country's performance for each target is then assessed based on the ratio of the difference between the actual value of the indicator in year y (the latest year for which it is available) and its value in 1990, and the difference between MDG-compatible value in the same year y and the value in 1990. The ratio is then converted to the following categories:
Achieved or on track: MDG-compatible target achieved at 90% or more. *Medium progress:* 50% to 89% of the MDG-compatible target achieved.
Low progress: 6% to 49% of the MDG-compatible target achieved. **Stagnation/reversal:** less than 6% of the MDG-compatible target achieved.

Conversely, only one of the seven island LDCs (Timor-Leste) is on track on a majority of the targets. Of the 32 LDCs in the Africa and Haiti group, only four (Ethiopia, Malawi, Rwanda and Uganda) are on track for a majority of the goals, while five are off track on all the goals for which data are available (the Democratic Republic of the Congo, Haiti, Lesotho, Sierra Leone and Somalia). Asia's relative performance is strongest on poverty, maternal mortality and sanitation, and weakest on primary school enrolment, the one target on which another group (island LDCs) performs better.

The pattern among the LDCs grouped by major exports is much less clear.

The pattern among the LDCs grouped by major exports is much less clear. Exporters of manufactured goods perform best on poverty reduction, and are second only to exporters of agricultural produce on nutrition (although LDCs exporting agricultural produce show a particularly weak performance on poverty reduction). Across the other goals, services exporters perform the best overall, matched by mixed exporters, except with respect to under-five mortality; but both show weak performance for poverty reduction and nutrition. Overall, the performance of fuel exporters is somewhat below average at 2.5, but that of all other export groups is between 2.8 and 3.0.

The failure of most LDCs to attain most of the MDGs therefore raises questions about the adequacy of international support to development in these countries.

It is only among exporters of manufactured goods that a majority of countries have achieved more than half of the goals for which data are available, but within this group, there is a very strong divergence between Asian and non-Asian countries. The Asian exporters of manufactures (Bangladesh, Bhutan and Cambodia) average 3.6 across all the goals, second only to Asian mixed exporters (Lao People's Democratic Republic and Myanmar, at 3.9) among all region/export combinations. By contrast, the two non-Asian exporters of manufactures (Haiti and Lesotho) are not only among the five LDCs which are off track on all the goals, but also have the lowest average score among region/export combinations, at 2.1. Lesotho shows low progress or stagnation/reversal on six out of seven goals, as does Haiti on four out of six. Asian LDCs among mixed exporters also perform better than their non-Asian LDCs in the same category, but the one Asian fuel exporter (Yemen) performs no better overall than its counterparts, all of which are in the Africa group.[5]

Table 9. LDC average performance against selected MDG targets

	Poverty	Under-nutrition	Primary enrolment	Maternal mortality	Under-five mortality	Clean water	Sanitation	Overall
LDCs (total)	**2.79**	**2.73**	**3.05**	**3.22**	**3.28**	**3.04**	**2.23**	**2.91**
By geographic gorouping:								
African LDCs and Haiti	2.66	2.66	2.93	3.06	3.23	2.84	2.03	2.77
Asian LDCs	3.67*	3.20**	3.20**	3.88	3.63	3.50	2.88	3.47
Island LDCs	2.33***	2.67	3.50	3.17	3.14	3.43	2.43	3.06
By export specilization:								
Food and agricultural exporters	2.00**	4.00*	3.33*	3.00	2.75	3.00	2.25	2.75
Fuel exporters	2.75*	2.75*	2.25*	3.50*	2.50*	1.40	2.40	1.90
Mineral exporters	2.83	2.67	2.86	3.14	3.43	3.00	1.86	2.83
Manufactures exporters	3.20	3.00*	3.00**	3.40	3.20	2.80	2.00	2.92
Services exporters	2.75*	2.31	3.08	3.36	3.60	3.60	2.33	3.05
Mixed exporters	2.78*	2.80	3.44*	3.00	3.27	3.18	2.36	2.92

Source: As for table 2.
Notes: The table 2 entries are translated into numerical scores on a scale of 1-4 (achieved or on track = 4; medium progress = 3; low progress = 2; stagnation/reversal = 1), and the mean for each country group and goal is reported in this table. Asterisks indicate limited data availability: * = data 75–85 per cent complete; **= data 50–75 per cent complete; *** = data less than 50 per cent complete.

C. MDG 8: A global partnership for development?

After declining through most of the 1990s, ODA to LDCs increased rapidly after 2000.

As discussed in box 2, the nature of the MDGs makes them particularly difficult for LDCs to achieve. Thus LDCs' relative performance against MDG targets is as much a measure of the global community's commitment to and prioritization of LDCs' needs as it is of the performance of LDCs' individual governments. The failure of most LDCs to attain most of the MDGs therefore raises questions about the adequacy of international support to development in these countries.

Real ODA from DAC countries to LDCs fell between 2010 and 2012.

The global community's commitments in this regard were encapsulated in a single goal — MDG 8 on the global partnership for development. However, whereas the outcome goals of MDGs 1-7 included multiple and detailed quantitative targets, MDG 8 contained no more than a few broad aspirations with no specific quantified targets. The commitment to LDCs embodied in Target 8B, for example, was to "Address the special needs of the least developed countries, including: tariff- and quota-free access for LDCs' exports; enhanced programme of debt relief for heavily indebted poor countries (HIPCs), and cancellation of official bilateral debt; and more generous ODA for countries committed to poverty reduction". No reference was made either to the ODA target of 0.15-0.2 per cent of each donor's GNI for LDCs, as established in the Brussels Programme of Action and confirmed in the Istanbul Programme of Action, or to the commitment by developed countries to provide ODA equivalent to 0.7 per cent of their GNI, originally embodied in a United Nations General Assembly resolution in 1970 (with a target date of 1975)[6] and repeated regularly in subsequent decades.

This section considers progress in international support for LDCs in the areas of aid, debt relief and trade.

1. Official development assistance

Financial development assistance to LDCs from non-DAC members tripled between 2000 and 2012, but it remains comparatively small.

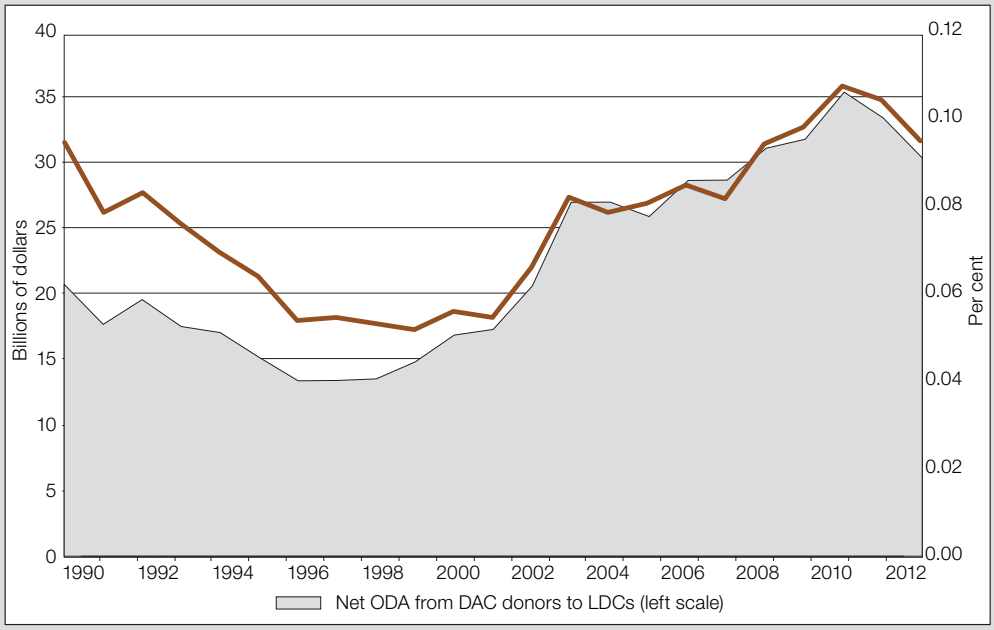
After declining through most of the 1990s, ODA to LDCs increased rapidly after 2000, playing an important countercyclical role during the financial crisis. However, having more than doubled in real terms between 2000 and 2010, it began to decline in 2011 (see section D.2 of chapter 1 of this Report). ODA disbursements to LDCs were reduced in nominal terms by 17 of the 24 members of the OECD Development Assistance Committee (DAC) between 2011 and 2012, while EU DAC countries reduced their disbursements by 20 per cent overall, largely as part of austerity measures. Consequently, real ODA from DAC countries to LDCs fell by 14 per cent between 2010 and 2012.

The sectoral composition of ODA changed markedly between 2000 and 2011.

While there was a substantial rise in aid to LDCs as a percentage of donors' GNI from 2000 to 2010, reversing the rapid decline of the 1990s, it remained at just 0.09 per cent in 2012, far short of the target of 0.15 to 0.2 per cent set by the Brussels and Istanbul Programmes of Action (chart 16). As shown in table 10, only five DAC member countries allocated 0.20 per cent of their GNI as aid to LDCs in 2012 (Denmark, Ireland, Luxembourg, Norway and Sweden), and three between 0.15 and 0.20 per cent (Finland, Netherlands and the United Kingdom). Had all DAC donors met the 0.15–0.2 per cent target in 2012, annual ODA to LDCs would have been between $26.6 billion and $46.1 billion higher, an increase of 66–114 per cent of the amount actually provided.

Financial development assistance to LDCs from non-DAC members such as China and India tripled between 2000 and 2012, but it remains comparatively small at $710 million, partly reflecting the smaller share of LDCs in these countries'

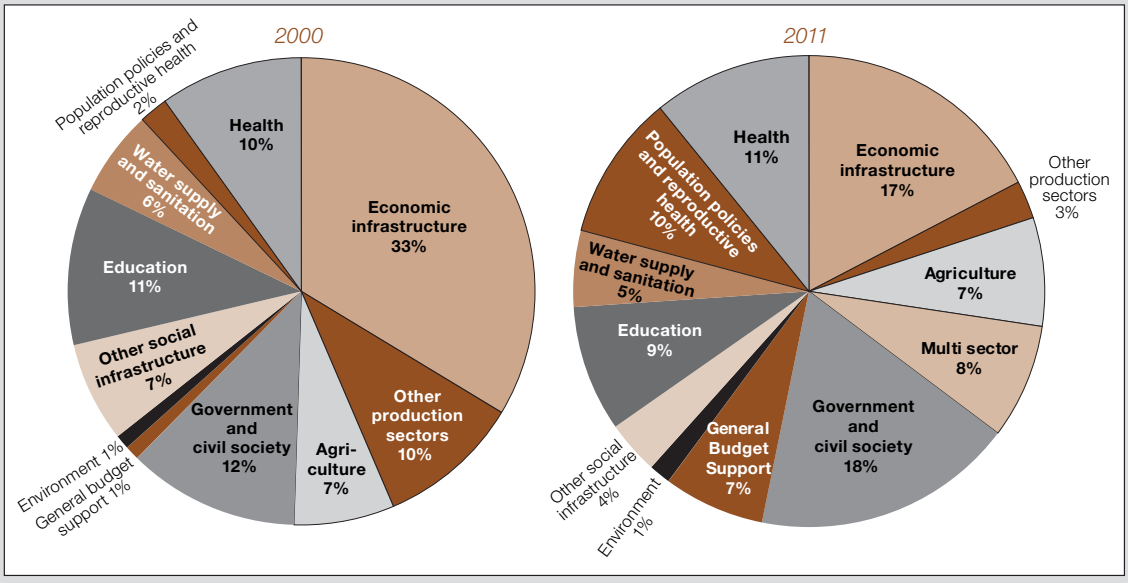
Chart 16. Net ODA from DAC donors to LDCs, 1990–2012



Source: UNCTAD secretariat calculations, based on data from United Nations Statistics Division, UNdata database (accessed August 2014); OECD, DAC database (accessed August 2014).
Notes: Includes DAC members' imputed share of multilateral ODA (see http://www.oecd.org/development/stats/oecdsmethodologyforcalculatingsectoralimputedmultilateralaid.htm).

Chart 17. Country programmable aid to LDCs by sector, 2000 and 2011

(Per cent)



Source: UNCTAD secretariat calculations, based on data from OECDstat database (accessed August 2014).
Notes: Country Programmable Aid (CPA) is defined as total ODA disbursements, except those which are intrinsically unpredictable (humanitarian aid and debt relief), which do not entail cross-border transactions (e.g. administrative costs and research in donor countries), or which do not form part of cooperation agreements between governments (e.g. food aid, decentralized cooperation or core funding of NGOs).

Table 10. Net ODA disbursements from DAC countries to LDCs 2001–2002 2011 and 2012

	2001–2002			2011			2012			2012 shortfall ($million) from	
	$ million	*Per cent of donor's total*	*Per cent of donor's GNI*	*$ million*	*Per cent of donor's total*	*Per cent of donor's GNI*	*$ million*	*Per cent of donor's total*	*Per cent of donor's GNI*	*0.15 per cent of GNI*	*0.2 per cent of GNI*
Australia	238	25.6	0.06	1 373	27.6	0.09	1 639	30.3	0.11	596	1 341
Austria	160	28.3	0.09	296	26.6	0.07	244	22.0	0.06	365	568
Belgium	349	36.1	0.15	1 064	37.9	0.20	704	30.4	0.14	50	302
Canada	359	20.3	0.05	1 943	35.6	0.11	1 945	34.4	0.11	707	1 591
Denmark	571	34.8	0.35	1 090	37.2	0.32	1 004	37.3	0.31	-	-
Finland	144	33.6	0.11	461	32.8	0.17	445	33.7	0.18	-	49
France	1 558	31.9	0.11	3 616	27.8	0.13	2 533	21.1	0.1	1 267	2 533
Germany	1 364	26.4	0.07	3 675	26.1	0.10	3 678	28.4	0.11	1 337	3 009
Greece	45	18.3	0.04	67	15.8	0.02	50	15.3	0.02	326	452
Iceland	5	41.6	0.06	12	45.4	0.10	12	45.1	0.1	6	12
Ireland	189	55.0	0.21	479	52.4	0.27	418	51.7	0.24	-	-
Italy	885	43.3	0.08	1 521	35.2	0.07	701	25.6	0.04	1 928	2 805
Japan	2 058	21.5	0.05	4 115	38.0	0.07	4 640	43.8	0.08	4 060	6 960
Korea Republic of[1]				474	35.8	0.04	579	36.2	0.05	1 158	1 736
Luxembourg	48	33.6	0.26	152	37.1	0.36	146	36.5	0.37	-	-
Netherlands	1 119	34.3	0.28	1 457	23.0	0.17	1 166	21.1	0.15	-	389
New Zealand	33	28.2	0.07	123	28.9	0.08	144	32.0	0.09	96	175
Norway	575	37.5	0.32	1 524	32.1	0.31	1 382	29.1	0.27	-	-
Portugal	174	59.0	0.16	345	48.7	0.15	177	30.4	0.09	118	216
Spain	300	17.4	0.05	1 075	25.8	0.07	483	23.7	0.04	1 328	1 931
Sweden	570	30.9	0.25	1 939	34.6	0.35	1 542	29.4	0.29	-	-
Switzerland	267	28.9	0.10	798	26.1	0.12	710	23.2	0.11	258	581
United Kingdom	1 534	32.5	0.11	5 195	37.6	0.21	4 615	33.2	0.19	-	243
United States	2 638	21.2	0.03	11 786	38.1	0.08	11 419	37.2	0.07	13 050	21 207
Total DAC	**15 184**	**27.4**	**0.06**	**44 579**	**33.3**	**0.10**	**40 375**	**32.0**	**0.09**	**26 650**	**46 100**
of which: DAC EU	9 010	32.2	0.11	22 431	31.1	0.14	17 907	28.0	0.12	6 720	12 497

Source: ODA data from OECD *Query Wizard for International Development Statistics* (QWIDS) database (http://stats.oecd.org/qwids/); GNI data from World Bank *World Development Indicators* database (accessed August 2014).

Notes: Includes imputed shares of multilateral ODA.

[1] The Republic of Korea joined the DAC only in 2010. Its ODA to LDCs in 2001–2002 was $63 million representing 23 per cent of total ODA and 0.01 per cent of its GNI.

disbursements (14 per cent in 2012, compared with the DAC average of 32 per cent). During the period 2000–2012, African LDCs and Haiti accounted for 55 per cent of total non-DAC ODA flows to LDCs, Asian LDCs for 45 per cent and island LDCs for 1 per cent.[7]

As shown in chart 17, the sectoral composition of ODA changed markedly between 2000 and 2011. This appears to reflect an effort by donors to reconcile their reluctance to increase aid to the extent implied by the 0.15-0.2 per cent target with a desire to contribute to the achievement of (some of) the MDGs. The total share of ODA going to the health sector (including population policies and reproductive health) increased from 12 per cent to 21 per cent, while the combined share going to economic infrastructure and non-agricultural productive sectors — the areas contributing most directly to structural economic transformation — fell by more than half, from 43 per cent to 20 per cent. While the increase in the share of ODA allocated to health has undoubtedly contributed to progress towards achieving the health MDGs, and to improvements in health care more generally, it has also accentuated the shortfall in aid for the development of LDCs' productive capacities, to the detriment of long-term poverty reduction.

The geographical distribution of aid among LDCs has been skewed by geopolitical factors.

Equally, the geographical distribution of aid among LDCs has been skewed by geopolitical factors. For example, Afghanistan's share in total DAC disbursements to LDCs increased from 1 per cent of the total in 2000 to around 20 per cent in 2012, while the Democratic Republic of the Congo saw a major spike in disbursements in 2011, coinciding with a presidential election considered by donors to be of particular importance to its political future and stability. Together, the Democratic Republic of the Congo and Afghanistan accounted for one third of DAC members' total ODA disbursements (and 27 per cent of ODA from all donors) to LDCs in 2011.[8]

Domestic resources remain insufficient to meet their development needs, and neither remittances nor FDI inflows are an effective substitute.

Despite increasing inflows of remittances and FDI (see chapter 1, section D of this Report), and improved domestic resource mobilization, LDCs as a group remain heavily dependent on ODA. Domestic resources remain insufficient to meet their development needs, and neither remittances nor FDI inflows are an effective substitute. ODA remains the primary source of external financial flows to LDCs, representing 43 per cent of these countries' total external financial resources in 2012. While ODA to LDCs fell from an average of 12.6 percent of their GNI in 1990 to 6.8 per cent in 2012, it remains significantly higher than for ODCs. In 2012, 24 LDCs received ODA in excess of 10 per cent of their GNI, including all island LDCs and 16 of the 33 LDCs in the Africa and Haiti group. However, all the Asian LDCs had shares below 10 per cent, except for Afghanistan where it was 32 per cent. By comparison, total public revenues excluding ODA in LDCs are typically 10–20 per cent of GDP. While ODA should not be seen as a panacea for the LDCs' investment gap and economic problems, it will, nevertheless, remain a key source of financing, particularly for public investment, in many of these countries.

ODA remains the primary source of external financial flows to LDCs.

LDCs urgently need to scale up investment in economic infrastructure and productive capacities if they are to achieve the structural transformation that will be needed to meet future SDGs. However, while they remain heavily dependent on ODA to accomplish this, the prospects for a substantial increase of ODA in the near future, let alone fulfilment of the 0.15-0.2 per cent commitment, appear limited so long as most of the traditional donors remain constrained by austerity policies. Increasing financial development assistance from non-traditional donors such as China and India may reduce the importance of traditional North-South ODA relationships, as China, for example, increasingly targets its concessional loans to the provision of infrastructure, in parallel with FDI for the exploitation of mineral resources in some African LDCs. However, ODA from non-DAC members is growing from a very low base, and will not contribute substantially to filling the gap. This is indicative of a bleak choice between continued underinvestment, which would jeopardize development, or increased non-concessional borrowing, which would threaten financial sustainability by increasing the risk of renewed debt problems.

LDCs urgently need to scale up investment in economic infrastructure and productive capacities if they are to achieve the structural transformation that will be needed to meet future SDGs.

Even with fiscal pressure on overall ODA budgets, donors could and should increase the share of LDCs in their total ODA. Ireland, for example, allocates more than 50 per cent of its total ODA to LDCs. For around half of DAC donors, this would be sufficient to reach the 0.15 per cent target, although the combined shortfall of the other donors would remain very substantial ($16–$31 billion). Together with the focus of attention on human development in the post-2015 agenda and the associated SDGs, a continued shortfall on this scale would likely shift the balance of ODA still further away from economic infrastructure and productive sectors, thereby intensifying the adverse effects on economic development.

Even with fiscal pressure on overall ODA budgets, donors could and should increase the share of LDCs in their total ODA.

Increasing investment in a context of inadequate ODA flows will require LDCs to improve their domestic resource mobilization and public investment in implementation and planning, and to align investment (public and private, domestic and external) with national development strategies. This will mean their

taking a proactive role in ensuring that ODA reflects their national development objectives and reasserting their priorities as outlined in the Istanbul Plan of Action for the Least Developed Countries for the Decade 2011-2020 (IPoA).

2. Debt relief

Substantial further progress has been made on debt relief. However, these actions fall substantially short of a comprehensive solution to LDCs' debt problems.

Debt relief is covered in MDG target 8D, to "deal comprehensively with the debt problems of developing countries through national and international measures, in order to make debt sustainable in the long term", and target 8B, which refers specifically to cancellation of official bilateral debts of LDCs. Substantial further progress has been made on debt relief since 2000, both under the 1994 Heavily Indebted Poor Countries Initiative (through which limited debt cancellation had been delivered in the 1990s) and under the 2005 Multilateral Debt Relief Initiative.

However, these actions fall substantially short of a comprehensive solution to LDCs' debt problems: in August 2014, 10 of the 42 LDCs for which assessments had been undertaken were at high risk of debt distress (Afghanistan, Burundi, Central African Republic, Chad, Comoros, the Democratic Republic of the Congo, Djibouti, Haiti, Kiribati and Sao Tome and Principe) while one (Sudan) was already in debt distress (IMF, 2014).

3. Trade regimes

Since export earnings are a critical engine of development for LDCs, participation in international trade on a fair and equitable basis is essential for their attainment of the MDGs.

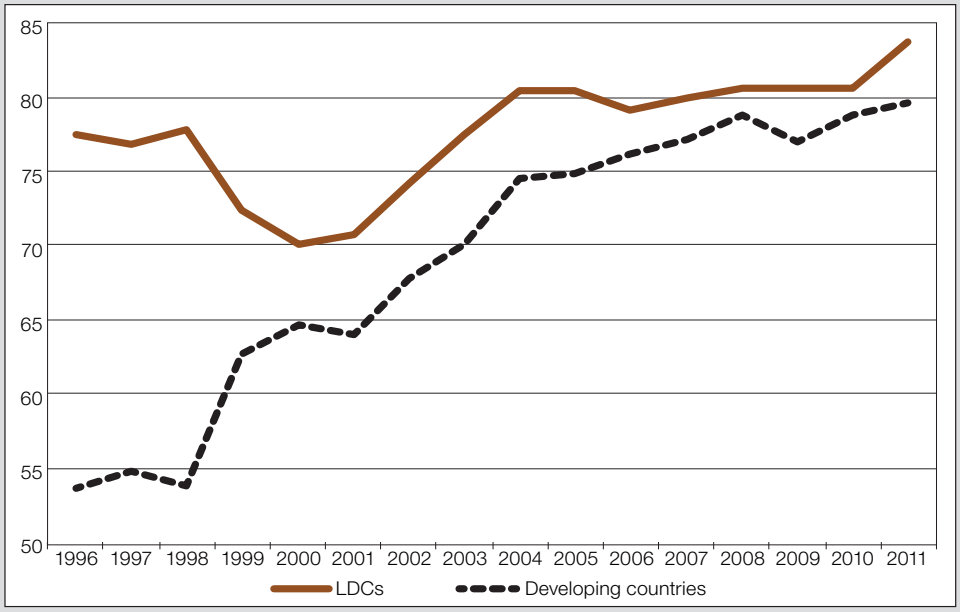
Since export earnings are a critical engine of development for LDCs, participation in international trade on a fair and equitable basis is essential for their attainment of the MDGs. MDG 8 includes commitments to "develop further an open, rule-based, predictable, non-discriminatory trading and financial system", and to provide "tariff- and quota-free access for LDCs' exports". As shown in charts 13 and 14, duty-free market access of LDCs to developed-country markets has improved substantially since 2000 (partly reflecting improvements in Europen Union (EU) rules of origin which became operational in January 2011), while average tariffs have also been reduced.

Market access alone is insufficient. Additional support in several areas will be essential if trade is to contribute substantially to LDCs' attaining the planned SDGs.

However, the further opening up of the international trade system has resulted in substantially greater increases in duty-free access and reductions in tariffs for ODCs than for LDCs, implying that trade preferences towards LDCs relative to ODCs have been eroded. The difference between the proportion of LDC exports (excluding oil and arms) entering developed-country markets duty-free and the corresponding figure for ODCs has fallen from 20–25 percentage points in 1996–1998 to 2–3 percentage points since 2006. Similarly, the difference between average tariffs for LDC and ODC exports in developed-country markets has fallen across all product categories, with the greatest reductions for clothing (by two thirds) and textiles (by half), which are of particular importance to some LDCs. Preference erosion runs counter to what is explicitly stated in the World Trade Organization's (WTO) Uruguay Round Agreement on Measures in Favour of Least Developed Countries, that "continued preferential access [for LDCs] remains an essential means for improving their trading opportunities" (WTO, 1993).

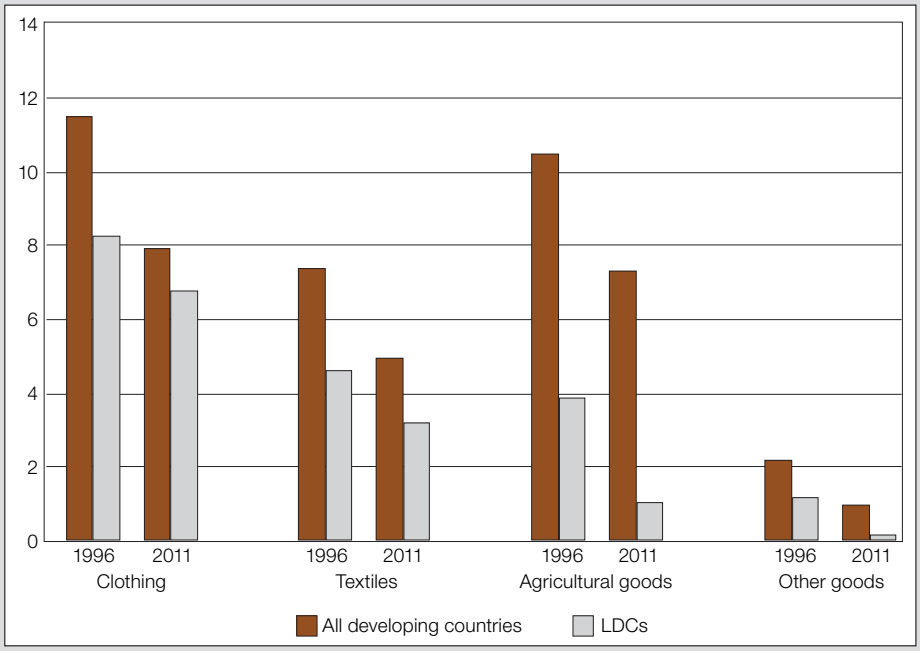
Preferential trade arrangements, including the Generalized System of Preferences (GSP), could enhance opportunities for expanding and diversifying LDC exports through more liberal, simple and transparent rules of origin and avoidance of restrictive conditionalities. However, market access alone is insufficient, particularly if preference erosion continues. For improved market access to be translated into the broadly based economic and social

Chart 18. Proportion of developed country imports (excluding oil and arms) from developing countries and LDCs admitted duty-free, 1996–2011
(Per cent)



Source: UNDP (2013).

Chart 19. Average tariffs levied by developed countries on key products exported by all developing countries and by LDCs, 1996–2011, selected years
(Per cent ad valorem)



Source: UNDP (2013).
Note: Based on fixed 1999–2001 export structure.

improvements needed to meet the planned SDGs, greater efforts will be needed to help increase the capacity of LDCs to produce competitive exports and exploit the opportunities provided by the increased market access, while maximizing benefits in terms of employment, income generation and public revenues. This will be particularly challenging in countries with geographical disadvantages (i.e. the small island and landlocked economies, and those distant from large and growing markets). It will also be important to ensure that producers have sufficient capabilities to comply (and regulatory authorities sufficient capacity to police compliance) with product standards in major markets. Additional support in these areas will be essential if trade is to contribute substantially to LDCs' attaining the planned SDGs.

The progress of the LDCs since 1990 in the areas targeted by the MDGs have been quite remarkable. However, the great majority will fail to meet most of them.

D. Conclusions

By any historical standard, the progress of the LDCs since 1990 in the areas targeted by the MDGs have been quite remarkable. But only one LDC (the Lao People's Democratic Republic) is on track to meet all of the seven MDGs assessed in this chapter, while the great majority will fail to meet most of them. Only among Asian LDCs are a majority on track to meet most of the goals.

Major donors have fallen short of their commitments on ODA, both to LDCs and to developing countries as whole.

This is partly a reflection of limited progress on MDG 8, which aspired to create a "global partnership for development". Major donors have fallen short of their commitments on ODA, both to LDCs and to developing countries as whole; LDC debt problems have not been dealt with comprehensively, leaving one in debt distress and several more at high risk; LDCs' trade preferences relative to ODCs, recognized in WTO Agreements as essential to improving their trading opportunities, have been seriously eroded; and the global economic and financial architecture has proved unable to prevent major global financial, food and fuel crises over the past decade.

Despite the improvements they have achieved, and their rapid economic growth, the LDCs still face formidable challenges to economic and human development.

Some LDCs — mostly in Asia — are nonetheless on track to achieve most of the MDGs, and this is greatly to their credit. Elsewhere, however, rapid growth and strongly increasing ODA have not been translated into fulfilment of the MDGs. As well as shortcomings in the international system, this partly reflects a failure of the economic model of development pursued in most LDCs. As discussed in subsequent chapters of this Report, economic growth is not the same as development, as evidenced by the failure of recent strong growth in most LDCs to bring about economic transformation and hence complete the virtuous circle essential for achieving human development goals sustainably, as discussed in chapter 3.

The goals envisaged for 2015–2030 are extraordinarily ambitious. Achieving these goals will require profound economic transformation across all LDCs.

Despite the dramatic improvements they have achieved, and their recent rapid economic growth, the LDCs still face formidable challenges to economic and human development. Nearly half the population in LDCs continues to live in extreme poverty, nearly 30 per cent of people are undernourished, and the great majority are in vulnerable employment. On average, nearly a third of their people have no access to a clean water source, and nearly two thirds have no access to sanitation facilities. One in twelve children die before their fifth birthdays, and one in four of those who survive do not attend primary school.

From this base, the goals envisaged for 2015–2030 are extraordinarily ambitious: eradicating poverty and undernutrition, decent work for all, universal primary and secondary education, universal access to water and sanitation, and elimination of preventable child deaths, all to be achieved simultaneously in all LDCs (and ODCs) in just 15 years. Achieving these goals, and sustaining

their achievement beyond 2030, will require profound economic transformation across all LDCs. This in turn will require a marked shift in emphasis in the SDGs, from a fixation on goals focused exclusively on human development outcomes to a much broader and more holistic approach, encompassing the essential means of attaining these goals sustainably. If the planned SDGs are to be achieved sustainably, they must aim at a form of development that can be sustained, not only environmentally, but also economically, financially, socially and politically.

In addition, the international community should give much greater priority than it has in its approach to the MDGs to establishing more effective partnerships with LDCs, based on mutual accountability and firmly guided by the national development plans, priorities and ambitions of LDC governments themselves.

Notes

1 These data are derived from PovcalNet, the online tool for poverty measurement developed by the Development Research Group of the World Bank. The current $1.25-a-day poverty line (at 2005 purchasing power parity (PPP)) corresponds with the earlier "$1-a-day" poverty line referred to in MDG1 (actually $1.08 per day at 1993 PPP, this having succeeded the original poverty line of $1.00 per day at 1985 PPP).

2 Data from *World Development Indicators (WDI)* database (accessed September 2014)

3 The prevalence of undernourishment indicator, developed by the Food and Agriculture Organization of the United Nations (FAO), estimates the proportion of the population with a calorie intake below the minimum necessary for an active and healthy life.

4 As noted in Section C.3 of this chapter, LDCs exporting agricultural products and food are the best performing group on this indicator.

5 There are no Asian countries among the mineral or agricultural produce and food exporters.

6 Resolution adopted by the General Assembly 2626 (XXV): International Development Strategy for the Second United Nations Development Decade (No. A/RES/25/2626). Paragraph 93 states: "Each economically advanced country will progressively increase its official development assistance to the developing countries and will exert its best efforts to reach a minimum net amount of 0.7 per cent of its gross national product at market prices by the middle of the Decade".

7 OECD, *Query Wizard for International Development Statistics* (QWIDS), available at: http://stats.oecd.org/qwids/.

8 Data from OECD, *Query Wizard for International Development Statistics* (QWIDS) *(ibid.)*.

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CHAPTER 3

From MDGs to SDGs: Reconnecting Economic and Human Development

In some respects, 2015 marks a turning point for development: a transition from a period when development efforts focused on the Millennium Development Goals (MDGs) to a period that will focus on a post-2015 development agenda covering a broader and much more ambitious set of Sustainable Development Goals (SDGs) to be achieved by 2030. The outcome of the discussions under way for such an agenda and the accompanying SDGs will play a major role in shaping the context and discourse of development over the next 15 years – a role even more prominent than that of the Millennium Development Goals (MDGs) since their adoption in 2000. A key issue will be the relationship between human development and economic development. This connection is discussed in the present chapter, as follows. Section A explains the interdependence of human and economic development, and how they relate to the MDGs and the planned SDGs. Section B defines structural transformation and sustainability, and shows how they are linked to development and the SDGs. Section C analyses the major requirements to meet the latter sustainably.

The relationship between human development and economic development is a key issue for the post-2015 development agenda.

A. The interdependence of human and economic development

1. Human development and economic development

Human development and economic development are inextricably linked. Human development, broadly defined, is the primary objective of economic development: if economic development does not improve the quality of life of people in developing countries, it would serve little purpose; and a major reason for UNCTAD's particular concern with least developed countries (LDCs) is their very low level of key elements of human development, such as household earnings, nutrition, health and education.

Economic and human development can only be met by pursuing both sets of goals together.

Equally, economic development is an essential *means* to human development. Human development depends critically on private incomes for poverty reduction. Those incomes, in turn, depend mainly on employment and wages, and on social entitlements, which, in their turn, depend largely on public expenditures and revenues. These latter are principally outcomes of economic policies and the economic development they bring (or fail to bring).

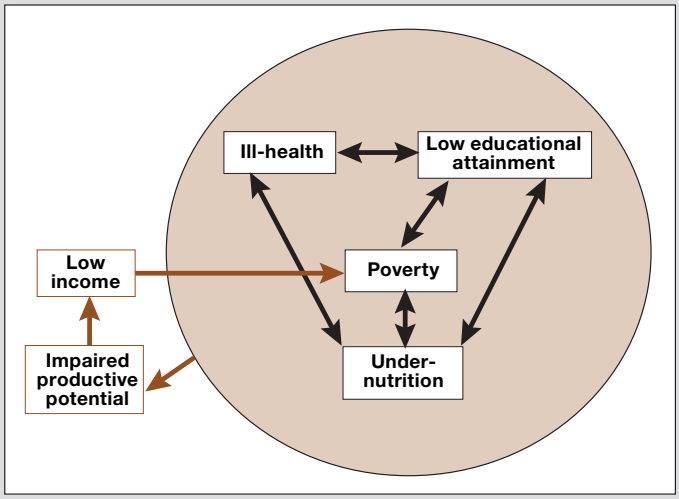
Thus economic and human development can only be met by pursuing both sets of goals together. This requires an appropriate balance, whereby policies are designed in each domain taking full account of the consequences in the other. The pursuit of economic goals without regard for the human consequences will at best limit, and at worst reverse, progress towards social goals. This was a major failing of economic policies that focused on controlling inflation and reducing external imbalances in the 1980s and 1990s (Nayyar, 2012). Equally, however, pursuing human development goals without addressing the underlying economic causes will at best result in progress being unsustainable, and may even be counterproductive in the long term.

Poverty, undernutrition, poor health and low educational attainment are part of a vicious circle which plays a key role in preventing LDCs from progressing socially and economically.

The levels of poverty, nutrition, population health and education are substantially worse in most LDCs than in the other developed countries (ODCs). This is partly because they are LDCs, but it is also an important reason why they are LDCs. Indeed, poverty, undernutrition, poor health and low educational attainment are part of a vicious circle which plays a key role in preventing LDCs from progressing socially and economically (chart 20).

People living in extreme poverty cannot afford an adequate and healthy diet, and often have poor living conditions and limited access to health services.

Chart 20. The vicious circle of economic and human underdevelopment



Source: UNCTAD secretariat.

This worsens their already poor health, which increases their rate of absence from work; and inadequate calorie and iron intake reduces workers' productivity when they are working (Popkin, 1978; Edgerton et al., 1979; Strauss, 1986; Strauss, 1993; Horton, 1999). Improved nutrition in early childhood can increase productivity and incomes substantially in adulthood, as well as improving cognitive development (Hoddinott et al., 2008). Children are kept away from school, because their families cannot afford the costs for fees, books and uniforms, nor can they afford to lose the income their children can provide by working. Access to education is often limited, particularly beyond primary level, and its quality may be relatively weak; and, even among those who go to school, poor nutrition and health increases their absence and weakens their performance (Popkin and Lim-Ybanez, 1982; Glewwe et al., 2001).

Poverty limits human development, undermines labour productivity and reduces investment, thereby weakening economic performance...

Equally, poverty, economic insecurity and poor health are serious obstacles to productive investment. Poor households have limited savings to invest, and they cannot afford to tie them up or to risk losing them. The severe consequences of any reduction in income forces households to be risk-averse, and to retain such savings as they can to maintain a minimum level of consumption in case of illness, crop failure, accidents or other misfortunes. In most African LDCs, 50–80 per cent of household savings are held in preparation for emergencies (Africa Progress Panel, 2014: 123), and when such emergencies occur, savings are depleted and productive assets may be sold. Moreover, poor households generally are unable to borrow to invest, especially at an affordable interest rate, because of limited access to formal financial markets and the high risk of non-payment, arising partly because of their vulnerability to economic shocks. Poverty and economic insecurity have considerable costs and adverse impact on economic development. *A contrario*, social protection can make a positive contribution towards economic growth and poverty reduction (Alderman and Yemtsov, 2012).

... and weak economic performance in turn limits the ability of a country to achieve poverty reduction, thereby creating a vicious circle.

Poverty limits human capital development, undermines labour productivity and reduces investment, thereby weakening economic performance. And weak economic performance in turn limits the ability of a country to achieve poverty reduction and augment its resources for health and education, thereby creating a pernicious vicious circle. These connections lie at the heart of the development

challenge for LDCs. They are also an important underpinning of the human development goals included in the MDGs and the planned SDGs.

2. Human development and the MDGs

While the MDGs focus on human development, the two cannot be equated. The MDGs and the associated targets were the outcome of a prolonged political process, constrained by issues of measurement and data availability. Their coverage is partial and selective, omitting key areas; and some targets are weakened by the absence of targets for complementary variables. For example, the potential benefits of achieving universal enrolment in primary schools could be undermined if it results in a reduction in the quality of education, which is not covered by the goals (Saith, 2006). There are also serious measurement problems concerning the health-related MDGs, which in most cases makes estimates of progress extremely unreliable (Attaran, 2005; Yamin and Falb, 2012; Fukuda-Parr and Yamin, 2013). Even the MDGs' major goal of extreme poverty reduction has been severely criticized on methodological grounds (Pogge and Reddy, 2006; Reddy and Pogge, 2009).

While the MDGs focus on human development, the two cannot be equated.

Some observers find that the MDGs' approach of shaping the global development agenda around a limited set of outcome goals has produced unintended consequences, some of which have undermined the objectives of the goals themselves. As stated by Fukuda-Parr et al. (2014: 115), "The unintended consequences revealed in the [Power of Numbers] Project cannot merely be ascribed to the goals and targets having been selected or implemented badly, as is sometimes claimed. They are more fundamental structural issues arising from the nature of quantification and the nested structure of goals, targets and indicators that the MDGs created…. By attempting to elaborate an entire international agenda through numerical targeting, the simplification, reification and abstraction of quantification created perverse effects in the MDGs".

The inability of the majority of LDCs to meet most of the MDGs is partly a reflection of their failure to break out the vicious circle of economic and human underdevelopment.

Nonetheless, achieving the major improvements in poverty, nutrition, health and education embodied in the MDGs and the planned SDGs could potentially break the vicious circle of economic and human underdevelopment described above. They could provide a strong basis for increasing the productive potential, both of the population and of the natural resource base at a sustainable level. But the vicious circle itself limits the ability of LDCs to achieve improvements in human development, compounding the effects of the resource and capacity constraints and geographical challenges they face.

The inability of the majority of LDCs to meet most of the MDGs, as discussed in chapter 2 of this Report, is partly a reflection of their failure to break out of this vicious circle.

The little consideration given to the means of achieving these outcome targets is a critical shortcoming in the MDG approach.

3. Economic development and sustaining human development

The analysis above exposes a critical shortcoming in the MDG approach. The MDGs focused very strongly on targets for improvements in readily measurable outcome indicators, such as poverty, mortality rates and school enrolment. But they gave little consideration to the means of achieving these outcome targets, i.e. how income could be created or augmented for reducing or eradicating poverty, how enough public revenues could be raised to pay for more and better health services and school places, or how the obstacles to generating these resources could be overcome.

The MDG approach was essentially a linear one, focusing entirely on human development goals and programmes targeted directly at meeting those goals (chart 21). By focusing on outcome goals to the exclusion of the means for achieving them, it encouraged reliance on specific programmes aimed at improving the targeted indicators that were mostly financed by official development assistance (ODA). While such programmes may have helped to attain, or partially attain, some of the goals, they have done little to ensure that the progress made can be sustained beyond the target date. Ensuring sustainability depends critically on reversing the vicious circle described above. It can also substantially accelerate improvements by exploiting the potential feedback effects. For example, increasing the productive potential of workers is not only a *product* of poverty reduction; it also provides an important *means* of reducing poverty by allowing poor people to generate more income. But exploiting this synergy means ensuring that people have the opportunity to use this potential productively and with fair remuneration — that is, by generating decent employment.

Programmes targeted to meet MDGs have done little to ensure that the progress made can be sustained beyond the target date.

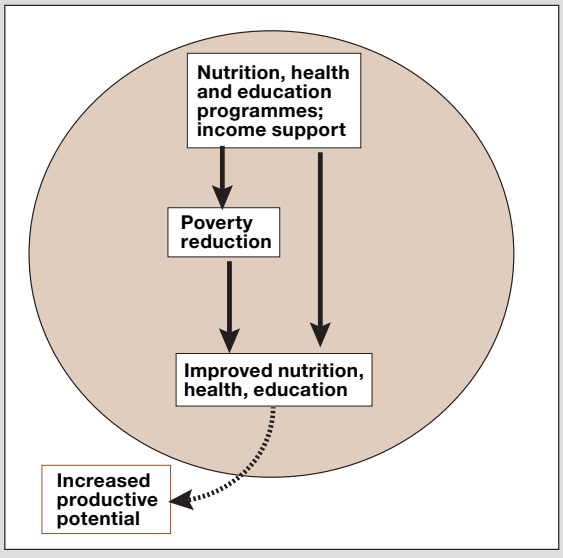
Thus economic development has a major role to play in achieving human development goals, and a still more critical role in sustaining advances in human development over the long term. Employment is a critical linkage in this process (Nayyar, 2012), especially when it is accompanied by rising labour productivity. What is needed is an economic development process that creates enough productive and remunerative jobs to allow people to generate the income needed to escape poverty, while also generating the public revenues needed to finance health services and education. This in turn requires an international economic system that supports such development processes.

Ensuring sustainability depends critically on reversing the vicious circle of underdevelopment.

As argued in this Report, it is the virtual omission of economic development from the MDG agenda which has been partly responsible for the failure of most LDCs to achieve most of the goals. If the post-2015 agenda is to be more successful in achieving the planned SDGs, it will need to encompass all of the elements presented in chart 22: economic transformation, employment creation, the generation of fiscal resources and a favourable global economic environment.

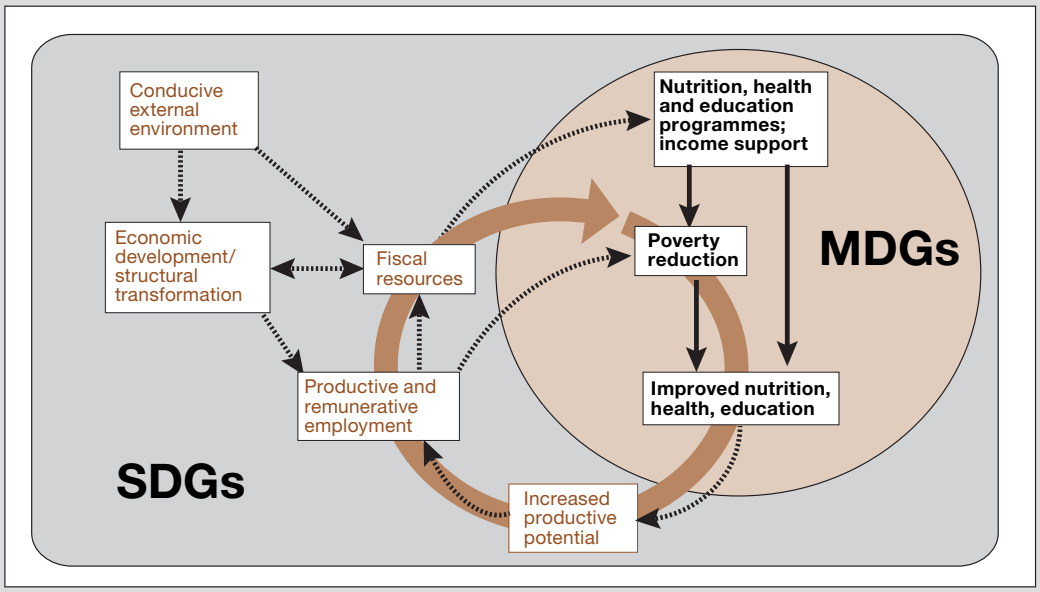
It is the omission of economic development from the MDG agenda which has been partly responsible for the failure of most LDCs to achieve most of the goals.

Chart 21. The MDGs: A linear approach



Source: UNCTAD secretariat.

Chart 22. Completing the circle: A framework for the SDGs



Source: UNCTAD secretariat.

B. Structural transformation and multidimensional sustainability

Development is not merely a matter of economic growth.

1. Development, structural transformation and the planned SDGs

Development is not merely a matter of economic growth. And LDCs are not merely smaller versions of developed economies; they are structurally different. Therefore, their development, especially in the early stages, involves not only increasing the scale of their economies, but also the latter's structural transformation, like the metamorphosis of a caterpillar into a butterfly. As countries develop, their economies become larger, but also different in nature. Thus the process of economic development is intertwined with economic structural change and transformation (ECLAC, 2008; McMillan and Rodrik, 2011; Lin, 2012).

LDCs development involves not only increasing the scale of their economies, but also the latter's structural transformation.

Productivity is central to this process. Increasing labour productivity is essential to long-run economic growth, and, combined with a rise in employment, it allows real labour incomes to rise. Unless output per worker increases, the only way of keeping domestic prices under control and maintaining competitiveness is by compressing real wages, but this would hamper poverty reduction. Higher productivity, on the other hand, allows wages to increase, thereby fostering more inclusive growth, contributing to human development and poverty reduction, and keeping inequality in check.

Productivity is central to this process.

Different productive sectors and activities have very different levels of productivity, along with varying potential for innovation, employment creation,

economies of scale, etc. Thus the balance between sectors, and between activities within sectors, has important implications for long-term growth potential. In the earliest stages of development, countries are dominated by "traditional" sectors, notably small-scale family agriculture and informal services. These are generally refuge sectors to which people resort in the absence of other income sources. They tend to have substantial surplus labour and very low productivity, and consequently generate limited income. Moreover, their potential for innovation and economies of scale is generally limited.

Different productive sectors and activities have very different levels of productivity.

Historically, structural transformation has been understood as the transfer of labour (and capital) from the traditional sectors to the modern sectors of the economy. It thus entails different growth rates in different sectors, as productive resources are moved from sectors with lower productivity to those with higher productivity (chapter 4 of this Report). The main emphasis has been on a shift from agriculture towards manufacturing, which has been seen as offering the greatest potential for increasing returns and technological innovation.[1]

However, the divisions between broadly defined sectors (agriculture, extractive industries, manufacturing and services) mask enormous differences within each sector — from small subsistence farms to plantations, from artisanal mining to oil rigs, from a person with a sewing machine to a textile factory, from a street seller to a software consultant. Thus, differences in productivity within each broad sector may be as great as those between sectors.

The balance between sectors, and between activities within sectors, has important implications for long-term growth potential.

More recently, therefore, the understanding of structural transformation has been extended to include not only shifts between sectors, but also within sectors, towards activities which are more knowledge-intensive or have higher value added or greater learning potential. Thus structural change may be defined as the ability of an economy to continually generate new dynamic activities, characterized by higher productivity and increasing returns to scale (Ocampo, 2005; UN/DESA, 2006; Ocampo and Vos, 2008). Interpreted in this way, structural transformation may be seen as a counterpart at the macro level to the (generally micro-level) concept of innovation; that is, as the introduction of, for example, new products, processes, organizational methods, inputs and markets, which are either new to the world or (in a narrower sense) new to a particular firm or country (UNCTAD, 2007). In LDCs, innovation and structural transformation generally occur mainly in the broader sense: they represent a movement *towards* the global technology frontier rather than moving the frontier itself.

In this Report, structural transformation is thus defined as including:

- Increasing labour productivity within sectors through technological change, investment (increasing the capital used per worker) and innovation (including the development of new products); and
- Additional improvement in aggregate productivity at the national level, as productive resources (including labour) are shifted from less to more productive activities or sectors.

The process of structural transformation is critical to converting the vicious circle of underdevelopment into a virtuous circle of accelerated economic and human development.

This process of structural transformation is critical to converting the vicious circle of underdevelopment (as shown in chart 20) into a virtuous circle of accelerated economic and human development (as shown in chart 22). But this does not happen naturally or automatically; it requires a deliberate policy effort and a conducive international environment. As discussed in chapter 4 of this Report, few LDCs have undergone any significant economic transformation since 1990, and it is this failure which underlies their generally weak performance in achieving the MDGs.

2. Defining "sustainability"

Without a solid economic foundation, progress in human development risks ultimately being reversed.

Economic transformation is critically important in the context of the planned SDGs, not only because it is more likely to help ensure that the goals will be achieved, but also because it will enable the progress made to be sustainable beyond the target date of 2030. Without a solid economic foundation, progress in human development risks ultimately being reversed: without viable livelihoods, poverty will rise again, worsening nutrition and health, and without a firm economic source of public finances, health services and education will deteriorate once external support begins to wane.

The economic, financial, political and social dimensions of sustainability should be central to the SDGs and the post-2015 development agenda.

This is part of a larger issue, namely the meaning of "sustainable" development. The concept of sustainability is central to the SDGs and the post-2015 development agenda. In practice, however, this has generally been interpreted to refer to *environmental* sustainability, particularly in relation to climate change. However, while environmental sustainability is undoubtedly important, it is only one of several factors which may prevent development from being sustained. Equally, if not more, important are the economic, financial, political and social dimensions of sustainability. Failure to take account of these dimensions could result in a reversal of progress, and in failure to meet the SDGs over the long term. From an LDC perspective, the key issue is whether development and progress towards the SDGs can be sustained; what prevents them from being sustained is a secondary consideration.

Poverty can only be eradicated by increasing primary income. This means increasing employment, wages and incomes.

Completing the circle of economic and human development, as discussed above, may be seen as the economic dimension of sustainability. Given the magnitude of poverty in LDCs, eradicating it through income transfers alone will be impossible: the financial, administrative and logistical challenges would be formidable. And, in the absence of development, such transfers would need to be continued indefinitely, and on a very large scale, to prevent a return of extreme poverty. Poverty would not be eradicated, but only alleviated for as long as transfers could be sustained. Thus poverty can only be eradicated by increasing the primary incomes (from employment and self-employment) of those now in poverty sufficiently to reduce the transfers needed to a feasible level. This means increasing employment, wages and incomes.

Equally, the major investments in other areas, such as education, health and water supply, that would be necessary to meet the planned SDGs in these areas will give rise to substantial recurrent costs, such as for teachers' and health professionals' salaries, drugs and other medical supplies, and maintenance. Cost recovery would by definition be zero for primary and secondary education (since the SDGs, as currently envisaged, specify that these should be free), and at most limited in the areas of health services, water and sanitation, given the need for accessibility and limited purchasing power. The potential for cost recovery for maintenance of other infrastructure is also likely to be limited by low income levels. Financing these costs sustainably will require a considerable increase in public sector revenues.

Social and political sustainability is critical, particularly in the early stages of development.

Social and political sustainability is also critical, particularly in the early stages of development. Economic transformation, and especially the emergence of a "modern" sector, benefits some segments of the population more than others. Where it is based on the development of manufacturing, in particular, it tends to benefit urban areas and populations disproportionately. Those who have capital to invest, or the human capital required to take higher paying jobs in the emerging "modern" sector would benefit the most, whereas unskilled workers left in the traditional sectors would benefit the least. This may increase inequality and widen rural-urban, regional and/or inter-ethnic disparities. While failure to achieve economic and human development carries its own risks, attention to such effects and the development of mechanisms to manage them successfully are essential to ensure the political sustainability of development.

Environmental sustainability is also critically important. However, there is a major distinction between local environmental issues and global issues such as climate change. While the former need to be addressed by national governments, balancing their own short- and long-term interests, the primary consideration concerning the latter is how global responses will affect the economic environment for development. This is particularly important in the case of climate change (box 3). Reconciling development paths with such global

Environmental sustainability is also critically important.

Box 3. Climate change, global carbon constraints and poverty eradication: Implications for post-2015 development

A key goal and long-standing commitment of the international community is to limit global warming to less than 2°C above pre-industrial levels, but was not included explicitly in the Open Working Group's final proposal for the SDGs.[a] That climate change goal implies a very considerable reduction in global emissions of carbon dioxide and other greenhouse gases. Only one of the four emissions scenarios envisaged by the Intergovernmental Panel on Climate Change is consistent with this objective (IPCC, 2013).[b] Depending on the Earth System Model used, this requires a global emissions reduction of between 14 per cent and 96 per cent from the 1990 level globally (45–97.5 per cent from the 2011 level).

Traditional environmental issues such as land, water and air pollution, (and biodiversity and deforestation to a large extent) are local issues. Pollution affects those in the vicinity of its source. These effects may spill across national borders, but they are geographically defined in relation to the source. For local environmental issues, the key question is how individual countries can best deal with them, balancing the need for long-term environmental sustainability with the more immediate need for economic development and improved living standards.

In the case of anthropogenic climate change, however, it is *total global* emissions of greenhouse gases which have an impact on the *global* climate. The effect of each country's greenhouse gas emissions and carbon footprint on its *own* climate is negligible. This is why global action is so critical, but also why it has proved to be so problematic. Each country bears the economic cost of its own emission reductions, but benefits mainly from the emission reductions of others. Thus, climate change, by virtue of its global nature, can only be dealt with by the global community as a whole.

The key issue for LDCs concerns the potential effects of this global response on their development. Without effective global action to tackle climate change, extreme weather events and rising sea levels will unquestionably undermine any progress towards poverty eradication. Nowhere is this more important than in LDCs, given their greater exposure and vulnerability, and their more limited adaptive capacity (IPCC, 2013). Low-lying countries such as Bangladesh, the Gambia and Tuvalu face the threat of inundation and storm surges, which could displace substantial segments of their population. The frequency, severity and duration of droughts are likely to increase. In addition, agriculture — a critically important income source in most LDCs — will be increasingly affected by "season failure" arising from greater variability of rainfall between and within seasons (AGRA, 2014).

There is widespread recognition that LDCs' own carbon emissions should not be subject to limitations which would impede their development. However, global action to reduce carbon emissions may be expected to have significant effects on global markets and consumption patterns in major export markets, with potentially important implications for LDCs' export opportunities. Assuming that global action is taken on climate change, it will be important to ensure that development strategies take full account of such secondary effects.

Most obviously and directly, global carbon emission constraints imply a limit to fossil fuel exports. However, some goods and services which have been important for export diversification in some LDCs may also be affected, notably long-haul tourism (of particular importance to island LDCs, but also, for example, to the Gambia and Cambodia) and perishable horticultural products that need to be transported by air (e.g. soft fruits and vegetables, and cut flowers).

Sustainable consumption and energy efficiency goals could also potentially affect the upgrading of manufactured exports (particularly of durable goods) as development progresses. Efforts to increase energy efficiency have already led to greater sophistication and complexity of goods such as cars and washing machines in developed-country markets. Moreover, efforts towards more sustainable consumption could imply an increased concern with product life and a shift towards higher quality consumer durables, as well as an acceleration of this trend. Similarly, improved environmental standards for production are likely to raise production costs and the technology-intensity — and possibly the capital-intensity — of industrial production, effectively raising barriers to new entrants to these industries.

More generally, given the close link between global GDP and greenhouse gas emissions, emission reductions on the scale indicated above implies some limit to the potential rate of global economic growth. It may be possible to achieve the 2°C warming target with a growth rate comparable to that achieved in the period prior to the current financial crisis (around 3 per cent per year), but it seems unlikely that it would be compatible with a major growth acceleration.

As discussed in section C.2 of this chapter, however, the income growth rate of the poorest households is considerably greater the above-mentioned rate. Thus, meeting the poverty eradication target while simultaneously fulfilling global goals on climate change will require the incomes of the poorest to grow much faster than the global economy; that is, it will require a considerable shift in the distribution of the additional income generated by global economic growth in favour of the poorest, whose incomes have grown much more slowly than the global growth rate in recent decades (Woodward and Simms, 2006; Milanovic, 2012). This is also consistent with a widespread concern in discussions on the post-2015 agenda (though not on the SDGs themselves, as envisaged at the time of writing) with reducing inequality, globally as well as nationally.

[a] The Report of the High-Level Panel on the Millennium Development Goals "underlined the importance of holding the increase in global average temperatures below 2 degrees Centigrade above preindustrial levels", and cited as one of the global impacts of its proposed goals, "Average global temperatures on a path to stabilize at less than 2° C above pre-industrial levels" (United Nations, 2013:19, 55); and drafts of the outcome document of the Open Working Group (OWG) until June 2014 included as target 13.1 to "hold the increase in global average temperature below a x°C rise in accordance with international agreements" (OWG, 2014a). However, the OWG outcome document published in July (OWG, 2014b), while strengthening the goal itself and linking it explicitly to global negotiations under the United Nations Framework Convention on Climate Change, omitted this target.

[b] This scenario limits the temperature rise to 1.6°C, with an upper confidence interval of 2.3°C.

environmental concerns will be critical. Thus an important element for achieving the planned SDGs will be to find "win-win" options that will benefit development and environmental sustainability, and, more particularly, poverty reduction and climate stabilization.

C. Achieving the SDGs: What would it take?

The SDGs are much more ambitious than the MDGs.

1. From the MDGs to the SDGs

As currently envisaged, the SDGs are much more ambitious than the MDGs. For example, where the MDGs aimed to halve extreme poverty and reduce under-five mortality by two thirds in 25 years, the SDGs are expected to aim for complete poverty eradication and to eliminate preventable child deaths in just 15 years. Such ambitious targets are welcome, and long overdue, but they are also extraordinarily challenging.

To achieve the planned SDG of poverty eradication, the LDCs will need to reduce their poverty rate from 46 per cent to zero in 15 years.

To put the scale of this challenge in context, the level of poverty in China in 1994 was about the same as the current level in LDCs as a whole: 46 per cent, based on the $1.25-a-day poverty line. During the following 15 years, the country achieved an annual growth rate of per capita GDP 9.4 per cent. Nevertheless, in 2009 still 11.8 per cent of China's population was living in poverty. To achieve the planned SDG of poverty eradication, the LDCs will need to reduce their poverty rate from 46 per cent to zero over the same time span (15 years). In other words, they would need a much bigger economic miracle than China's.

Achieving such a goal in LDCs will be extremely difficult, given their multiple and overlapping structural, geographical, environmental and social problems.

Achieving such a goal in LDCs will be extremely difficult, given their multiple and overlapping structural, geographical, environmental and social problems. The challenge is exacerbated by extremely uncertain prospects for the external environment as the global economy continues to struggle in the wake of the global financial crisis. Economic recovery in the developed countries remains tentative and fragile; and the associated return to more normal interest rates and greater market confidence may well draw capital away from emerging markets, thereby slowing their growth. Aid budgets in most donor countries remain under pressure as they pursue fiscal austerity programmes, and commodity markets face considerable uncertainty.

To fulfil much more challenging goals in a much less favourable environment, and to do so sustainably, will require nothing short of a revolution in LDCs' economic performance. More specifically, it will require economic transformation on a scale unprecedented in these countries.

To fulfil much more challenging goals in a much less favourable environment will require economic transformation on a scale unprecedented in LDCs.

2. What kind of structural transformation is needed?

Meeting human development goals sustainably will not only require economic transformation.

LDCs will need to strive for the kind of economic transformation that will contribute positively to the achievement of human development goals on a sustainable basis. The period to 2030 is relatively short for achieving structural transformation: few, if any, LDCs can expect to complete the transformation process (in the sense of shifting the economy entirely into higher productivity activities) within this period of time. If economic transformation is to contribute effectively to achieving the planned SDGs by 2030, policies should aim to promote employment and ensure that the necessary fiscal resources are

available for poverty reduction, health services and education during the transformation process.

Eradicating poverty, as envisaged in the SDGs, means that the entire population of every country must have an income level above the poverty line. As discussed above, given the limited scope for income transfers, this would have to be achieved primarily through increases in income from employment, self-employment and family agriculture. And these higher incomes will only be sustainable if they are matched by higher productivity. Moreover, it would entail extremely large increases in income, since the current average income of the poorest 5 per cent of the population across LDCs as a whole is very low, at around $0.25 per day in 2010. Raising this average to $1.25 per day by 2030 would require a fivefold increase, which would necessitate an average annual growth rate of per capita income of 8.3 per cent. This is more than three times the rate achieved even in the favourable economic climate of 2002–2010 (2.7 per cent per year), and 20 times that achieved over the previous two decades (0.4 per cent per year).[2] Moreover, this would still leave some 2–3 per cent of the population dependent on income transfers to escape extreme poverty.

Eradicating poverty means that the entire population of every country must have an income level above the poverty line.

In some LDCs, the incomes of the poorest are much higher, and the challenge may be more manageable. Bhutan has already reduced the proportion of those living below the $1.25-a-day poverty line to less than 5 per cent. Five other LDCs (Cambodia, Djibouti, Sao Tome and Principe, Sudan and Yemen) had poverty rates between 13 and 20 per cent. At the other end of the scale, however, in five LDCs (Burundi, the Democratic Republic of the Congo, Liberia, Madagascar and Zambia) poverty rates were between 75 per cent and 85 per cent in 2010, and for them the challenge will be formidable. In these countries, overall, the average income of the poorest 5 per cent is just $0.13 per day, requiring an annual growth rate of 15 per cent to reach $1.25 per day by 2030.[3]

In some LDCs, the incomes of the poorest are much higher, and the challenge may be more manageable.

Thus, what is needed is not merely to increase overall productivity, but also to create sufficient new productive and remunerative employment opportunities across the entire population, with productivity high enough to sustain incomes above the poverty line. This means increasing demand faster than the increase in labour productivity: if labour productivity is increased without (domestic and foreign) demand growing at least as fast, either employment will decline, or workers will be pushed out of the sectors of rising productivity into lower productivity "refuge" sectors of informality and family agriculture. Either way, the result will be a rise rather than a fall in poverty.

Neither the Washington Consensus approach nor the more interventionist East Asian model based on export-oriented manufacturing seems likely to achieve this. In both Latin America and sub-Saharan Africa, the Washington Consensus model increased efficiency in manufacturing primarily by driving relatively inefficient producers out of business, and those that survived shed labour. While this increased labour productivity in manufacturing, overall employment in the sector fell. The result was a process of reverse structural transformation in which labour moved from the manufacturing sector into lower productivity sectors, notably the informal sector (McMillan et al., 2013).

What is needed is not merely to increase overall productivity, but also to create sufficient new productive and remunerative employment.

The East Asian model is more conducive to structural transformation, to the extent that it entails an increase in manufacturing employment. However, this alone is clearly insufficient to eradicate poverty in 15 years in most LDCs. As Rodrik (2014: 11 and fig.16) observes, the peak level of employment in manufacturing has declined in successive generations of industrializing countries, from above 30 per cent in the United Kingdom and Germany to the mid-teens in the Latin American and Asian economies, where a process of premature deindustrialization has begun. This falls far short of the increase in higher-wage employment required for poverty eradication in most LDCs. This suggests that

employment in manufacturing alone is insufficient to generate sufficient well-paid jobs to achieve poverty eradication. Raising productivity and incomes in other sectors, particularly agriculture and services, will also be essential.

Employment in manufacturing alone is insufficient to generate sufficient well-paid jobs to achieve poverty eradication.

For exporters of manufactures among the LDCs, continuing along a development path based largely on export-oriented manufacturing, along with supplementary measures in other sectors, seems likely to provide the best available option. For other LDCs — particularly island and landlocked LDCs, and those heavily dependent on agriculture — developing export-oriented manufacturing on a sufficient scale to eradicate poverty by 2030 would be extremely challenging. For larger countries among these groups, however, production of labour-intensive consumer goods (e.g. clothing, footwear and processed foods) for domestic and/or regional markets may provide a more viable entry point for a more gradual process of industrialization. The rising consumption levels associated with rapid poverty reduction could contribute substantially to such a process.

Reviewing sub-Saharan Africa's recent economic turnaround, Rodrik concludes that "If African countries do achieve growth rates substantially higher than [2 per cent per capita, on a sustained basis], they will do so pursuing a growth model that is substantially different from earlier miracles based on industrialization. Perhaps it will be agriculture-led growth. Perhaps it will be services. But it will look quite different than what we have seen before" (Rodrik, 2014: 15).

Raising productivity and incomes in other sectors, particularly agriculture and services, will also be essential.

It seems likely that this also applies, to a greater or lesser extent, to other LDCs which have not as yet developed substantial export-oriented manufacturing sectors. It is also quite clear that eradicating poverty in most of these countries by 2030 will require a substantially faster per capita growth rate than 2 per cent, even if a much greater share of growth accrues to the poorest among their populations than has been the case so far.

Of particular importance in most LDCs is rural development, since the majority of people in LDCs live in rural areas, with a handful of exceptions (Djibouti, Sao Tome and Principe, Angola, the Gambia, Haiti and Tuvalu, where 36–49 per cent live in rural areas). In 20 LDCs — including three of the five exporters of manufactures (Bangladesh, Cambodia, Lesotho) — the proportion of the population living in rural areas is between 70 per cent and 90 per cent. Across developing countries in all regions, poverty also tends to be greater in rural areas than in urban areas, even allowing for differences in living costs, although this tendency appears to have diminished over time (Ravallion et al., 2007).

Of particular importance in most LDCs is rural development, since the majority of people in LDCs live in rural areas.

Thus, in the great majority of LDCs, the additional income required for poverty eradication is needed the most by people in rural areas. Even if there were unlimited employment growth in urban areas, the potential for poverty eradication through industrial development alone would be limited by the social and environmental constraints associated with a sustainable pace of urbanization. Moreover, the potential to increase agricultural productivity without a major reduction in employment is limited by the substantial labour surplus in small-scale agriculture in most LDCs. This suggests that the diversification of rural economies into non-agricultural activities and the generation of off-farm income sources in rural areas would need to be key objectives. Even in established exporters of manufactured goods, this is likely to be a necessary adjunct to further industrialization if poverty is to be eradicated by 2030.

Notes

1 While mining typically has relatively high labour productivity, this reflects its high level of capital intensity; thus the potential for technological upgrading and employment generation are limited.

2 UNCTAD secretariat estimates, using data from World Bank, PovcalNet (http://iresearch.worldbank.org/PovcalNet/index.htm?0,0). These data cover 39 of the 48 LDCs, which account for 88 per cent of the total LDC population.

3 Poverty data are from PovcalNet; data for income growth are UNCTAD secretariat estimates using PovcalNet data.

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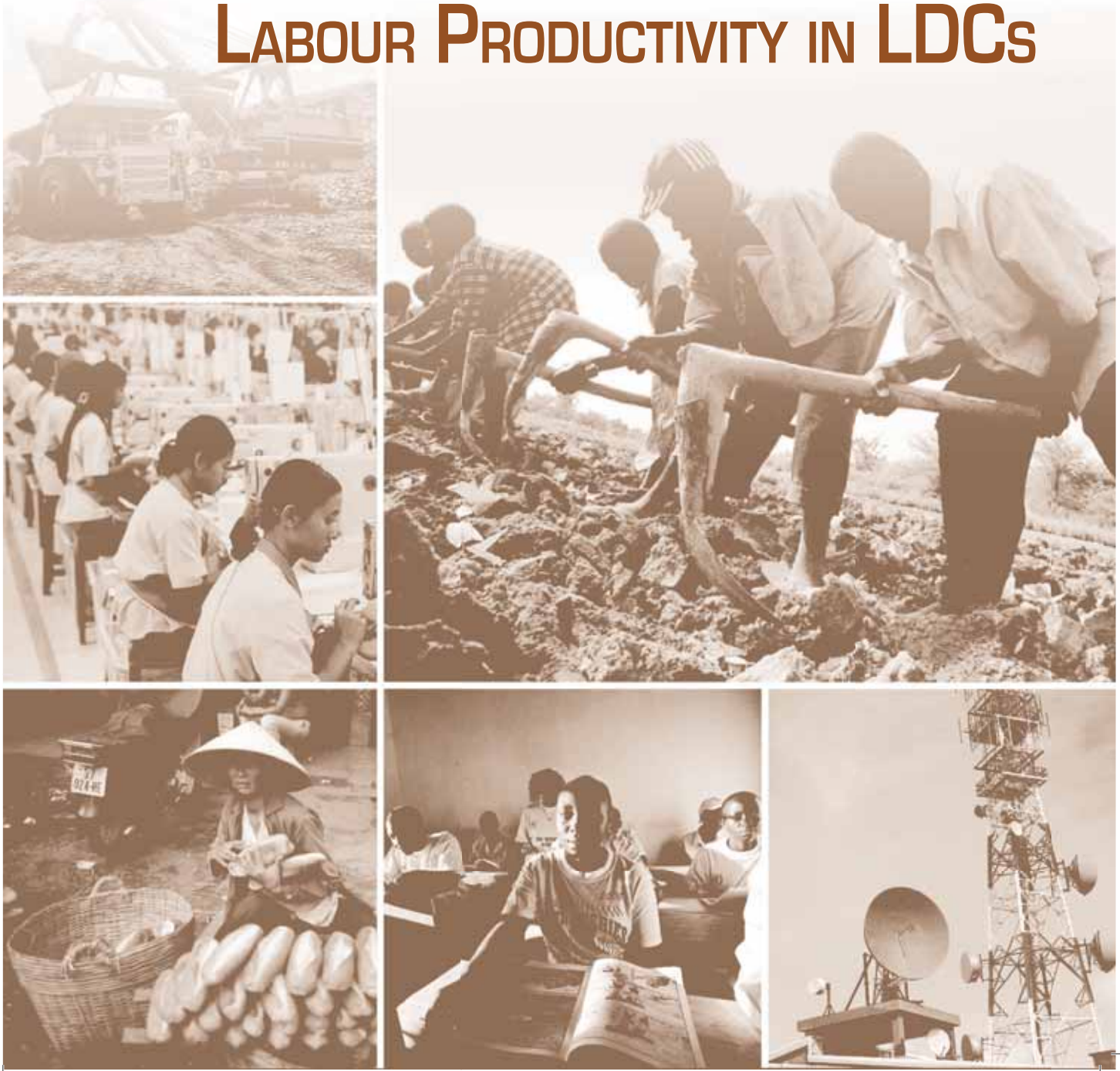
CHAPTER 4

STRUCTURAL TRANSFORMATION AND LABOUR PRODUCTIVITY IN LDCS



A. Introduction

Human development is inextricably linked to economic development, as argued in chapter 3 of this Report. Key elements of human development, such as poverty, nutrition, health and education, are thus important indicators of the impact of economic development. As also highlighted in that chapter, structural transformation, labour productivity growth and employment creation are essential to the development process. The present chapter applies these concepts to the least developed countries (LDCs) and analyses the progress made by these countries in these vital areas since the 1990s. The results of this analysis offer insights into the "LDC paradox" of slow progress in human development despite accelerated economic growth since 2000.

The economic performance of developing countries is based on two separate but interrelated processes: increasing labour productivity and productive structural transformation.

The chapter is organized as follows. Section B presents a conceptual framework of the relationship between structural transformation, labour productivity and employment. Section C analyses the patterns of economic growth and structural transformation in the LDCs since the 1990s. Based on these trends, Section D assesses developments in labour productivity over the same period. Section E deepens that analysis by decomposing the growth of labour productivity by sector, and the growth of the employment-to-population ratio into its demographic and labour market components. Section F analyses the relationship between LDCs' progress in structural transformation and their performance in economic and social development. The final section summarizes and concludes.

B. The interaction between structural change, labour productivity and employment

A rise in labour productivity can increase output and incomes ...

The economic performance of developing countries is based on two separate but interrelated processes: increasing labour productivity and productive structural transformation. Structural transformation has different dimensions, especially changes in the composition of output, employment, exports and aggregate demand. This chapter focuses on the first two of these dimensions, since it is their interaction that determines labour productivity. There are important feedbacks between efficiency gains and changes in the structure of the economy, so that they need to occur together if economic progress is to be sustainable.

... but without strong demand growth, a rise in labour productivity could even reduce employment.

Under favourable economic and institutional conditions, a rise in labour productivity leads to a rise in output, and thus to higher incomes. The extent to which the rise in incomes is distributed more widely depends on implicit and explicit contractual arrangements between firms and workers, and on labour market conditions. Higher labour productivity can also lower unit labour costs, which is especially important in the agricultural sector in LDCs for keeping prices of food and food-related items in check, as these constitute the major components of the average consumption basket. If those prices were to rise, economy-wide inflationary pressures could mount and strangle growth. Increasing labour productivity also increases competitiveness, helping to stimulate exports.

However, higher labour productivity also gives rise to trade-offs. For LDCs, the crucial trade-off relates to aggregate employment. Employment growth is limited if faster productivity growth is not accompanied by faster expansion of aggregate demand (Ocampo et al., 2009). Indeed, without strong demand for output, a rise in labour productivity could even reduce employment. This would

further accentuate the already stark differences in labour productivity between sectors (structural heterogeneity), typical of developing countries. Thus, economic policy must seek to ensure that demand growth does not lag behind gains in labour productivity.

There are two main sources of aggregate labour productivity growth: (i) innovations within sectors; and (ii) movement of workers across sectors.

There are two main sources of *aggregate* labour productivity growth. First, it can result from innovations *within* each sector or activity, as capital is increased, new technologies are adopted and the knowledge to use them is acquired. Second, overall productivity can increase as a result of the movement of workers *across* sectors — from lower- to higher-productivity sectors or activities (chart 23). The transfer of workers from one sector to another sector with higher labour productivity will benefit both economic performance and the workers themselves, as they will become more productive and therefore will be likely to earn a higher wage. This intersectoral transfer is an essential part of the process of structural transformation discussed in this chapter.

The wide income gap between developed and developing countries can be explained by developing countries' lower productivity, especially in agriculture, and their greater share of agriculture in employment.

Structural transformation of production is a necessary condition for long-term growth of per capita income (Ocampo et al., 2009; Herrendorf et al., 2014). It is associated with two types of dynamic efficiency, accelerating the growth of productivity, output and employment over time. The first is a Schumpeterian efficiency effect, whereby those sectors with the highest rates of productivity growth and capacity expansion lead the innovation process and drive productivity gains. The second is a Keynesian efficiency effect, whereby the pattern of specialization shifts towards sectors that benefit from faster growth of domestic and external demand, generating positive impacts on output and employment. These two types of efficiency generally go hand in hand, as the more knowledge-intensive sectors also tend to face stronger domestic demand growth in the long run, and tend to be more competitive in international markets (ECLAC, 2012).

Structural transformation helps to narrow productivity differences between sectors.

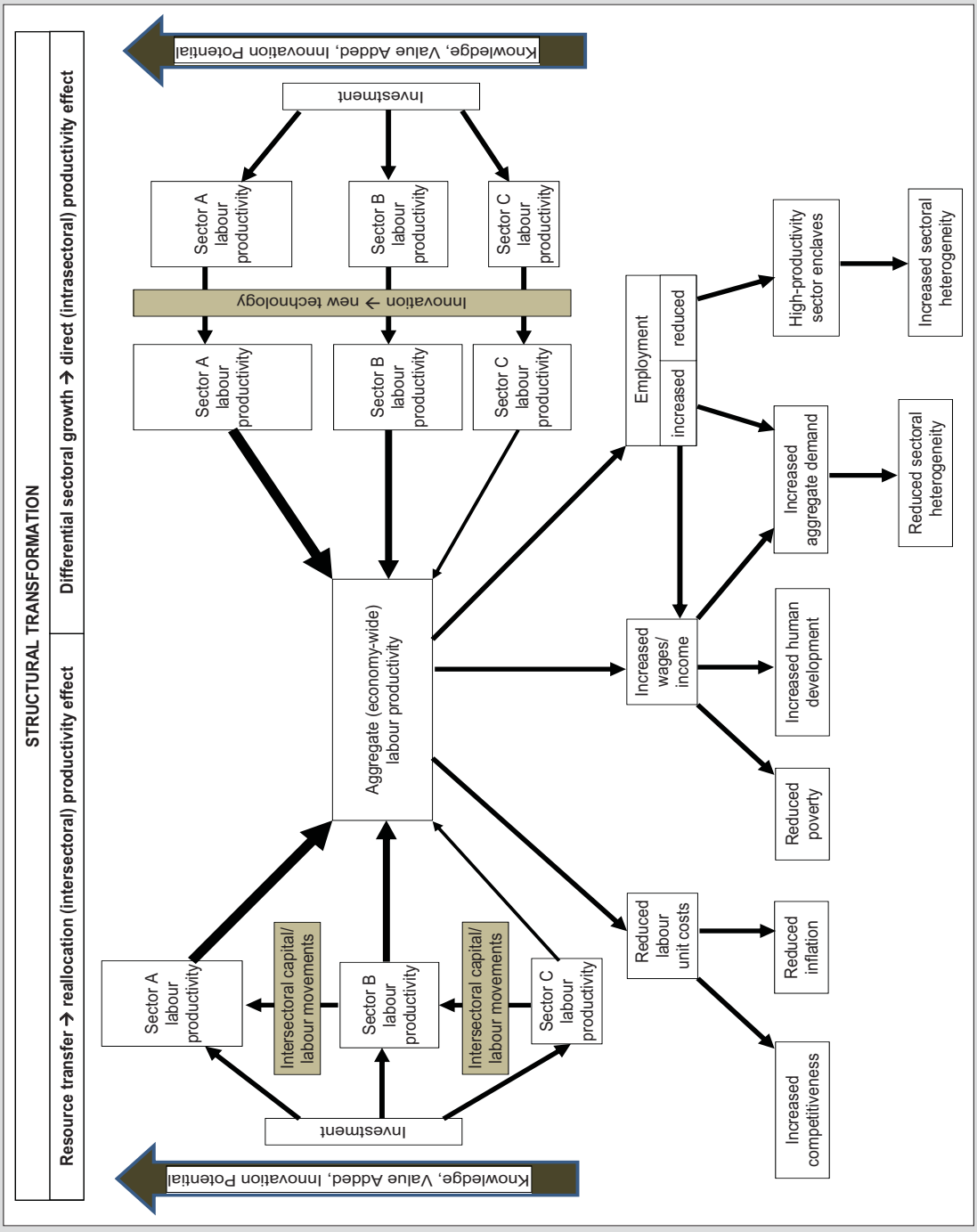
Historically, the countries that have succeeded in achieving sustained economic growth and development are those that have been able to transform their production activities effectively from low to high productivity, and to diversify from the production and export of a single or a few primary products to the manufacture and export of finished products. Research on the process of development has shown that the large divergences in living standards across countries can be attributed to two simple facts: (i) developing countries are much less productive than developed countries, especially in agriculture; and (ii) developing countries devote much more of their labour than developed countries to agriculture (Caselli, 2005; Restuccia et al., 2008; Gollin et al., 2002 and 2007). Thus, understanding why developing countries — and especially LDCs — are so poor requires an understanding of the forces that shape their allocation of resources between economic sectors.

The benefits of structural transformation are not limited to a rise in overall labour productivity; there are also spillovers through demand, intersectoral linkages, learning and induced innovations. As workers transfer to more productive activities and better paid jobs, their demand increases, which stimulates overall output, and, in turn, increases the demand for labour.

For LDCs, greater progress in economic development will require not only economic growth, but also a dynamic transformation of their economies.

Structural transformation also reduces structural heterogeneity, since it helps to narrow productivity differences between sectors by channelling more resources towards better performing sectors and activities. Higher-productivity sectors are more dynamic and better positioned to accumulate further knowledge and innovations by virtue of their greater stocks of human and physical capital. In other words, the ideal form of structural transformation is one that creates the conditions for further economic growth and development, and thus for further changes in the structure of the economy. For LDCs, greater progress in economic development will require not only economic growth as traditionally defined, but also a dynamic transformation of their economies.

Chart 23. Structural transformation and labour productivity



Source: UNCTAD secretariat.

C. Economic performance and structural transformation

This section examines the economic performance of the LDC economies since the 1990s, focusing on their structural transformation, output and employment growth. Data are presented by country group based on the following classifications:

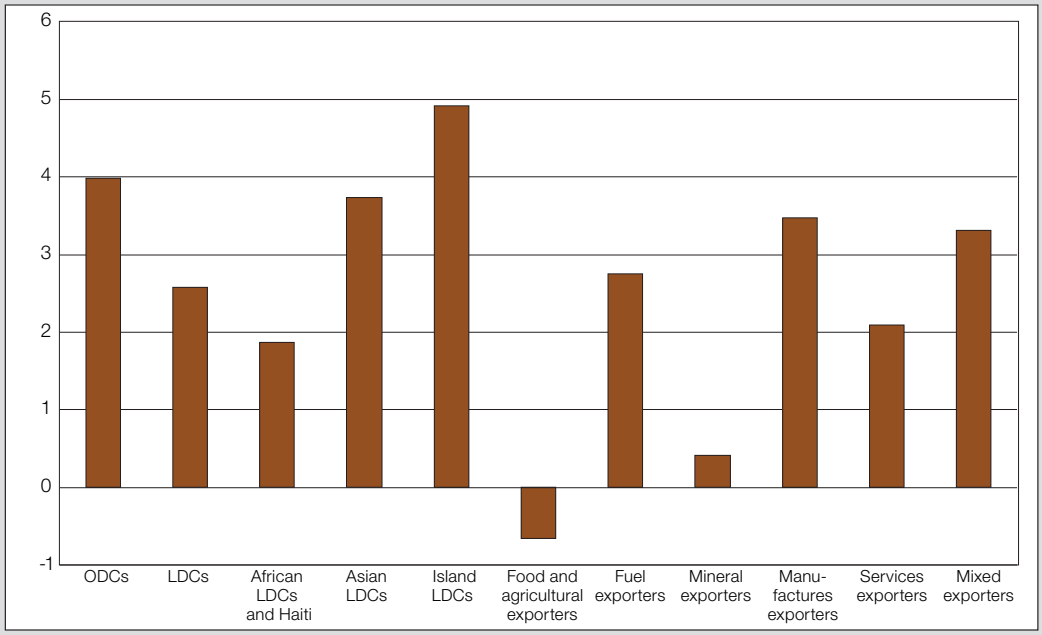
- Economies classified according to development level: LDCs, other developing countries (ODCs) and developed countries;
- LDCs classified according to geographical/structural criteria: African LDCs and Haiti, Asian LDCs and island LDCs;
- LDCs classified according to their export specialization: exporters of food and agricultural goods, fuel exporters, exporters of manufactures, mineral exporters and mixed exporters.

The criteria for these classifications are explained in the note on page xiii of this Report, which also contains the list of the countries composing each group.

Among the LDCs, Asian economies, mixed exporters and exporters of manufactures achieved faster per capita growth than average in 1991–2012, their per capita output growing at or above 3.3 per cent per year.

Chart 24 shows annual growth rates of per capita output (as measured by value added) for LDCs and ODCs in the 1991–2012 period. Average annual output per capita has been growing steadily at 4 per cent or more in two groups of countries — ODCs and island LDCs,[1] compared with 2.6 per cent for the LDCs as a whole. Among the LDCs, Asian economies, mixed exporters and exporters of manufactures performed better than the LDC average, with per capita growth at or above 3.3 per cent per year.[2] In a second group of LDCs,

Chart 24. Annual growth rate of output per capita in LDCs and ODCs, 1991–2012
(Per cent)



Source: UNCTAD secretariat calculations, based on data from UN/DESA, Statistics Division, *National Accounts Main Aggregates Database* for national accounts data (accessed June 2014); UN/DESA, Statistics Division, *Demographic Yearbook Database* for population data (accessed June 2014).
Note: Output is measured by gross value added at constant 2005 dollars.

comprising fuel exporters, services exporters, and African LDCs and Haiti, output per capita grew more slowly, at average annual rates of between 1.9 per cent and 2.7 per cent.[3] Finally, in mineral exporters and food and agricultural exporters, output per capita stagnated or declined. All economies in these two categories of exporters are African, except for the Solomon Islands.

Sustaining strong economic performance and generating sufficient productive employment are critical challenges for all the LDCs.

At first glance, the growth performance of LDCs thus appears to vary widely, with considerable disparities between the various groups. On closer examination, however, these disparities appear to be largely associated with geographical location, the economic performance of the African LDCs and Haiti lagging behind that of other LDC groups. Nonetheless, sustaining strong economic performance and generating sufficient productive employment are critical challenges for all the LDCs.

Variations in economic growth across country groups are closely associated with changes in the basic structures of their economies.

A closer examination of economic growth performance shows that variations across country groups are closely associated with changes in the basic structures of their economies. Thus, the structures of LDC economies are analysed in terms of the distribution of employment and output between three broadly defined sectors: agriculture, industry and services.[4]

1. Structural change in employment

Structural transformation has been taking place in LDCs in terms of both employment and output composition.

A major challenge confronting the LDCs is the scale of employment generation required to make significant progress towards achieving the Millennium Development Goals (MDGs) and their successors, the planned Sustainable Development Goals (SDGs). As discussed at length in *The Least Developed Countries Report 2013*, this is exacerbated by rapid growth in the working age population in LDCs (UNCTAD, 2013).

The sectoral composition of employment and output is a major determinant of overall labour productivity, which is one of the basic measures of economic performance. Tables 11 and 12 show sectoral shares of employment and output in selected years, and changes in those shares between 1991 and 2012. Structural transformation has been taking place in LDCs as a whole, as well as in LDC country groups, in terms of both employment and output composition.

Table 11. Sectoral composition of employment, 1991–2012
(Per cent and percentage points)

	Agriculture				Industry				Services			
	1991	*2000*	*2012*	*Change 1991–2012*	*1991*	*2000*	*2012*	*Change 1991–2012*	*1991*	*2000*	*2012*	*Change 1991–2012*
Developed economies	7	5	4	-3	31	27	23	-9	62	67	74	12
ODCs	53	46	34	-19	20	20	25	5	27	33	41	14
LDCs	74	71	65	-9	8	8	10	1	18	21	26	8
African LDCs and Haiti	76	75	70	-7	6	5	7	1	18	20	24	6
Asian LDCs	70	65	57	-14	11	11	14	2	18	24	30	11
Island LDCs	66	57	55	-12	8	10	11	3	25	33	34	9
Food and agricultural exporters	75	73	71	-3	8	8	8	0	17	19	20	3
Fuel exporters	57	57	50	-7	9	8	10	0	34	35	40	6
Mineral exporters	76	80	76	0	6	4	4	-1	19	17	19	1
Manufactures exporters	70	65	54	-16	13	11	14	1	17	25	32	15
Services exporters	82	78	72	-10	5	6	8	3	13	15	19	7
Mixed exporters	72	68	63	-9	7	8	10	2	20	24	27	7

Source: UNCTAD secretariat calculations, based on data from ILO, *Global Employment Trends 2014* database (accessed June 2014).
Note: Differences between the figures shown and the "change 1991–2012" column are due to rounding.

Table 12. Sectoral composition of output, 1991–2012
(Per cent and percentage points)

	Agriculture				Industry				Services			
	1991	*2000*	*2012*	*Change 1991–2012*	*1991*	*2000*	*2012*	*Change 1991–2012*	*1991*	*2000*	*2012*	*Change 1991–2012*
Developed economies	1	1	2	0	28	26	24	-4	71	72	75	4
ODCs	11	10	8	-4	38	40	40	2	51	51	52	2
LDCs	33	30	25	-8	23	27	31	9	45	43	44	-1
African LDCs and Haiti	34	32	26	-8	23	28	34	10	43	40	40	-3
Asian LDCs	30	26	22	-8	21	27	27	6	48	47	51	2
Island LDCs	31	30	13	-18	22	25	64	42	47	44	23	-24
Food and agricultural exporters	48	45	37	-10	12	12	20	8	40	43	43	3
Fuel exporters	21	22	19	-2	36	45	48	11	43	33	34	-9
Mineral exporters	39	36	31	-8	20	22	25	5	41	42	44	3
Manufactures exporters	28	23	18	-10	20	24	29	9	53	53	53	0
Services exporters	44	40	30	-14	16	18	22	5	40	43	48	9
Mixed exporters	38	38	33	-5	17	17	22	5	45	44	45	0

Source: UNCTAD secretariat calculations based on data from UN/DESA, Statistics Division, *National Accounts Main Aggregates Database* (accessed June 2014).
Note: Differences between the figures shown and the "change 1991–2012" column are due to rounding.

The overall pattern of change in employment shares is towards the services sector, and to a lesser extent towards industry. However, despite relatively rapid growth of employment in the industrial and services sectors (table 13), agriculture continues to account for the largest share of the labour force in LDCs, although it declined from 74 percent in 1991 to 65 per cent in 2012. However, this is almost double the average level in ODCs (table 11).

The overall pattern of change in employment shares is towards the services sector, and to a lesser extent towards industry.

By definition, a smaller share of employment in agriculture implies a larger combined share for the other two sectors. In LDCs, this increase has been occurring overwhelmingly in the services sector, which gained 8 percentage points between 1991 and 2012, compared with just 1 percentage point in the industrial sector. This is markedly different from the classical pattern of structural transformation that took place in countries that are now at higher income levels. There, the employment share of industry rose significantly in the early stages of development, particularly in labour-intensive manufacturing. The economic rationale for a shift towards manufacturing activities is that they have higher average productivity and are characterized by increasing returns to scale, so that they offer greater potential for more rapid productivity growth.

Table 13. Average annual growth rates of employment, 1991–2012
(Per cent)

Annual growth rates	Agriculture	Industry	Services
Developed economies	-2.5	-0.9	1.4
ODCs	-0.5	2.8	3.7
LDCs	2.2	3.6	4.6
African LDCs and Haiti	2.7	4.0	4.4
Asian LDCs	1.3	3.3	4.8
Island LDCs	0.4	2.6	2.9
Food and agricultural exporters	2.3	2.7	3.4
Fuel exporters	2.9	3.7	4.3
Mineral exporters	3.1	2.1	3.3
Manufactures exporters	1.0	2.7	5.3
Services exporters	2.5	5.6	5.2
Mixed exporters	2.0	3.9	4.2

Source: UNCTAD secretariat calculations, based on data from ILO, *Global Employment Trends 2014* database (accessed June 2014).

Agriculture continues to account for the largest share of the labour force in LDCs at 65 per cent in 2012, double the level in ODCs.

Structural transformation in African LDCs and Haiti has occurred at half the rate of Asian LDCs.

The patterns of structural change in LDC employment outlined above also hold for all the geographical/structural groups, although with varying intensities. These changes are the most pronounced in the Asian LDCs, where services and industries added 11 percentage points and 2 percentage points respectively, compared with 6 and 1 percentage points, respectively, in the African LDCs and Haiti. This comparison, suggesting that structural transformation in African LDCs and Haiti has occurred at half the rate of Asian LDCs, warrants further attention. Data on employment growth, presented in table 13, indicate that industrial jobs in African LDCs and Haiti grew by 4 per cent per year, which was faster than the 3.3 per cent growth recorded in the Asian LDCs. However, because of the lower starting point (6 per cent in the African LDCs and Haiti, compared with 11 per cent in the Asian LDCs), this faster growth rate translated into a smaller absolute increase in the industrial share of employment. Employment in the services sector expanded at about the same rate in both regions.

Agricultural employment in the African LDCs and Haiti grew by 2.7 per cent per year, compared with 1.3 per cent per year in the Asian LDCs.

The crucial difference between the two groups of LDCs lies in the much faster growth of labour in agriculture in the African LDCs and Haiti: 2.7 per cent per year, compared with 1.3 per cent per year in the Asian LDCs. This can be explained partly by differences in the demographic dynamics of the two groups. Annual population growth has been one percentage point higher in the African LDCs and Haiti, leading to a more rapid expansion of the overall labour supply. The resulting labour surplus has accumulated in subsistence agriculture, which acts as an "employer of last resort". This process slows down changes in the sectoral composition of employment in countries experiencing more rapid population growth.

Although the number of jobs in industry and services grew faster in the LDCs, the composition of employment changed more dramatically in the ODCs.

Demographic differences also partly explain the differences in structural transformation between the LDCs and the ODCs. Although the number of jobs in industry and services grew faster in the LDCs, the composition of employment changed more dramatically in the ODCs. The share of the agricultural sector's employment in the ODCs fell by 19 percentage points, on average, between 1991 and 2012, of which 5 percentage points were gained by the industrial sector. Besides the effect of population growth on labour supply, differences in economic performance also contributed to these differential outcomes. The decline in the agricultural sector's share in employment in ODCs, at an average rate of 0.5 per cent per year, is indicative of greater structural transformation (table 13).

Exporters of manufactured goods recorded the fastest rate of transformation.

Patterns of structural change in employment since the 1990s show a marked contrast between LDCs grouped by export specialization, reflecting the close relationship between export composition and productive structure. Exporters of manufactured goods recorded the fastest rate of transformation, with a 16-percentage-point decline in the agricultural sector's share of employment, followed by services exporters and mixed exporters, with 10 percentage points and 9 percentage points respectively. At the other end of the scale, food and agricultural goods exporters and mineral exporters experienced little or no contraction in agriculture's share of employment.

Food and agricultural goods exporters and mineral exporters experienced little or no contraction in agriculture's share of employment.

The fastest employment growth in all groups of LDCs occurred in the services sector, where it exceeded 3 per cent per year in all export categories. This was followed by employment in industries, with growth rates ranging from 2.1 per cent per year in mineral exporters to 5.6 per cent in services exporters.

2. Structural change in output

Changes in the sectoral composition of output in LDCs have been very different from those in employment (table 12). The largest relative output expansion in all LDC groups has been in the industrial sector, mostly at the

expense of the agricultural sector. Between 1991 and 2012, the share of industry in overall output increased by 5 percentage points or more in all regions. African LDCs and Haiti and island LDCs recorded double-digit changes towards industry, as did exporters of fuel and of manufactured goods. By contrast, the economic structure in ODCs changed relatively little during this period, shares of the industrial and services sectors growing by just 2 percentage points.

The largest relative output expansion in LDCs has been in the industrial sector, mostly at the expense of agriculture.

The growth of industry at the expense of agriculture in LDCs reflects the transfer of resources from agriculture to industry. This pattern is typical of the development paths of countries now at higher income levels. There, the manufacturing sector played a key role. Manufacturing leads in technological change and learning and, under the right circumstances, can be a major source of technological spillovers, while generating strong backward and forward linkages across sectors within the economy (Astorga et al., 2014).

The growth of industry at the expense of agriculture in LDCs reflects the transfer of resources from agriculture to industry.

In this respect, however, further disaggregation of the data in table 12 paints a more sober picture of structural transformation in the LDCs. For the LDCs as a group, the sector's share of output increased by only 1 percentage point between 1991 and 2012, compared with 9 percentage points in ODCs (table 14). The best performing LDC groups in this respect were the Asian LDCs and manufactured goods exporters, with Bangladesh as the main driver. In both cases, the share of manufacturing in output rose by 5 percentage points. For the other LDC groups, in contrast, the increase in the share of industrial output (table 12) was the result of booming extractive industries. Fuel exporters experienced the greatest increase in the industrial share, reflecting the relative expansion of their extractive industries since the 1990s. An extreme example is the island LDCs, where the 42 percentage point increase in the industrial sector's share of output was due entirely to increasing oil and gas production in Timor-Leste.

The strongest relative increase in manufacturing output took place in the Asian LDCs and manufactured goods exporters ...

While the services sector led the transformation of sectoral shares of employment in the group of LDCs, its share of output remained virtually unchanged throughout the 1991–2012 period.[5] This combination of a rapidly increasing share of employment and a stable share of output suggests that labour productivity expansion in the services sector has been very modest or even regressed. The next section presents an analysis of aggregate and sectoral labour productivity.

... while for the other LDC groups, the increase in the share of industrial output was the result of booming extractive industries.

Table 14. Manufacturing sector share of total output, 1991–2012
(Per cent and percentage points)

Output shares	Manufacturing			Change 1991–2012
	1991	2000	2012	
Developed economies	16	16	15	-1
ODCs	14	14	23	9
LDCs	9	10	11	1
African LDCs and Haiti	8	8	8	-1
Asian LDCs	11	12	16	5
Island LDCs	4	4	2	-2
Food and agricultural exporters	8	7	12	4
Fuel exporters	6	6	6	1
Mineral exporters	9	9	8	-1
Manufactures exporters	13	15	18	5
Services exporters	10	9	7	-2
Mixed exporters	9	9	12	2

Source: UNCTAD secretariat calculations, based on data from UN/DESA, Statistics Division, *National Accounts Main Aggregates Database* (accessed June 2014).
Note: Differences between the figures shown and the last column are due to rounding.

D. Trends in labour productivity

Increases in labour productivity are the major source of growth in GDP per capita.

A widely accepted stylized fact in economic development is that increases in labour productivity are the major source of growth in real gross domestic product (GDP) per capita. This section focuses on trends in labour productivity in the LDCs, and how they compare with observed trends in ODCs. This allows an assessment of whether the level of labour productivity in LDCs is converging towards, or diverging from, that of ODCs.

1. Trends in economy-wide labour productivity

Average output per worker in LDCs fell from almost 25 per cent of that in ODCs in 1991 to about 19 per cent in 2012.

Charts 25 and 26 provide an overview of aggregate and sectoral labour productivity performance in the LDCs. Chart 25 shows trends in ratios of labour productivity between the LDCs and the ODCs, overall and by sector. In the 1991–2012 period, labour productivity in the LDCs increased more slowly than in the ODCs, the gap widening in both relative and absolute terms for the LDCs as a group, for African LDCs and Haiti, and for Asian LDCs. This is shown in the charts by the decline in the ratio of LDCs' labour productivity to ODCs' labour productivity. Thus, most LDC groups have diverged from ODCs in terms of labour productivity, rather than converging towards them. Average output per worker in LDCs fell from almost 25 per cent of that in ODCs in 1991 to about 19 per cent in 2012.

Except for fuel exporters, the average worker in other LDCs produced less than 2 per cent of the output produced by the average worker in developed countries in 2012.

The average annual growth rate of labour productivity in LDCs between 1991 and 2012 was 1.4 percentage points below that of the ODCs (chart 26). While it was above that of the developed countries, the extent of catching up was minimal. With the exception of fuel exporters and island LDCs, the average worker in other LDCs produced less than 2 per cent of the output produced by the average worker in developed countries in 2012. These numbers emphasize the enormity of the task facing LDCs. If they are to catch up with today's developed economies, LDCs must grow much faster than in the post-2000 period, and for considerably longer. The relative labour productivity of the island LDCs rose from 4 per cent of the level in developed countries to 9 per cent between 1991 and 2012, while that of fuel-exporting LDCs increased from 5.4 per cent to 6.6 per cent over the same period.

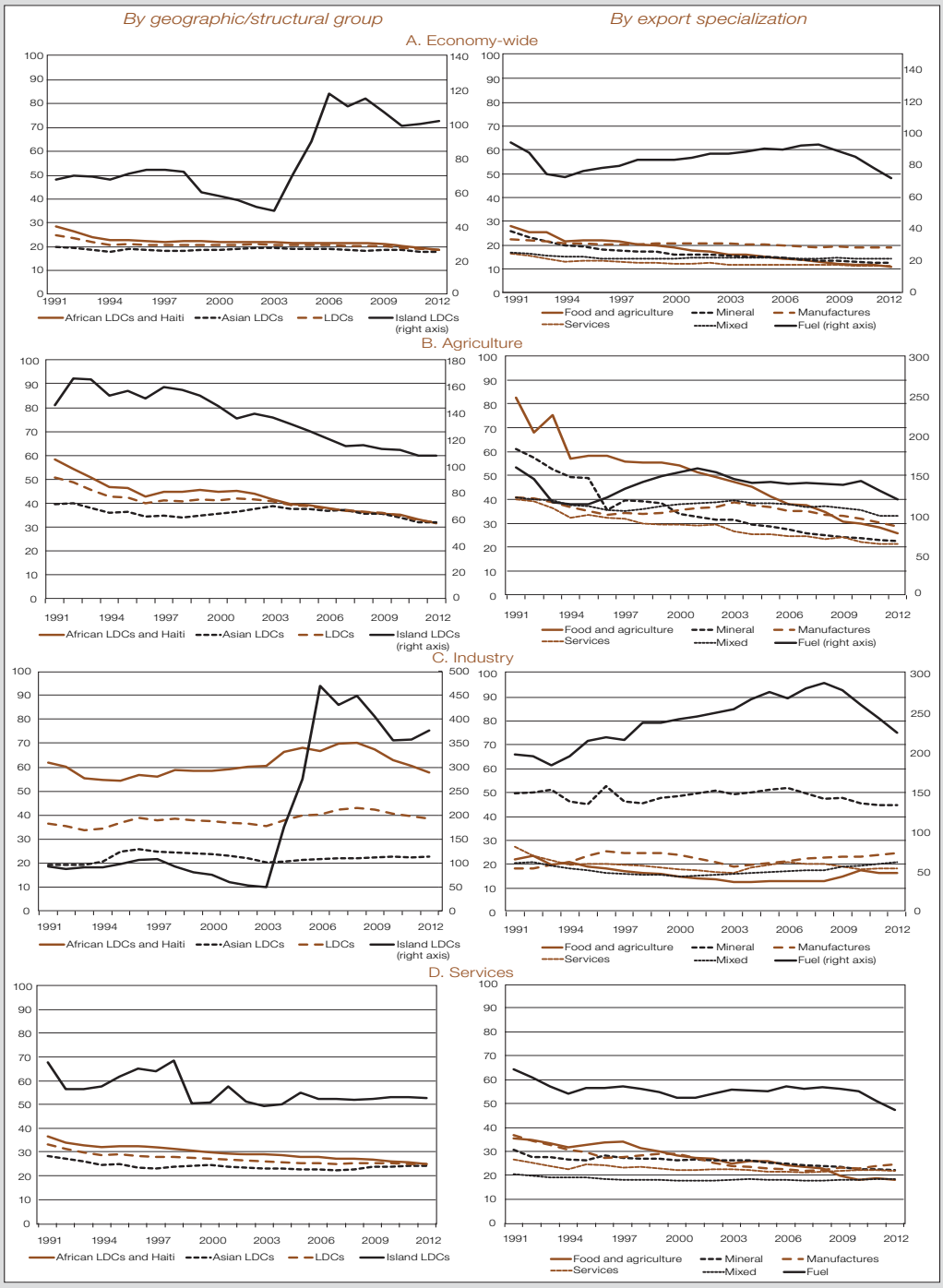
Productivity in African LDCs and Haiti expanded at 1.6 per cent annually, half the rate of the Asian LDCs.

The aggregate statistics for the LDCs hide considerable differences in the economic performances of the different categories. African LDCs and Haiti trailed the other two groups, their productivity expanding at 1.6 per cent annually, which was half the rate of growth recorded by Asian LDCs. Island LDCs' labour productivity declined in relative terms until the early 2000s. After 2003, however, their annual labour productivity growth increased to 5.8 per cent, driven by the inclusion in the group of Timor-Leste, where exploitation of oil and gas increased.

Fuel-exporting LDCs have the highest labour productivity, but this reflects a very high level of capital intensity, and their performance is the most volatile among the LDC groups.

Grouping LDCs by export specialization further highlights the challenges they face. While fuel-exporting LDCs have the highest labour productivity, this must be considered in the light of two countervailing factors. First, as can be observed in panel A of chart 25, their heavy dependence on fuel prices makes their performance the most volatile among the LDC groups. At its peak in 1991, labour productivity in fuel-exporting LDCs reached 95 per cent of the average output per worker in the ODCs, falling to 72 per cent in 2012. Second, the high labour productivity of the fuel sector reflects a very high level of capital-intensity. Since the fuel sector also typically has few backward and forward linkages with the rest of the economy, in some cases developing as an enclave, the benefits of rising labour productivity tend to spill over to the wider population only to a limited extent.

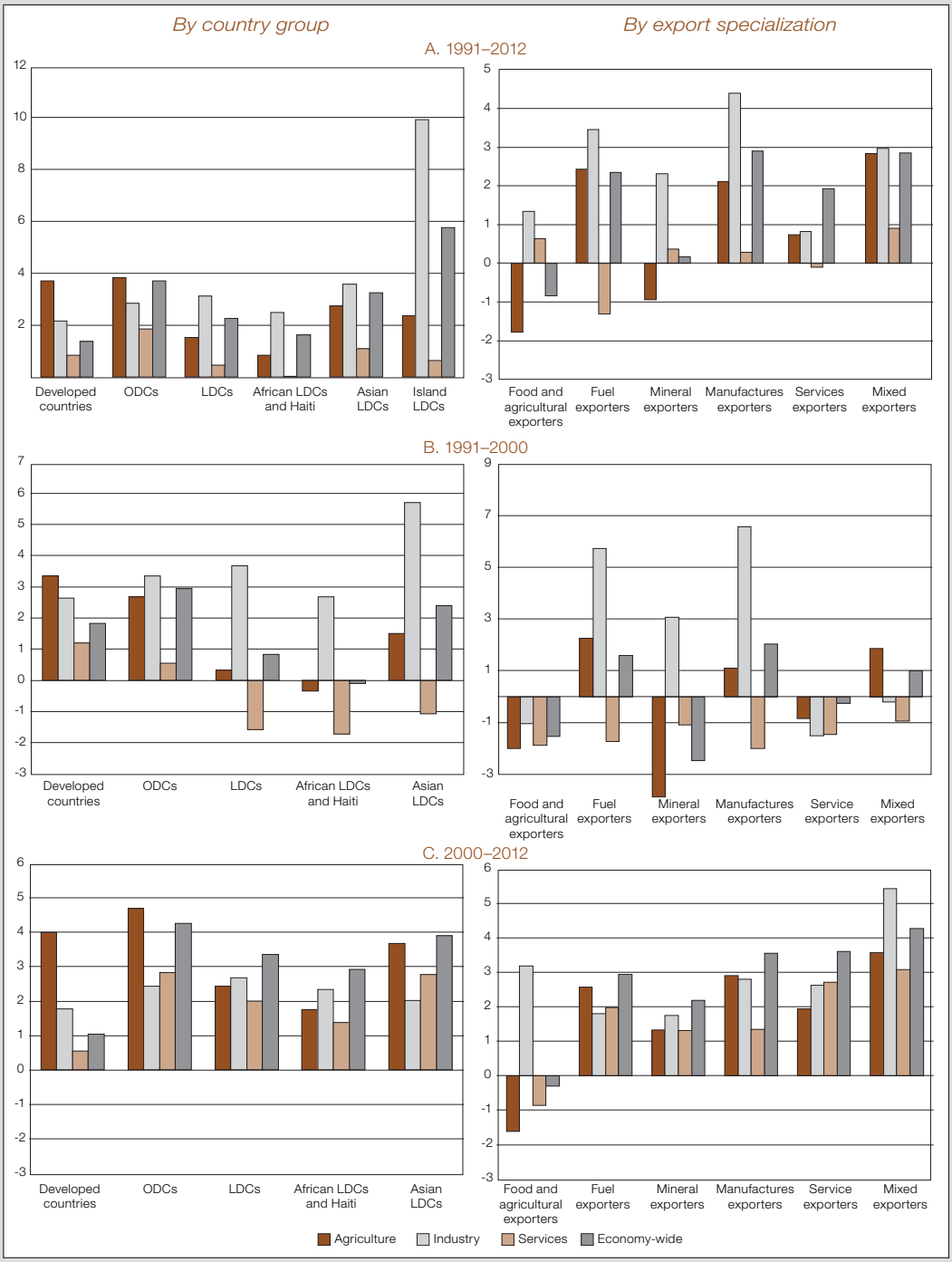
Chart 25. Economy-wide and sectoral labour productivity ratios between LDCs and ODCs, 1991–2012
(Per cent)



Source: UNCTAD secretariat calculations, based on data from UN/DESA, Statistics Division, *National Accounts Main Aggregates Database* for national accounts data (accessed June 2014); and ILO, *Global Employment Trends 2014* database for employment data (accessed June 2014).

Note: Food and agriculture: Food and agricultural exporters; Fuel: Fuel exporters; Mineral: Mineral exporters; Manufactures: Manufactures exporters; Services: Services exporters; Mixed: Mixed exporters.

Chart 26. Average annual growth rates of total and sectoral labour productivity in LDCs and ODCs, 1991–2012
(Per cent)



Source: As for chart 25.

Labour productivity grew relatively slowly in the exporters of manufactures and in mixed exporters in the 1990s, but this trend was reversed subsequently, attaining an average annual rate of increase of 2.9 per cent. Average annual output per worker in services exporters expanded by only 1.9 per cent, resulting in a fall of more than 5 percentage points relative to ODCs. The worst performers were exporters of food and agricultural products, and of minerals. The gap in their aggregate labour productivity relative to the ODCs widened substantially throughout the 1991–2012 period (panel A of chart 25). In food and agricultural

exporting LDCs, labour productivity declined in absolute terms, at an annual rate of about 0.8 per cent, while it stagnated in mineral exporters.

The performance of the LDCs over the 1991–2012 period has varied considerably, reflecting the wider tendency towards highly volatile economic growth in the poorest countries, with growth spurts followed by growth collapses (Hausmann et al., 2005; Ocampo and Parra, 2006). Growth rates of labour productivity differed markedly between the 1990s and the 2000s (chart 26). Most of the decline in LDCs' labour productivity relative to that of ODCs over the period as a whole was due to their poor economic performance during the 1990s, when aggregate output per worker expanded at the rate of only 0.8 per cent per year, compared with almost 3 per cent in ODCs, and 1.8 per cent in developed countries. Labour productivity growth in the 1990s was particularly slow in the African LDCs and Haiti, where it declined at an annual rate of 0.1 per cent.

Most of the decline in LDCs' relative labour productivity since 1990 has been due to their poor economic performance during the 1990s.

As noted in chapter 1 of this Report, more favourable global economic conditions and a rise in commodity prices at the turn of the century allowed accelerated economic growth in many LDCs. As a result, the average annual growth rate of output per worker in these countries accelerated to 4.2 per cent between 2000 and 2008. However, this growth spurt was brought to an end by the financial crisis that hit developed economies in 2008. Since then, labour productivity in the LDCs has expanded at 1.6 per cent — less than half the rate of previous years. Nonetheless, since 2000, in the LDCs as a group, labour productivity has grown by 3.4 per cent per year, and it has grown in all country groups, at varying rates, except in exporters of agricultural products. It has exceeded 4 per cent per year in the ODCs and the mixed exporters group of LDCs, and risen by 3.4 per cent or more in exporters of manufactured goods, services exporters and the Asian LDCs (chart 26).

Since 2000, the labour productivity of the LDCs as a group has grown by 3.4 per cent per year.

2. Trends in sectoral labour productivity

Aggregate labour productivity is the outcome of economic performance at the sectoral level and of transfers of labour between sectors, as discussed in section E of this chapter. Labour productivity in agriculture is particularly important for the LDCs, owing to its large share of output and employment. In this respect, the picture that emerges from charts 25 and 26 is not encouraging. Overall, agricultural output per worker in the LDCs increased at an average rate of 1.5 per cent per year in 1991–2012, much slower than in the ODCs where it grew at 3.8 per cent per year. This represents a considerable divergence between LDCs and ODCs in agricultural labour productivity (panel B of chart 25).

Agricultural output per worker in the LDCs increased at an average rate of 1.5 per cent per year in 1991–2012, much slower than in the ODCs, where it grew at 3.8 per cent.

There have been significant differences in the rate of growth of agricultural labour productivity among LDC groups. Asian and island LDCs, exporters of manufactures and fuels, and LDCs with a mixed export base recorded faster-than-average rates of increase in 1991–2012, at 2 per cent or more per year. However, agricultural labour productivity was largely stagnant in the African LDCs and Haiti, and in services exporters, and declined in food and agricultural goods exporters (by 1.8 per cent per year) and in mineral exporters (by 0.8 per cent per year).

Asian and island LDCs, exporters of manufactures and fuels, and LDCs with a mixed export base recorded faster-than-average increases in agricultural labour productivity in 1991–2012.

Surprisingly, at first sight, the LDCs as a group appear to have outperformed both the ODCs and the developed countries in growth of labour productivity in the industrial sector: output per worker increased at an annual rate of 3.1 per cent in the LDCs, compared with 2.8 per cent in the ODCs and 2.2 per cent in developed countries (chart 26). The Asian and island LDCs, exporters of manufactures, fuel exporters and mixed exporters performed best by this measure, recording impressive rates of increase in industrial labour productivity:

almost 10 per cent per year in the island LDCs, 4.4 per cent in exporters of manufactures and 3.5 per cent in fuel exporters.

Exporters of manufactures proved to be resilient to the negative external shocks wrought by the 2008–2009 crisis ...

However, panel A of chart 25 suggests a more nuanced story, highlighting the contrast between those LDCs where the industrial sector is dominated by manufacturing and those where it is dominated by extractive industries. Exporters of manufactures (primarily Asian LDCs) proved to be resilient to the negative external shocks wrought by the 2008–2009 crisis, increasing their industrial labour productivity ratio by almost 6 percentage points between 2003 and 2012. In those LDCs where the industrial sector is dominated by extractive industries, by contrast, the 2008 global economic crisis pushed labour productivity into a steep decline. This substantiates the findings of the previous section regarding patterns of structural change in the industrial sector in LDCs. It also underlines the vulnerability of economies that are dependent on natural resources, and the importance of diversifying their production structures. Indeed, in LDCs with a diversified export based (the mixed exporters), industrial labour productivity increased by 5 percentage points between 2003 and 2012 and they proved to be resilient in face of the negative external shocks brought about by the crisis, similarly to the exporters of manufactures.

... but it pushed labour productivity into a steep decline in those LDCs where the industrial sector is dominated by extractive industries.

Labour productivity in services has varied much less among LDC groups (panel D of chart 25). It did not show strong growth in any of those groups between 1991 and 2012, with an average annual rate of increase of only 0.4 per cent. Output per worker in services grew faster than 1 per cent per year only in the Asian LDCs and the mixed exporters, compared with an average of 1.8 per cent per year for ODCs. As noted above, employment in services grew rapidly in all the LDCs between 1991 and 2012, partly as a result of rural-urban migration. Since urban industry (and especially manufacturing) is not able to absorb most rural migrants, they are obliged to resort to service activities where most of the jobs created have been low-productivity, informal jobs. Rising informality is a serious impediment to development efforts in the LDCs. Moreover, since low productivity is associated with low incomes, low-productivity jobs not only restrain dynamic structural transformation, but also keep workers in poverty.

Labour productivity in services did not show strong growth in LDCs between 1991 and 2012 ...

... as rural-urban migrants unable to secure industrial employment resorted to employment in low-productivity informal sector services.

E. Decomposition of labour productivity growth

Aggregate economic indicators can often be decomposed to capture contributions by individual sectors. This section discusses sectoral contributions to aggregate labour productivity and to the employment-to-population ratio in the various country groups. The Divisia index growth decomposition is used, and is expressed in multiplicative form.[6]

1. Main sources of aggregate labour productivity growth

Aggregate labour productivity growth can be decomposed into three main components that capture contributions from changes within and between sectors:

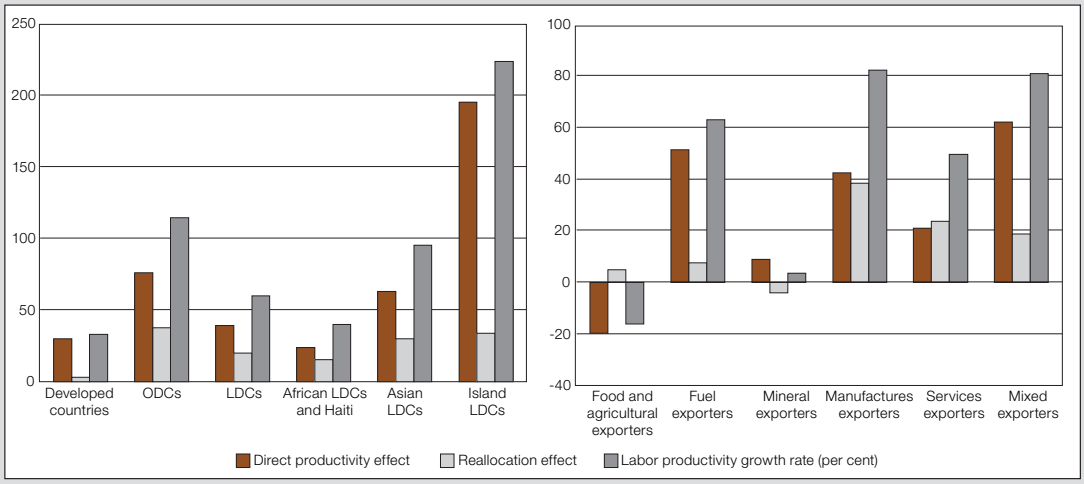
Low-productivity jobs not only restrain dynamic structural transformation, but also keep workers in poverty.

- A direct productivity growth effect D_{prod} measuring changes in aggregate output per worker due to increases in productivity within each sector;
- A structural or reallocation effect D_{str} reflecting the impact on aggregate labour productivity of movements of labour between sectors with different levels of output per capita; and
- A terms-of-trade effect D_{price} reflecting changes in relative output prices between sectors.[7]

All the decomposition terms are weighted by each sector's share in nominal value added. In other words, the Divisia index is the sum of the logarithmic growth rates of these components, weighted by each sector's share in total value added (Ang, 2004).

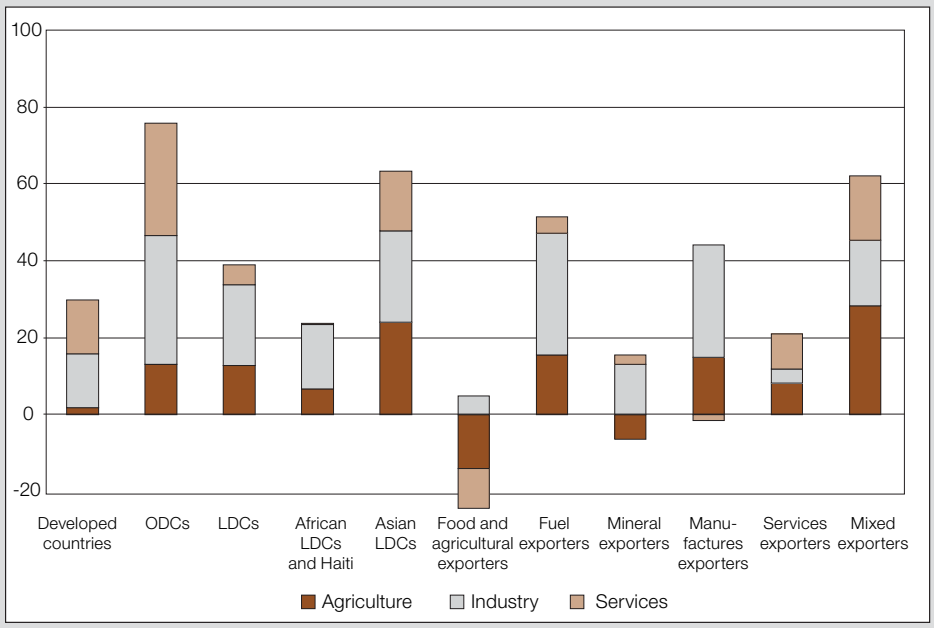
The results of this decomposition, focusing on direct productivity growth and reallocation effects, are presented in table 15 and charts 27 and 28. Three major features emerge from this analysis.

Chart 27. Labour productivity growth by component effects, 1991–2012
(Per cent)



Source: As for chart 25.

Chart 28. Sectoral contributions to labour productivity growth from direct productivity effect, 1991–2012
(Per cent)



Source: As for chart 25.

Table 15. Sectoral contribution to labour productivity growth, 1991–2012
(Divisia index decomposition)

		Direct productivity effect	Reallocation effect	Terms-of-trade effect	Labour productivity growth rate (Per cent)	Contribution to employment
Developed countries	Agriculture	1.7	-1.4	-0.8		
	Industry	14.0	-10.1	-3.0		
	Services	14.3	14.4	4.2		
	Total	29.9	2.9	0.4	33.3	
ODCs	Agriculture	13.1	-7.4	0.4		-17.2
	Industry	33.4	13.5	2.7		7.0
	Services	29.2	31.2	-1.8		16.4
	Total	75.7	37.3	1.2	114.2	6.1
LDCs	Agriculture	12.6	-5.3	-3.4		-5.0
	Industry	21.0	5.2	6.2		2.0
	Services	5.2	19.9	-1.3		9.6
	Total	38.9	19.8	1.4	60.0	6.6
African LDCs and Haiti	Agriculture	6.7	-3.5	-4.2		-3.0
	Industry	16.7	5.9	7.2		1.5
	Services	0.3	13.0	-2.0		6.8
	Total	23.6	15.5	1.0	40.1	5.3
Asian LDCs	Agriculture	23.9	-9.1	-1.9		-7.9
	Industry	23.7	6.0	4.0		3.8
	Services	15.6	33.1	0.2		14.5
	Total	63.3	29.9	2.3	95.5	10.4
Island LDCs	Agriculture	21.0	-8.5	-6.1		-20.4
	Industry	165.9	21.9	-3.9		0.8
	Services	8.5	20.3	4.7		4.1
	Total	195.4	33.7	-5.4	223.8	-15.4
Food and agricultural exporters	Agriculture	-14.3	-1.7	2.1		-0.6
	Industry	4.7	0.4	-15.9		0.5
	Services	-10.2	6.2	12.5		3.9
	Total	-19.7	4.9	-1.3	-16.1	3.8
Fuel exporters	Agriculture	15.3	-3.8	-13.4		-2.4
	Industry	32.0	2.1	23.4		1.3
	Services	4.1	9.1	-5.9		9.7
	Total	51.4	7.4	4.1	62.9	8.5
Mineral exporters	Agriculture	-6.6	0.2	2.3		4.4
	Industry	12.9	-5.6	-0.9		-0.8
	Services	2.4	1.5	-2.7		1.7
	Total	8.8	-3.9	-1.3	3.5	5.3
Manufactures exporters	Agriculture	14.7	-8.8	-1.9		-9.7
	Industry	29.4	3.0	-2.7		3.0
	Services	-1.6	44.3	5.9		19.1
	Total	42.5	38.4	1.3	82.2	12.4
Services exporters	Agriculture	8.2	-6.8	0.1		-7.4
	Industry	3.6	10.3	2.1		3.6
	Services	9.3	20.2	2.5		7.2
	Total	21.0	23.6	4.7	49.3	3.4
Mixed exporters	Agriculture	28.2	-6.6	2.0		-3.2
	Industry	17.3	7.1	2.6		3.1
	Services	16.7	18.4	-5.0		9.9
	Total	62.1	18.8	-0.4	80.5	9.8

Source: As for chart 25.

First, better economic performance is associated with a combination of significant contributions from changes within and between sectors. From an analytical perspective, rapid expansion of output per worker at the aggregate level can result from large productivity gains within sectors alone. However, both theoretical arguments and empirical evidence suggest that, at the LDCs' stage of development, sustained economic growth also requires structural change. Country groups with an annual rate of growth of 3 per cent or more have experienced both faster rates of growth of productivity within sectors and more profound changes in sectoral shares of employment. Sectoral reallocation of labour has contributed 30 or more percentage points to the expansion of aggregate productivity in the ODCs, Asian and island LDCs and exporters of manufactured goods. However, the nature and direction of structural change is also important.

Better economic performance is associated with a combination of significant contributions to higher aggregate productivity from changes within and between sectors.

Second, among all LDC groups, only exporters of manufactures surpassed ODCs' record on productivity gains caused by intersectoral reallocation of labour. Notwithstanding the high level of aggregation, these numbers reflect important differences in the pace and nature of structural transformation between LDCs and ODCs. Among the geographical/structural LDC groups, direct productivity and reallocation effects have been greatest in island LDCs, once again due to Timor-Leste. Asian LDCs are second, with a 63.3 percentage point contribution from sectoral productivity growth and 30 percentage points from faster employment growth in higher productivity sectors. Economic performance in the African LDCs and Haiti has been much more modest: neither improvements in sectoral output per capita nor changes in the composition of employment have been strong enough to expand aggregate labour productivity as much as in other LDC regions. The weight of African LDCs and Haiti in total LDC population and output means that the decomposition results for LDCs as a whole primarily reflect the performance of this group.

Among all LDC groups, only exporters of manufactures surpassed ODCs' record on productivity gains caused by intersectoral reallocation of labour.

Third, there is a greater imbalance between the contributions of productivity increases within sectors and of reallocation between sectors in LDCs that are dependent on extractive industries than in other LDC groups. In the island LDCs and fuel and mineral exporters, increases in productivity within sectors are responsible for more than 80 per cent of the overall rise in productivity. The proportions are, in fact, very similar to those for developed countries, the important difference in this comparison being that the economic structure of developed countries has reached maturity, while in LDCs it is an ongoing process. In developed countries, the great majority of workers are employed in productive activities, whereas most workers in LDCs remain in activities characterized by very low levels of productivity.

There is a greater imbalance between the contributions of productivity increases within sectors and of reallocation between sectors in LDCs that are dependent on extractive industries than in other LDC groups.

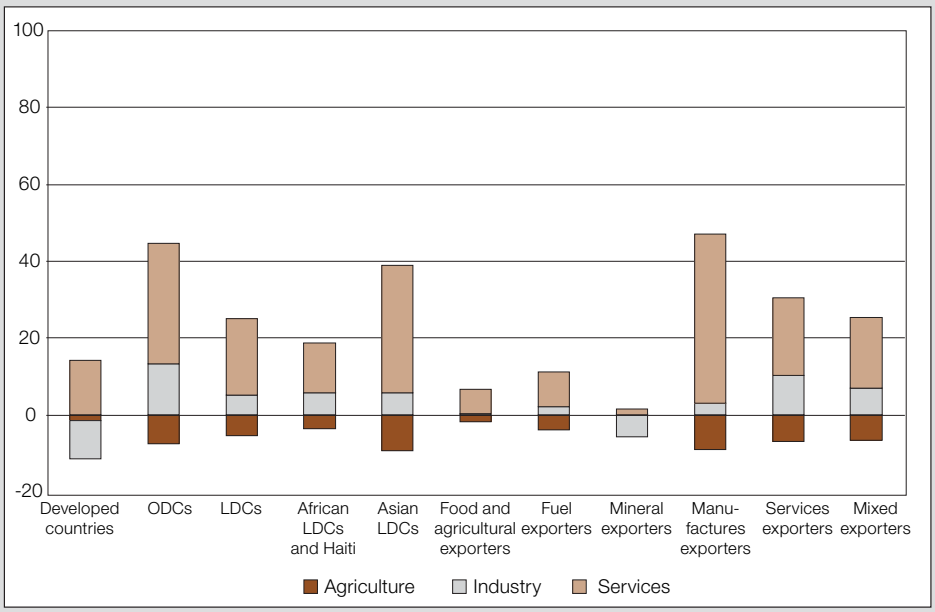
These results thus reflect a lack of structural transformation in many LDCs, particularly the fuel and mineral exporters. Between 1991 and 2012, reallocation of labour between sectors contributed only 4.9 percentage points to labour productivity expansion in fuel exporters, and led to a decline of 3.9 percentage points in mineral exporters. In island LDCs, while the rise in aggregate labour productivity is accounted for mostly by direct productivity effects, reallocation effects give rise to a 34-percentage-point increase in output per worker, comparable to other, more dynamic, developing economies. Once again, however, most of the dynamic structural change occurred in Timor-Leste.

Structural transformation has been slow in many LDCs, particularly the fuel and mineral exporters.

2. Sectoral contributions to labour productivity growth

Charts 29 and 30 show direct productivity and reallocation effects by sector, thus providing further insights into the sources of overall economic performance and the nature of structural transformation in the LDCs. The main conclusions are summarized by the correlation coefficients in table 16.

Chart 29. Sectoral contributions to labor productivity growth from reallocation effects, 1991–2012
(Per cent)



Source: As for chart 25.

Higher aggregate output per worker is most strongly associated with higher productivity in the industrial sector, and with the transfer of workers to this sector.

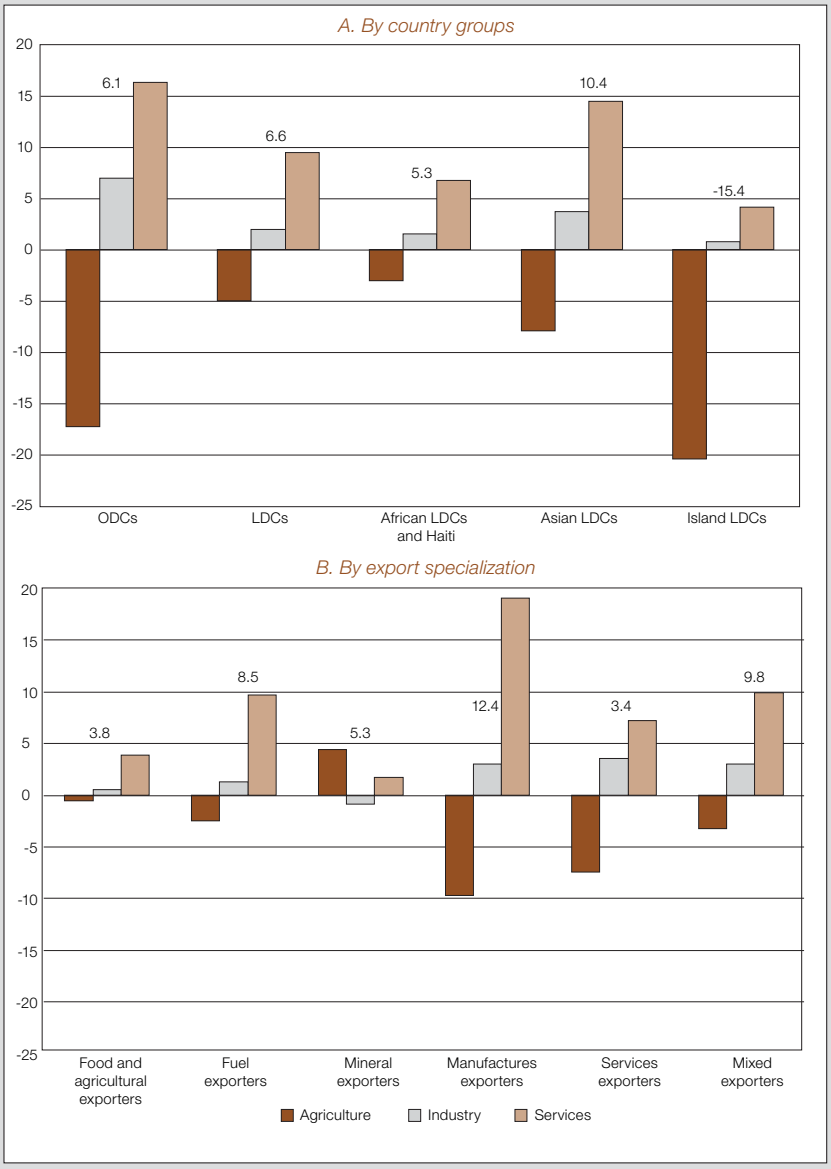
First, higher aggregate output per worker is most strongly associated with higher productivity in the industrial sector, and with the transfer of workers to this sector. This observation is in line with the traditional structuralist view of the industrial sector as the main driver of productivity gains and productive structural transformation in developing countries (Ocampo et al., 2009; Ocampo, 2005). However, not all industries are the same. The manufacturing sector, in particular, is considered the "leading sector" due to its greater economies of scale, fast learning and potential for the adoption of new and better technologies, as well as its deep linkages with the rest of the economy (Ocampo, 2005).

The industrial sector has been the most dynamic in the ODCs, contributing 33.4 percentage points in direct productivity gains and 13.5 percentage points as a result of its absorption of labour (table 15, and charts 28 and 29). It is this pattern, combining large gains in productivity and in employment in high productivity activities, which is needed for successful transformation and sustained economic growth. While industrial productivity and the shifting of labour to industry has been significant in island LDCs as well, the pattern for other LDC groups has been mixed. Some LDC groups experienced large contributions from productivity growth within the industrial sector, notably Asian LDCs (23.7 percentage points), fuel exporters (32 percentage points) and exporters of manufactures (29.4 percentage points). However, their gains from reallocation of labour to industry have been more modest: 6 percentage points for the Asian LDCs, and less for the others.

The second most important contributor to aggregate productivity growth is agriculture, given its share in output and employment.

The second most important contributor to aggregate productivity is agriculture, given its share in output and employment. More than half the LDC groups had positive contributions — in double digits — from direct productivity gains in agriculture between 1991 and 2012. In mixed exporters, for example, agricultural output per worker increased by 2.8 per cent per year, adding 28.2 percentage points to economy-wide labour productivity over the period as a whole. Contributions from productivity within the agricultural sector were also

Chart 30. Sectoral contributions to growth in employment-to-population ratio, 1991–2012
(Per cent)



Source: UNCTAD secretariat calculations, based on data from ILO, *Global Employment Trends 2014* database for employment data (accessed June 2014); UN/DESA, *Demographic Yearbook Database* for population data (accessed June 2014).
Note: The figures above the bars indicate the rate of change of the *aggregate* employment-to-population ratio growth.

Table 16. Correlation of aggregate labour productivity growth and its decomposition terms
(Correlation coefficients)

	Between direct and aggregate productivity	Between reallocation and aggregate productivity	Between reallocation and direct productivity
Agriculture	0.73	-0.75	-0.80
Industry	0.88	0.81	0.67
Services	0.46	0.50	0.37

Source: As for chart 25.

positive, though less impressive, in the African LDCs and exporters of services, but negative in exporters of minerals, and in exporters of food and agricultural products.

Reallocation effects in agriculture were negative for all groups, reflecting a reduction in its share in employment as a result of a reallocation of labour to other, higher productivity sectors. This is a positive sign. Indeed, the correlation coefficient between agricultural reallocation terms and aggregate productivity in table 16 is -0.75, confirming that a negative reallocation term for the agricultural sector is associated with higher productivity growth.

Challenges to the structural transformation of the services sector in many LDCs include its largely informal nature, limited productive capabilities and a generally low level of capital and information technology.

While most of the labour force in LDCs is employed in agriculture, the highest rates of employment growth have been registered in the services sector. This presents policymakers with potential opportunities as well as challenges. The conceivable opportunities can be found in potential linkages between the services sector and high productivity industrial activities. Integration of activities across sectors could foster technological and human capital spillovers, and therefore faster growth in labour-intensive activities such as services. However, this is not the situation prevailing in LDCs, where policy efforts aimed at the structural transformation of the services sector face the challenges of the informal nature of many service activities, a lack of productive capabilities — especially at the firm level — and a generally low level of capital and information technology (Salazar-Xirinachs et al., 2014). Coupled with a weak development policy framework, these constraints have been responsible for the lack of dynamism in the services sector in many LDCs (as well as ODCs), as employment growth in this sector has often been at the expense of gains in labour productivity.

In many LDCs, employment growth in the services sector has been at the expense of gains in labour productivity.

However, the decomposition analysis reveals a diverse picture concerning the performance of the services sector across country groups. The sector added double-digit gains in direct productivity only in developed countries, ODCs, Asian LDCs and the mixed exporters group of LDCs. Even among these groups, there were significant differences: services contributed 29.2 percentage points in direct gains to overall labour productivity in the ODCs, followed, at a distance, by mixed exporter LDCs, with 16.7 percentage points. In none of the other groups did the services sector show significant increases in aggregate labour productivity; indeed it actually declined in the LDC exporters of food and agricultural products, and in the exporters of manufactures. This shows that the performance of the services sector had an adverse impact on overall economic performance of the latter LDC groups.

The figures for the LDCs confirm that most of the jobs created in services are characterized not only by low productivity, but also by strongly decreasing marginal productivity. In the exporters of manufactures, for example, growth of employment in services moved inversely with labour productivity. Between 1991 and 2005, employment in services expanded at an average annual rate of more than 7 per cent, while output per worker declined by 2.3 per cent. By contrast, the slowdown in employment growth to 1.7 per cent per year after 2005 was accompanied by an increase in productivity, at an average annual rate of 4.5 per cent.

While direct productivity gains within services have been modest, reallocation of employment to this sector has been the largest source of expansion in aggregate labour productivity in the LDCs.

While direct productivity gains within services have been modest, reallocation of employment to this sector has been the largest source of expansion in aggregate labour productivity in all LDC groups. Among LDC exporters of manufactures, for example, the reallocation term for the services sector explains more than half of the overall increase in labour productivity since 1991 (44.3 percentage points). However, the rise in the proportion of employment in sectors with above-average labour productivity must be accompanied by an increase in output per worker. This will not only ensure continuity of growth, but will also improve the prospects for achieving development goals.

3. Divisia index decomposition of the employment-to-population ratio

The first challenge for the LDCs is to generate more jobs for their increasing labour force. However, merely creating more jobs is not sufficient; the jobs must also be more productive and better paid. Although an in-depth analysis of the types of jobs created in the LDCs is not possible based on the available data, it is possible to identify which sectors have been the main drivers of employment generation. The discussion in this section adds to the previous analysis on employment trends and the composition of employment in LDCs.

Merely creating more jobs in LDCs is not sufficient; the jobs must also be more productive and better paid.

Using the Divisia decomposition method, the economy-wide growth rate of the employment-to-population ratio is given by the average of the sectoral rates of increase, weighted by their labour shares. A sector creates jobs in excess of population growth if its output per capita grows faster than its labour productivity. This condition can be expressed as the ratio of the income per capita index, (D_{inc}), to the productivity index, (D_{prod}), that is $D_{empl} = D_{inc}/D_{prod}$.

This subsection seeks to combine this decomposition with the analysis of sectoral contributions to aggregate labour productivity, in order to identify the most dynamic sectors in the LDCs, defined as sectors which create jobs, and where both output per capita and labour productivity grow rapidly (that is, where both D_{inc} and D_{prod} are positive and large). The results are presented numerically in the last column of table 15, and visually in chart 30. The aggregate employment-to-population ratio was higher in 2012 than in 1991 for all country groups except for the island LDCs, where sectoral employment, especially in services, grew considerably more slowly than in the other LDC groups.

The aggregate employment-to-population ratio was higher in 2012 than in 1991 for all country groups except for the island LDCs.

The first conclusion from chart 30 is that the agricultural sector appears to be characterized by a trade-off between employment generation and labour productivity similar to that noted above in the services sector. The employment-to-population ratio in the services sector increased in all the country groups, but in the agricultural sector it declined in all the groups except exporters of minerals. Relative to population growth, employment in services grew most strongly in the ODCs, the Asian LDCs and the LDC exporters of manufactures, where it added double-digit percentage points to the aggregate employment-to-population ratio. The smallest contribution by the services sector was recorded in the LDC exporters of agricultural products and minerals, and to a lesser extent, in the island LDCs, where the overall employment-to-population ratio declined. In the LDCs as a group, the services sector added 9.6 percentage points to the aggregate employment-to-population ratio, but with marked differences between fast- and slow-growing country groups.

The agricultural sector appears to be characterized by a trade-off between employment generation and labour productivity similar to that in the services sector.

Among the more rapidly growing countries, the positive contribution of services to employment growth in the ODCs, the Asian LDCs and the mixed LDC exporters was the result of output per capita growth in services outpacing the productivity increases that underlie its overall positive contribution to growth (chart 27). Exporters of manufactures appear to have the least dynamic services sector among the faster growing groups. Employment generation in this group was accompanied by stagnating labour productivity, indicating that most of the jobs created were in low-productivity (generally informal) activities. The same pattern applies to most of the slower growing groups, where, although employment in services increased significantly, the sector's direct contribution to economy-wide productivity growth was generally insignificant or negative. Underemployment in services thus appears to have been the major mechanism to absorb the excess supply of labour in these economies. Nonetheless, since average productivity in services is higher than in agriculture, which is the main source of labour supply, the reallocation effects (reflected in chart 29) added to overall productivity growth.

Underemployment in services appears to have been the major mechanism to absorb the excess supply of labour in slower growing LDC groups.

The industrial sector in ODCs added 7 percentage points to the employment-to-population ratio. The next best performers in industrial employment, with contributions ranging between 3 and 3.8 percentage points, were the Asian LDCs, and the manufactures, services and mixed exporters. Consistently with charts 29 and 30, the rate of productivity growth in the industrial sector tended to exceed that sector's growth in output per capita. This conforms to a structuralist observation in development economics, that the industrial sector is the main motor of productivity increases but not necessarily of job creation (Ocampo et al., 2009).

The rate of productivity growth in the industrial sector tended to exceed the sector's growth in output per capita.

F. Structural transformation, economic growth and the MDGs

This section builds on the preceding analysis to examine the links between structural transformation, economic growth and progress towards the MDGs in the LDCs. In particular, it examines how changes in the structure of the LDCs' economies since the early 1990s relate to their observed progress in economic and human development in a number of areas. It also studies how differing degrees of structural transformation affect the growth-MDGs nexus, and to what extent divergences in performance relative to the MDGs between LDCs with comparable economic growth rates can be explained by differences in processes of structural and productive transformation.

1. Structural transformation and economic growth

There is a positive relationship between the overall growth rate and changes in employment shares in services and industry in LDCs.

Chart 31 presents scatter plots of annual growth rates in value added per capita against percentage point changes in the employment shares of the three broad sectors. Rapidly growing country groups show significant structural changes in employment shares across all sectors, but particularly for agriculture and services. The observed changes are in the classical direction: from agriculture to industry and, mostly, to services, similar to the process of structural transformation undergone by countries now at higher levels of income. The negative correlation for agriculture, shown in panel A of chart 31, contrasts with the positive correlations in the other panels, showing the positive relationship between the overall growth rate and changes in employment shares in services and industry. In line with insights from traditional structuralist economics, more dramatic structural shifts in employment away from agriculture are associated with higher rates of economic growth.

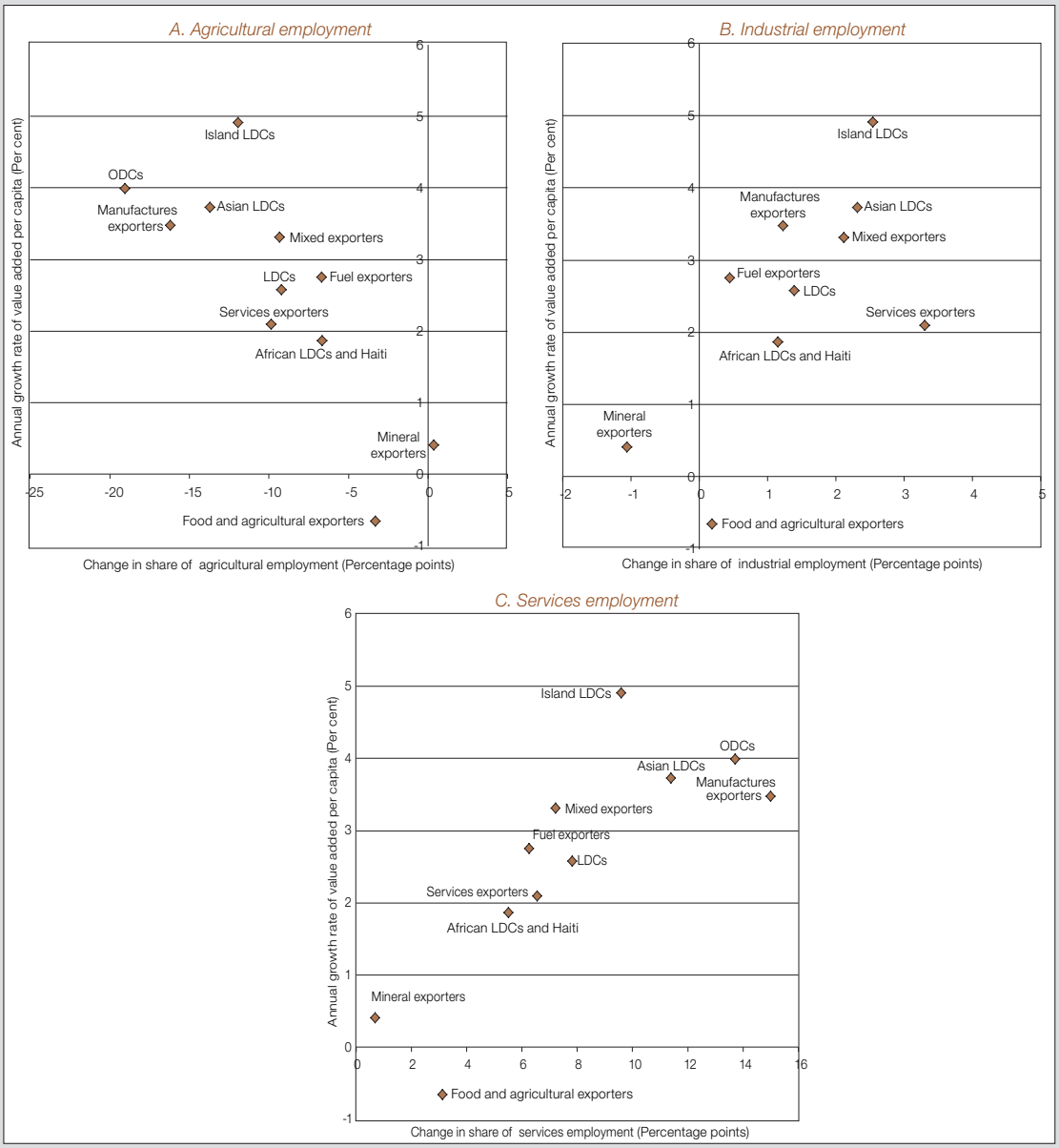
Stronger structural shifts in employment away from agriculture are associated with higher rates of economic growth.

Chart 26 underlines the importance of productive structural transformation for overall economic performance in the LDCs. Their economic growth appears to have resulted from two separate processes. First, there has been a shift of employment from low-productivity agricultural activities to service activities with higher productivity. However, this shift has not been accompanied by an equivalent increase in output growth in the services sector. As a result, as is evident in chart 26, labour productivity in services expanded only modestly over the period. The second source of growth is labour productivity in industry, which was faster than in agriculture or services in 1991–2012 in all LDC groups. The challenge in industry has been the creation of enough jobs to increase the sector's share in total employment.

2. Structural transformation and human development

This subsection presents a Structural Transformation Index based on the first Divisia index results analysed in section E above. This excludes the component

Chart 31. Structural changes in the composition of employment and annual growth rates of output per capita, 1991–2012



Source: As for chart 25.

reflecting variations in relative prices (i.e. the terms-of-trade effect) so as to focus on changes in aggregate productivity arising from productivity changes within sectors and reallocation between sectors. The Index is thus calculated as the simple arithmetic sum of the direct productivity term measuring gains in aggregate output per worker due to increases in productivity within each sector, and the reallocation term capturing the effects of changes in employment shares between sectors.

The following analysis considers two critical aspects of human development: poverty (MDG 1) and enrolment in primary education (MDG 2). It considers whether LDCs' progress in these areas since 1991 is related to their structural and productive transformation during this period. Panel A of chart 32 presents the performance of all LDCs relative to target 1A of MDG 1 (halving the

Countries where transformation was faster performed better in terms of poverty reduction than those where transformation was slower.

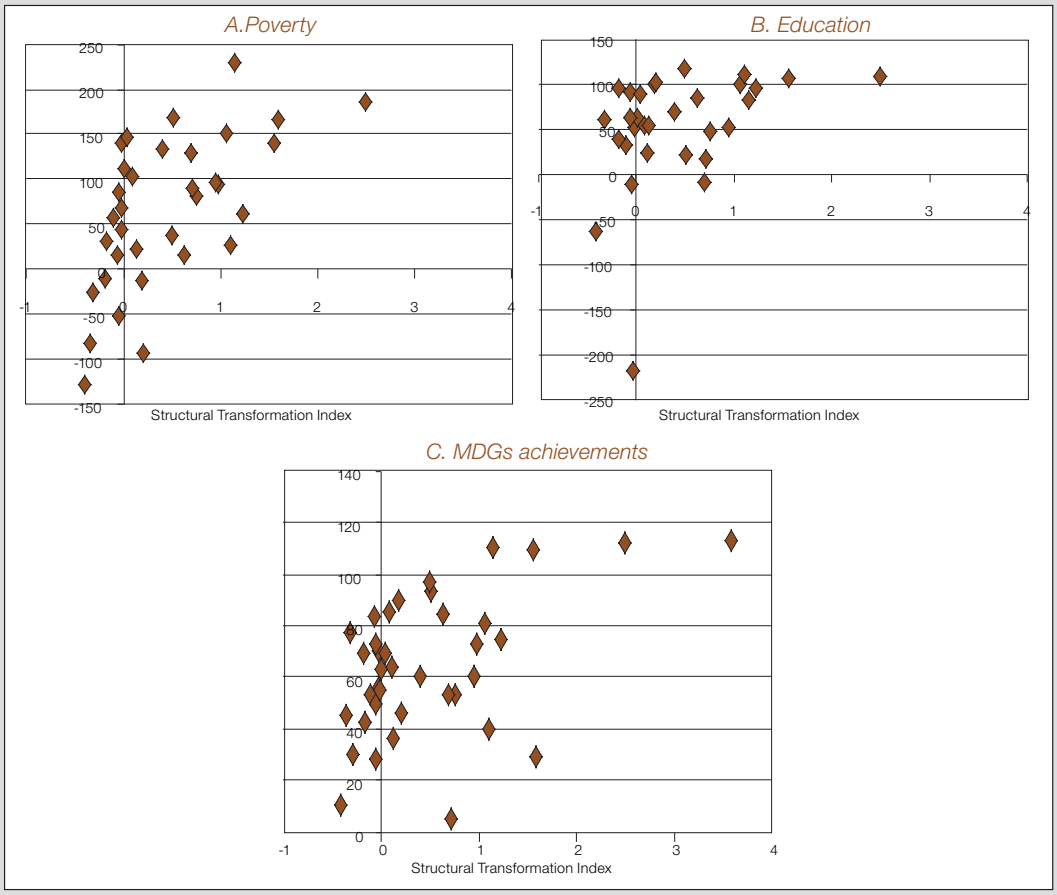
poverty headcount ratio at the $1.25-a-day poverty line) against the Structural Transformation Index. It suggests a strong and positive association between structural change and progress in halving poverty: countries that achieved faster transformation performed better in terms of poverty reduction than those where transformation was slower. Asian LDCs such as Bhutan, Cambodia and Nepal, which have experienced rapid transformation of their economic structures over the past two decades, have also been among the highest achievers in reducing poverty.

There is a significant positive correlation between structural change and average progress across MDG targets.

A similar result holds for educational attainment: as depicted in panel B of chart 32, progress in primary school enrolment appears to be strongly related to structural transformation, economies performing satisfactorily on MDG 2 also displaying, on average, higher rates of transformation.

This pattern is generally replicated across other MDG targets, suggesting a significant positive correlation between structural change and the average progress across all the MDG targets analysed in chapter 2 of this Report, as shown in panel C of chart 32.

Chart 32. Progress towards MDG and Structural Transformation Index in LDCs
(Per cent)



Source: As for chart 25; and World Bank, *World Development Indicators* database and *PovCalNet* (accessed August 2014).
Notes: The Structural Transformation Index is the arithmetic sum of the first two components of the first Divisia index (i.e. the direct productivity term which measures gains in aggregate output per worker due to increases in productivity within sectors, and the reallocation term capturing changes in employment shares across sectors with different levels of output per capita).
MDGs achievement is the average of the degree of achievement of the seven MDG targets analysed in chapter 2 of this Report.

Structural change and sustained increases in labour productivity are necessary for the income growth needed to achieve development goals, as discussed in chapter 2 of this Report. This double nexus partly explains why there is such a strong correlation between progress towards the MDGs and the Structural Transformation Index.[8]

Structural change and sustained increases in labour productivity are necessary for the income growth needed to achieve development goals.

3. The interaction between structural transformation, economic growth and human development

The rise and decline of economic sectors leads to constant changes in the opportunities available to people and the capabilities required of them. This can either favour social mobility and innovation, or, conversely, create unsustainable levels of inequality in income and knowledge, hampering dynamic economic development. By simultaneously increasing productivity within sectors and shifting labour from lower- to higher-productivity sectors, the type of productive structural transformation discussed in this Report would increase the number and quality of jobs, and thus facilitate the achievement of human development objectives for a given rate of income growth.

The impact of structural transformation on the relationship between growth and human development can be investigated by comparing dynamic and lagging LDC economies — those with a value of the Structural Transformation Index respectively above and below the LDC average — in terms of the relationship between their economic growth and MDG performance. With the exception of MDG 4 (reducing the under-five mortality rate), the correlation between average annual per capita income growth over the period 1991–2012 and performance relative to the MDG targets is consistently stronger in the dynamic economies than in the lagging economies.

The correlation between average annual per capita income growth and performance relative to the MDG targets is consistently stronger in the dynamically transforming LDCs than in the lagging economies.

Panel A of Chart 33 presents data on primary education enrolment as an illustration. It shows that those countries experiencing a faster-than-average structural transformation display a much stronger correlation between growth and net primary enrolment ratios than those where transformation has been slower, the impact of income growth in the latter case being close to zero. Panel B of chart 33 shows the varying impact of growth on the completion rate of target 1C of MDG 1 (undernourishment). Again, the association with growth is strongly positive for dynamic economies, but negligible in the lagging economies. Panel C repeats the exercise for target 7C of MDG 7 (halving the number of people without access to sanitation). While the impact of income growth here is significantly different form zero even in lagging LDCs, the correlation coefficient is much higher for the dynamic economies.

These results strongly support the finding that economic growth is much more effective in improving the living conditions of the most vulnerable people where it is accompanied by structural transformation.

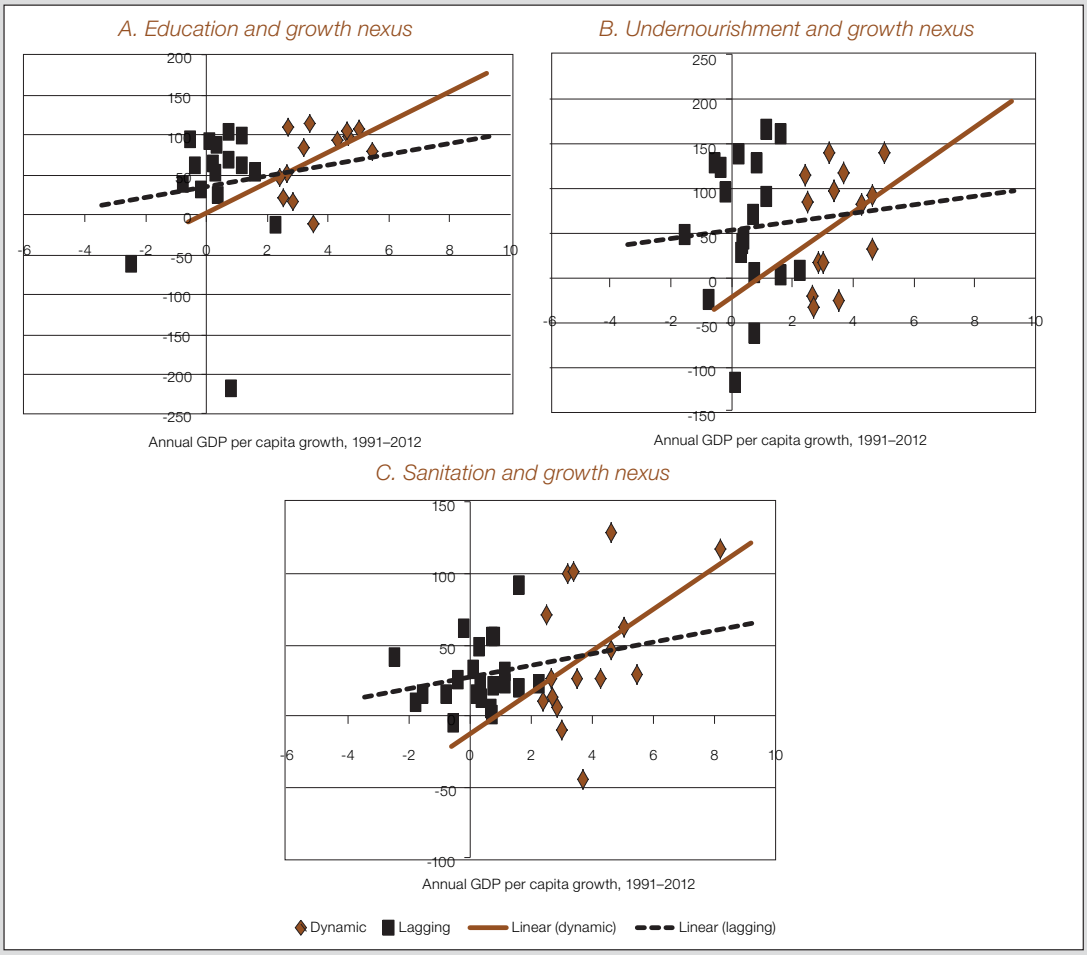
Economic growth is much more effective in improving the living conditions of the most vulnerable people where it is accompanied by structural transformation.

G. Summary and conclusions

The failure of most LDCs to achieve the majority of MDG targets mainly reflects their limited success in creating decent, productive and adequately paid jobs. This, in turn, is due to the failure of most LDCs to achieve significant structural transformation; that is, to reallocate labour towards higher-productivity sectors and sustain strong labour productivity growth within sectors.

The failure of most LDCs to achieve the majority of MDG targets mainly reflects their limited success in creating productive and adequately paid jobs and in achieving significant structural transformation.

Chart 33. Impact of structural transformation on the nexus between growth and selected MDGs in LDCs
(Per cent)



Source: As for chart 32.
Notes: LDC economies are divided in two groups around the sample average of the Structural Transformation Index (0.48). Dynamic economies are those countries with above average index value and lagging economies are the remaining ones.

Growth of overall productivity has been strongest in exporters of manufactures and mixed exporters, but it has stagnated in mineral exporters, and declined in food and agricultural goods exporters.

Growth of overall productivity has varied considerably among LDC groups since the 1990s. It has increased the most in exporters of manufactures and mixed exporters, but stagnated in mineral exporters, and declined in food and agricultural goods exporters. Labour productivity growth in the Asian LDCs has been double that in the African LDCs and Haiti.

The largest single source of expansion in aggregate labour productivity in all LDC groups has been the shift of labour from agriculture to services.

The largest single source of expansion in aggregate labour productivity in all LDC groups has been the shift of labour from agriculture to services. This has also been the largest intersectoral movement of labour, greater than the movement from agriculture to industry. The greatest decline in the agricultural sector's share of employment has occurred in exporters of manufactures (mainly Asian LDCs), but it has stagnated in fuel exporters and fallen only marginally in food and agricultural goods exporters (mainly among the African LDCs and Haiti). As a result, the movement away from agriculture has been much stronger in the Asian LDCs than in the African LDCs and Haiti.

Output per worker is higher in services than in agriculture, which explains why this intersectoral shift has increased overall productivity. However, labour productivity within the services sector has been virtually stagnant in LDCs

since the early 1990s. This is because most of the additional employment in services has been in low-productivity informal jobs taken by rural migrants to urban areas, who, failing to find jobs in industry, have been forced to resort to low-productivity informal jobs as a "refuge" activity. This makes a negligible contribution to structural transformation, as it represents the movement of labour into activities with low productivity (though somewhat higher than agriculture) and few prospects for future productivity growth.

Labour productivity within the services sector has been virtually stagnant in LDCs since the early 1990s.

Higher productivity within the agricultural sector has also contributed to the overall rise in productivity in LDCs as a whole, but it has grown at less than half the rate in the ODCs. It has also varied very widely among the different LDC groups, remaining largely stagnant in the African LDCs and Haiti overall, and declining in exporters of both food and agricultural goods and minerals.

Low-productivity informal jobs in the services sector make a negligible contribution to structural transformation.

Productivity in industry has also improved, largely because that sector's share of output has grown at the expense of agriculture and, to a lesser extent, services, while its share in employment has increased relatively little. This output growth has been driven mainly by the growth of extractive industries in fuel and mineral exporters, and of manufacturing output in exporters of manufactures. However, the extractive industries generally generate little employment and have limited linkages with the rest of the economy, therefore providing little, if any, benefit to most of the population. There was a steep decline in industrial labour productivity in fuel-exporting LDCs following the 2008–2009 global financial and economic crisis, though it continued to rise in exporters of manufactures. This demonstrates the vulnerability of countries dependent on extractive industries to international commodity cycles. These economies have also relied so heavily on increases in productivity within their extractive industries sectors, that they have experienced little economic transformation resulting from intersectoral shifts in labour.

Higher productivity within the agricultural sector has contributed to the overall rise in productivity in LDCs as a whole, although it has grown at less than half the rate in the ODCs.

The fastest-growing LDCs are those that have experienced both forms of productivity growth; that is, significant structural changes in employment shares between sectors as well as productivity growth within sectors. Labour movements between sectors have had the greatest impact on aggregate labour productivity growth in exporters of manufactures.

Productivity in industry has also improved, driven mainly by the growth of extractive industries in fuel and mineral exporters, and of manufacturing output in exporters of manufactures.

Overall growth rates closely reflect sectoral changes in employment: economic growth is negatively correlated with the share of agriculture in employment, but positively correlated with the shares of industry and services. The LDCs which have experienced the greatest structural transformation are also those that have made the greatest progress towards attaining the MDGs. Moreover, economic growth has been much more strongly correlated with MDG performance in countries with above-average structural transformation than those which have experienced less structural transformation. This is indicative of the importance of structural change in achieving human development goals.

Countries dependent on extractive industries have experienced little economic transformation resulting from intersectoral shifts in labour.

The LDCs which have experienced the greatest structural transformation are also those that have made the greatest progress towards attaining the MDGs.

Notes

1 In the present analysis, the group of island LDCs consists only of Comoros, Solomon Islands and Timor-Leste, due to the lack of data for the other island LDCs. In this reduced grouping, the economic performance of island LDCs has been driven almost exclusively by the extractive industries in Timor-Leste.

2 Exporters of manufactures are dominated by Asian LDCs, of which Bangladesh is the largest and most important economy.

3 The fuel exporters group in this analysis includes five LDCs, all of them African. Services exporters are a more diverse group, but most of them are African LDCs.

4 The definition of these broad sectors on based on ISIC Rev.3 (International Standard Industrial Classification of All Economic Activities, Revision 3) sections as follows: agriculture: A–B, industry: C–F, services: G–Q. These three broad sectors of economic activity are also often referred to as primary, secondary and tertiary, respectively, but this Report uses the terms "agriculture", "industry" and "services" for ease of reference.

5 Examining LDC groups by export specialization, the major change in the importance of the services sector during the period took place in services exporters, where the sector expanded by 9 percentage points, and in fuel exporters, where it shrank by the same proportion.

6 For a detailed discussion of the Divisia decomposition method, see Ang (2004) and Diewert (2010).

7 The terms-of-trade effect for the macro economy is relatively minor, since, by definition, changes in terms of trade across all sectors should be close to zero (Diewert, 2010).

8 This conclusion is consistent with findings in the economic development literature that highlight the linkages between per capita income growth and human development (e.g. Dollar and Kraay, 2002; Ravallion, 2001). Besley and Burgess (2003), for example, estimate an elasticity of poverty with respect to income per capita of around -0.73, with a (robust) standard error of 0.25. This confirms that increases in per capita income are associated with reductions in poverty, and implies that an annual growth rate of around 3.8 per cent, sustained for 25 years, would cut the poverty rate by half. More recent studies also document the effect of per capita income on other dimensions of human development (Sánchez and Vos, 2009).

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CHAPTER 5

STRUCTURAL TRANSFORMATION, LABOUR PRODUCTIVITY AND DEVELOPMENT POLICIES IN SELECTED NON-LDC DEVELOPING COUNTRIES






A. Introduction

Structural transformation requires policies that encourage investment in a variety of higher productivity sectors and activities, and in increasing the productivity of existing production, both of which involve different types of innovation.

To inform development policymaking in the least developed countries (LDCs) during the period covered by the planned Sustainable Development Goals (SDGs) (i.e. 2015–2030), it is useful to look beyond the LDCs themselves to some other economies that have undergone successful economic transformation in recent decades. Their transformation enabled those countries not only to perform well against the Millennium Development Goals (MDGs), but also to set in motion a lasting development process. This chapter considers what lessons may be drawn for LDCs from domestic policies adopted by four such countries: Chile, China, Mauritius and Viet Nam.

Besides their successful economic and social development, these countries were selected partly because they represent a wide range of conditions and circumstances in terms of such factors as size, location, politics, history and demographics. The range of their gross domestic product (GDP) per capita figures at the initial stages of their respective processes of economic reform is similar to that of LDCs in 2013. These countries are from three developing regions, range in population from 1.3 million in Mauritius to 1.4 billion in China, and have very different political, cultural and historical backgrounds and social structures. Their production structures also vary widely: while China has established itself as the manufacturing workshop of the world, Chile's economy remains strongly based on primary commodities, and Mauritius and Viet Nam have a mix of the two.

Three broad and interrelated areas of domestic policy are critical for sustaining the economic transformation process:

Above all, structural transformation requires policies that encourage investment in a variety of higher productivity sectors and activities, and in increasing the productivity of existing production, both of which involve different types of innovation. While there are innumerable instruments for this purpose, the four country cases highlight three broad and interrelated areas of domestic policy that are critical for sustaining the economic transformation process. The first of these is resource mobilization, by both the public and private sectors from domestic and foreign sources. This refers to instruments that seek to increase the resources needed for investment, including in economic and social infrastructure. It is also important to ensure that these resources are channelled into sectors and activities that will contribute to economic transformation. Financial and banking systems are crucial, not only for mobilizing resources but also for influencing their allocation.

(i) resource mobilization, which provides the resources needed for investment;

(ii) industrial and sectoral policies, which aim at changing the structure of the economy; and

The second policy area concerns industrial and sectoral policies, which aim at changing the structure of the economy. These encompass horizontal policies applied across all sectors (for example to address economy-wide market imperfections and externalities) and vertical policies applied only in selective sectors or activities, although there is a substantial degree of overlap and complementarity between the two.

(iii) macroeconomic policies, of particular importance to public investment, credit the real exchange rate and domestic demand.

Third, successful structural transformation requires appropriate macroeconomic policies. While such policies are typically seen as focusing on the short-term management of aggregate variables, they also have long-term impacts, which may be critical to successful structural transformation. Of particular importance are their effects on public investment, the availability and cost of credit and the real exchange rate, as well as their impacts on domestic demand.

This chapter is organized as follows. Section B discusses the extent to which the policy experiences of some countries can provide guidance to policymaking in others, and the potential for learning by example. Section C analyses the performance of selected non-LDC developing countries — Chile, China,

Mauritius and Viet Nam — in terms of structural transformation and labour productivity. This is followed by an analysis of the development policies enacted by Chile (section D), China (section E), Mauritius (Section F) and Viet Nam (Section G) in the three main policy areas outlined above. Section H summarizes and concludes.

B. Learning by example?

Every country is unique, and its particular circumstances and initial economic conditions have important implications for its development path.

Learning from the past development experiences of one set of countries to inform strategies in another clearly requires considerable caution. Any analysis of dynamic country experiences involves risks, and can be prone to reinterpretation over time (Page, 1994, 2011, 2014). Some academics have questioned the usefulness of such exercises in the light of weaknesses in government institutional capacities, changing external policies and economic environments, and/or historical misreading of the nature and processes of economic development (Weiss, 2011, 2005; Naudé, 2010a, 2010b; Naughton, 2010; Altenburg, 2011; Hobday, 2011; Milberg et al., 2014). The very term, "economic miracle", applied to conspicuous development success stories, implies that such cases can be neither explained nor replicated.

Unquestionably, every country is unique, and its particular geographical, historical, demographic and social circumstances have important implications for its development path, as do its initial economic conditions. Equally, the international economic environment has changed considerably over the past 30 years. The development of the multilateral trading system, for example, may mean that paths pursued by the four success cases examined here are no longer possible, although LDCs have greater flexibility in this regard than do other developing countries. And, as discussed in chapter 6 of this Report, the international context will undoubtedly change further in the decades to come, not least as a result of the post-2015 development agenda.

Policymakers in successful countries have often looked to the experiences of others.

Equally, however, it would be imprudent to assume that no conclusions can be drawn from successful cases, or "that there is no point in learning about their growth paths because the lessons cannot be applied at home" (Commission on Growth and Development, 2008: 20). Certainly, policymakers in successful countries have often looked to the experiences of others (Mahbubani, 2009; Virmani, 2006). For example, it has been argued that China and India — two of the most successful developing countries in recent history — owed their success precisely to their attentiveness to the limitations of the mature market economy model and its standard policy prescriptions, and sought to adapt it to their own unique conditions and circumstances (El-Erian and Spence, 2008).

Some indirect and context-specific policy lessons can be gleaned from successful cases.

Some indirect and context-specific policy lessons can indeed be gleaned from successful cases (Wade, 2010; Chang, 2012). The experiences of successful countries may be an important complement to imperfectly formulated economic theory, highlighting the role of key growth drivers and helping to identify relevant variables that could improve the analytical approach to assessing policy. Even some observers who rightly stress that no lessons can be directly learned, or models imitated, have acknowledged that "there may well be some subtle and useful insights from the Asian experience" (Hobday, 2011: 17).

The question is what kinds of lessons can and cannot be drawn, and how they can be applied in different contexts to positive effect. Evans (1998: 78–79) captures well the potential and the limitations of the process:

> If transfer were defined literally as the implantation of East Asian institutions in developing countries of other regions, then it would make

no sense. The concrete institutional forms associated with East Asian success vary substantially across individual countries for good reason. Achieving analytically similar results in different historical, cultural and political contexts requires adaptive 'reverse engineering'. Policies may be sometimes transferable in the mechanistic sense of replication, but institutions rarely are … Other countries will have to use East Asian models as creatively as East Asians used the models that their American advisors presented them with in the 1950s.

Developing appropriate development strategies within each country requires pragmatism, experimentation, capacity-building and a progressive refinement of strategies.

The lessons that can be learned relate primarily to what, broadly, needs to be achieved for successful structural transformation, and what general types of policies, institutional arrangements and instruments may contribute to that process. However, the particularities of such changes, and the appropriate means for undertaking them, must necessarily be based on the specific circumstances of each country.

Developing appropriate development strategies within each country requires pragmatism (i.e. a willingness to do what works in the local context), experimentation based on the lessons of past experiences, capacity-building and a progressive refinement of strategies in the light of experience as the process progresses. This is a well-trodden path taken by successful developing countries. Even China adopted such a process in achieving its "economic

Box 4. Chinese policy reforms: Learning by doing

When reforms started in China in the late 1970s, it was a low-income country, with a real per capita GDP similar to that of the poorest LDCs in 2013. The population was largely rural, and agriculture was the largest sector in terms of employment. Like most low-income countries, it had relatively abundant natural resources and unskilled labour, and a scarcity of human and physical capital; and it relied on exports of raw materials such as crude coal, crude oil, minerals and agricultural products to earn foreign exchange. Agriculture and processed agricultural products accounted for more than 60 per cent of its foreign exchange earnings (Lin and Wang, 2008; Lin et al., 1996; Perkins, 1988).

At the time, China's leaders had no detailed "blueprint" for reforms; only a general sense of policy direction (and where they did not want to go). They had an ingrained scepticism towards the kinds of economic theories and policies proposed by the more developed industrialized nations, which partly reflected ideological differences. They therefore tended to look for practical lessons from the international arena through case studies and their demonstration effects, and these remain important to their decision-making even today (Ravallion, 2009).

As El-Erian and Spence (2008: 8) observe,

> The fundamental fact that was recognized early on was that the models with which China was equipped to predict the effects of policy actions were very imperfect and partial, and hence the policy makers had to navigate higher subjective ex ante uncertainty about policy predictions than we are used to in advanced countries. The response was probably as expected. If the dynamic system you are trying to influence has uncertain characteristics and if you are pretty sure that it is changing over time (a kind of system-wide learning curve, with the object changing while you are learning), then you experiment, take small steps, learn and refine your understanding of the economy, and try to avoid high-risk moves and big mistakes.

China's policy experiments clearly provided its leaders with valuable knowledge about development processes. According to Rodrik (2009: 45),

> The China example is important because it illustrates, in a vastly significant real-world instance, how the experimental approach to policy reform need not remain limited in scope and can extend into the domain of national policies. China, of course, is a special case in many ways. The point is not that all countries can adopt the specific type of experimentation… that China has used to great effect. But the mindset exhibited by China's reform process is general and transferable — and it differs greatly from the mindset behind… presumptive strategies.

Equally, the idealized notion that East Asia's success was engineered by a set of impervious super-bureaucrats obfuscates the reality that "Economic change often happens not when vested interests are defeated, but when different strategies are used to pursue those interests" (Rodrik, 2013). It has been part of a gradual, decades-long process of building capable State institutions, requiring a willingness and commitment to invest both political and economic resources (Gilson and Milhaupt, 2011; El-Erian and Spence, 2008). While this process has certainly needed close cooperation, coordination and information exchange between government and business, relations have not always been based on a "bland, tension-free consensus" (Evans, 1998: 74).

miracle", experimenting, learning and adapting over time, rather than rigidly following a predetermined blueprint (box 4).

In making policy recommendations for LDCs (or any other large group of countries) collectively, it is also important to take into account their interdependence. LDCs are both trading partners and competitors for markets and inward investment. Consequently, there are both synergies and tensions between their development paths. Successful development by one LDC may benefit others — particularly neighbouring landlocked countries — and boost intraregional trade, but it may also undermine prospects for others, or limit the options available to them, especially in export markets. It may not be advisable for all LDCs to move simultaneously into the production and export of the same commodities or manufactures, since this could exert downward pressure on the international prices of these products.[1]

Rather than all LDCs pursuing an identical model of structural transformation, each needs to develop its own model based on its particular circumstances, assets and disadvantages.

This reinforces the need to avoid offering "one-size-fits-all" policy prescriptions. Rather than all LDCs pursuing an identical model of structural transformation, each needs to develop its own model based on its particular circumstances, assets and disadvantages. Thus, the quest for structural transformation should not involve a search for a blueprint. Rather, the objective should be to establish the means for each country to identify the best course available to it, and the instruments needed to pursue that course.

C. Structural transformation and labour productivity in selected countries

This section examines the performance of the selected non-LDC developing countries in terms of structural transformation, output and employment growth. Output per capita grew steadily in all these countries throughout the period 1991–2012. The performance of China and Viet Nam was particularly impressive, with average annual per capita GDP growth rates of more than 9 per cent in China and 5.5 per cent in Viet Nam, while growth rates in Chile and Mauritius averaged around 3.9 per cent and 3.5 per cent respectively.

In Chile, China, Mauritius and Viet Nam, there was a shift in employment towards the services sector, but only in China and Viet Nam did employment also move towards industry.

These variations in growth rates are closely associated with significant changes in the basic structures of the four economies. In all four of them, there was a shift in employment towards the services sector, but only in China and Viet Nam did employment also move towards industry (table 17). In China, the share of employment in agriculture fell from 60 per cent in 1991 to 33 per cent in 2012, while the shares of employment in industry and services reached 30 per cent and 37 per cent respectively. In Viet Nam, similarly, employment in agriculture fell by 29 percentage points over the two decades, from 76 per cent to 47

Table 17. Structural transformation in selected developing countries, 1991–2012

Country	Employment shares (Per cent)						Real value added shares (Per cent)						Annual labor productivity growth (Per cent)			Divisia decomposition index			Aggregate productivity change (Per cent)
	1991			2012			1991			2012			1991-2012			1991-2012			
	Agri-culture	Industry	Services	Agri-culture	Industry	Services	Agri-culture	Industry	Services	Agri-culture	Industry	Services	Agri-culture	Industry	Services	Direct	Re-allocation	Terms-of-trade	
Chile	19	26	54	10	24	66	4	43	54	4	34	62	11.3	1.9	2.3	52.8	4.8	-0.4	57.2
China	60	21	19	33	30	37	27	35	38	8	49	42	11.9	24.8	12.0	1041.0	222.8	889.7	2 153.4
Mauritius	15	42	43	8	28	65	11	31	58	5	24	71	3.8	7.0	3.4	97.7	13.6	1.6	112.9
Viet Nam	76	8	16	47	21	32	30	25	45	16	38	46	6.6	3.0	2.0	94.7	75.4	9.6	179.7

Source: UNCTAD secretariat calculations based on data from UN/DESA, Statistics Division, *National Accounts Main Aggregates Database* for national accounts data (accessed June 2014); ILO, *Global Employment Trends 2014* database for employment data (accessed June 2014).

per cent. Even in Chile and Mauritius, despite their more diversified production structures initially, the share of employment in agriculture was halved, but in their case, the shift in employment was exclusively towards the services sector, while the share of employment in industry remained relatively constant. All four economies experienced a rapid rate of transformation, the performance of the two Asian economies being the more impressive as they started from productive structures markedly skewed towards the agricultural sector.

In China and Viet Nam, the share of industry in total output grew dramatically, primarily at the expense of agriculture.

The sectoral composition of output has followed a similar pattern (table 17). In China and Viet Nam, the share of industry in total output grew dramatically, primarily at the expense of agriculture, while Chile and Mauritius saw major increases in the share of the services sector.

The other key component of successful structural transformation is growth in labour productivity. In this respect, China has overshadowed the other three economies, recording double-digit average annual growth rates of labour productivity in all three major economic sectors. The performance of industry has been particularly impressive, with labour productivity growing by 24.8 per cent per year during the period 1991–2012. Except for agriculture in Chile, none of the other three countries experienced double-digit growth in any sector. The greatest improvements in labour productivity in Mauritius and Viet Nam were in the services and agricultural sector respectively.

In China and Viet Nam, changes in labour productivity within and between sectors have occurred together.

Applying the methodology used in chapter 4 of this Report (the first Divisia index decomposition), overall productivity growth in the four countries can be decomposed into three main components: labour movements between sectors, increases in productivity within sectors, and the effects of variations in relative prices. In China and Viet Nam, changes within and between sectors have occurred together, movement between sectors contributing 75 percentage points to the expansion of aggregate productivity in Viet Nam and more than 200 percentage points in China (table 17). Conversely, the experience of Chile and Mauritius has been characterized by a much less balanced process of productivity increase, the contributions from reallocation effects being only 4.8 percentage points and 13.6 percentage points respectively.

The experience of Chile and Mauritius has been characterized by a much less balanced process of productivity increase.

These findings reinforce the overall message of this Report regarding the importance of structural transformation. Even comparing highly successful economies, the Report finds that better economic performance is associated with more balanced contributions from increasing productivity within sectors and resource shifts between sectors. Success in transforming the structure of the economy is also reflected in the relative performance of the four countries against the MDG targets. While China and Viet Nam are on track to achieve by 2015 all the seven MDG targets analysed in this Report, Chile and especially

Table 18. Progress of selected developing countries towards achieving the MDGs

Country	Population below $1 (PPP) per day (Per cent)	Population undernourished (Per cent)	Children under five mortality rate per 1,000 live births	Maternal mortality ratio per 100,000 live births	Proportion of the population without improved drinking water sources (Per cent)	Proportion of the population without improved sanitation facilities (Per cent)
Chile	On track or achieved	On track or achieved	Medium progress	On track or achieved	On track or achieved	On track or achieved
China	On track or achieved	On track or achieved	On track or achieved	On track or achieved	On track or achieved	On track or achieved
Mauritius	-	Medium progress	Medium progress	Stagnation or reversal progress	On track or achieved	Low progress
Viet Nam	On track or achieved	On track or achieved	On track or achieved	On track or achieved	On track or achieved	On track or achieved

Source: UNCTAD secretariat calculations based on data from UN/DESA, Statistics Division, *Millennium Indicators Database* for MDG data (http://mdgs.un.org/unsd/mdg/Default.aspx, accessed September 2014), except for the poverty indicators, which are taken from World Bank, *PovCalNet* (http://iresearch.worldbank.org/PovcalNet/index.htm, accessed September 2014).

Mauritius are set to achieve only medium or slow progress on one or more targets (table 18). This again highlights the importance of the virtuous circle connecting structural transformation, economic growth and human development.

The following sections analyse the main policy orientations of the selected countries aimed at achieving their development goals.

D. Chile

While Chile is often cited as a model with respect to its adoption of market principles, the reality reflects a more pragmatic and flexible approach to market reforms.

While Chile is often cited as a model with respect to its adoption of market principles, the reality reflects a more pragmatic and flexible approach to market reforms. The sudden shift of economic policy in the 1970s, characterized by import liberalization and deregulation of the domestic financial market, was followed by a return to a more pragmatic policy stance in response to the 1982 crisis. Since then, Chile has achieved greater coherence between resource mobilization and industrial and macroeconomic policy, particularly in the 1990s. It has aimed at progressively diversifying its economy from mainly copper production to other parts of the mining value chain and at increasing the value added in natural-resource-based sectors, although there remain concerns about the scope and dynamism of its export sector (OECD, 2003, 2007).

1. Resource mobilization and financing

Chile's financial reforms began with the deregulation of the domestic financial market in terms of removing entry barriers, interest rate controls and lending policies.

In the early 1970s, Chile began implementing far-reaching financial liberalization, which culminated in effectively removing capital controls in 2001. At the same time, however, Chile also undertook extensive public investment in strategic economic sectors, creating special programmes in 1991 to fund collaboration between local firms and research organizations in order to catalyse learning and innovation within domestic industry.

Chile's financial reforms began with the deregulation of the domestic financial market in terms of removing entry barriers, interest rate controls and lending policies. In addition, a major privatization of public banks reduced State ownership of banks from more than 90 per cent before 1973 to less than 15 per cent in the early 2000s. However, BancoEstado, a State-owned commercial bank, remains a key player in Chile's financial sector, providing an array of financial services to small and medium-sized enterprises (SMEs) and small savers. Financial reforms gained renewed momentum in the 1990s, with the progressive relaxation of restrictions (removed altogether by 2001) that had prevented institutional investors[2] from holding international assets, and the easing of capital controls on portfolio inflows.

Several agencies took an active role in supporting the development of productive technologies and technology transfer.

These reforms were accompanied by a continuous growth of the Chilean financial market. By 1997, the financial assets of the banking sector were equivalent to just over half of GDP (55.1 per cent), while stock market capitalization that year was 100 per cent of GDP (Gallego and Loayza, 2000; Cifuentes et al., 2002).

Several agencies took an active role in supporting the development of productive technologies and technology transfer. The National Productivity and Technological Development Fund (FONTEC) and the Science and Technology Development Fund (FONDEF) were created in the early 1990s with funding from the Inter-American Development Bank. FONTEC was managed by the Chilean Economic Development Agency (CORFO), and later merged with CORFO's Innovation Development Fund in 2005 to create InnovaChile. FONDEF was managed by the Chilean National Research Council (CONICYT) under

the Ministry of Education. Together, these institutions directly stimulated the demand for and supply of technological learning, particularly through private research and development (R&D) activities that would not otherwise be able to take place, and R&D activities by entities jointly owned by universities and producers' associations. They also supported producers' associations in project design, implementation and monitoring.

Even today, copper mining remains a major component of the Chilean economy.

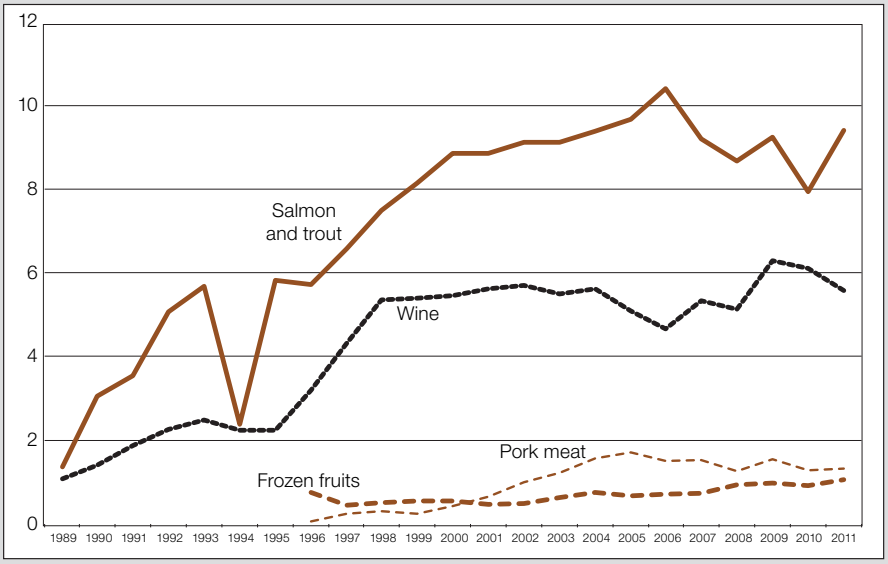
In 2006, recognizing the need for a long-term public innovation strategy, the Government created a National Innovation Council for Competitiveness to establish national guidelines and select specific industrial clusters for support. Funding will be boosted significantly by a new 3 per cent surcharge on profits from mining,[3] the proceeds of which are "unofficially earmarked" for an Innovation for Competitiveness Fund (ICF), to be managed by the Council (Varas, 2012; Agosin et al., 2010).

2. Economic diversification and industrial policy

The policy instruments and institutions, and the extent of incentives that sustained diversification, differed among industries according to their initial conditions.

Chile is a leading producer of copper, accounting for 35 per cent of world copper production and 31 per cent of global reserves. Copper constituted almost 90 per cent of Chile's merchandise exports in the early 1970s, and even today copper mining remains a major component of the Chilean economy. However, Chile has managed to gradually diversify its economic structure, reducing its reliance on copper. The mining sector accounted for an annual average of 14.8 per cent of GDP at current prices in the period 2003–2012, and copper mining for 13.6 per cent. Some non-traditional exports have increased faster than those of copper, particularly salmon, trout and wine, which grew rapidly through most of the 1990s, before appearing to lose steam during the subsequent decade. Other exports such as pork and frozen fruit have also grown rapidly, though from a much lower base (chart 34). In services, rapid growth in engineering services

Chart 34. Chile: Trends of exports of selected products, 1989–2011
(Per cent of non-mining exporters)



Source: UNCTAD secretariat, based on data from Central Bank of Chile, *Statistical Database* (accessed June 2014).

has resulted in their becoming Chile's leading service export (Fernandez-Stark et al., 2010).

The government policy instruments and institutions, and the degree of incentives that sustained this diversification, differed among industries according to their initial conditions. From the 1980s until the early to mid-2000s, Chile's industrial policy tended to give priority to "horizontal" (or "functional") policies aimed at tackling specific market failures across sectors so as to build on existing comparative advantages. Examples of horizontal policies included quality, safety and other regulatory standards, infrastructure provision, export promotion, R&D subsidies, financing for SMEs and start-ups, and training. A good illustration of Chile's horizontal approach was its use of the reintegro simplificado (until 2003), i.e. a 10 per cent tax rebate to subsidize new exports, which was automatically phased out as exports increased beyond a certain threshold (Ffrench-Davis, 2010).

From the 1980s until the early to mid-2000s, Chile's industrial policy tended to give priority to "horizontal" (or "functional") policies.

"Vertical" policies, involving strategic interventions and investments in selective sectors or firms, were also used, notably in the salmon industry. Fundación Chile, a semi-public institution, was pivotal in setting up an aquaculture programme in the 1980s, including the creation of firms (later privatized) to import and adapt technologies and undertake research. It demonstrated the commercial feasibility of large-scale salmon farming, breeding and production, and established salmon-farming centres. Other important adaptations of foreign technologies were financed by public agencies such as FONTEC (UNCTAD, 2006; Agosin, 1999).

By the mid-2000s, the emphasis had shifted more towards "vertical" policies.

By the mid-2000s, the emphasis had shifted more towards vertical policies. White papers produced by the National Innovation Council for Competitiveness in 2007 and 2008 highlighted strategic activities (copper mining, aquaculture, fruit production, beef, pork, and poultry, offshore services, tourism and processed foods) and cross-cutting sectors (financial services, transport and logistics, and construction). This policy approach combines the provision of sector-specific public goods with the strengthening of economy-wide factors such as infrastructure, training and finance, so as to "reduce, without entirely eliminating, the risk of placing bets on particular sectors" (Agosin et al., 2010: 14–15).

Capital controls were introduced in the early 1990s to avoid an overreliance on volatile short-term borrowing, while keeping the economy open to FDI.

Another important contribution to Chile's export diversification has been the role played by the Government in negotiating bilateral and regional free trade agreements (FTAs) with major importers of Chile's goods and services.

3. Macroeconomic policies

The coherence of macroeconomic policies with the overall development strategy, particularly in the 1990s, was also crucial. Following its banking sector reforms, and with historically high domestic interest rates, Chile was one of the first countries in the Latin American region to attract renewed capital flows in the early 1990s, and on a scale disproportionate to its small economic size. In response to this surge, capital controls were introduced to avoid an overreliance on volatile short-term borrowing, while keeping the economy open to foreign direct investment (FDI). The authorities also intervened in foreign exchange markets to limit real exchange rate appreciation, while sterilizing the effects of foreign exchange reserve accumulation on the money supply through the issuance of government bonds.

The primary instrument used to manage capital inflows was modulation of a price-based regulation known as the encaje (lock-in).

The primary instrument used to manage capital inflows was modulation of a price-based regulation known as the *encaje* (lock-in), an unremunerated reserve requirement (URR) that effectively raised the cost for specific short-term foreign

currency liabilities. Though generally not considered as effective as quantity-based controls, such mechanisms have the advantage of being simple, non-discretionary and price-based (Stiglitz and Ocampo, 2008). Chart 35 shows the effects on the composition of net private capital flows of the two major episodes of URR implementation, in 1991 and 1995 (highlighted by the vertical lines). Capital controls appear to have had a significant if short-lived effect, particularly on the overall volume of capital flows. The effect of URR strengthening in 1992 was largely dissipated by 1994, and that of the 1995 adjustments lasted only a year. Despite essentially completing capital account liberalization in 2001, Chile retains discretion to reintroduce the URR should this be considered necessary.

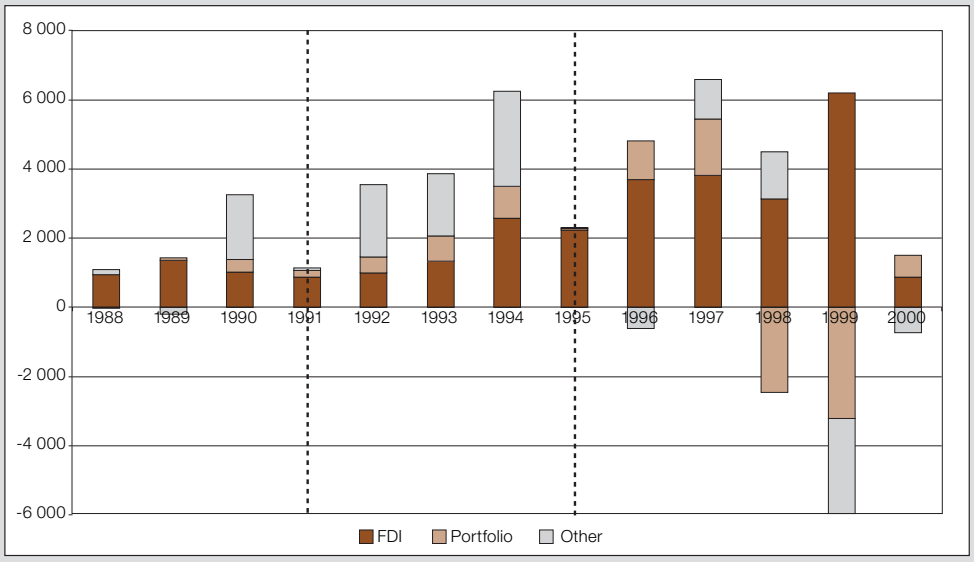
The operation of a copper stabilization fund established during the 1980s facilitated the management of capital inflows and aggregate demand.

Other administrative regulations on capital flows were also important as part of an overall package, including rules on the issuance of certain financial instruments, subjecting them to minimum amounts and minimum credit ratings, and requiring direct approval by the central bank. The fiscal stance was cautious, with the public sector deficit averaging an annual 2 per cent of GDP from 1990 to 1997. Combined with the operation of a copper stabilization fund established during the 1980s (replaced by the Economic and Social Stabilization Fund (ESSF) in 2007), this facilitated the management of capital inflows and aggregate demand (Ocampo and Palma, 2008; Ffrench-Davis, 2010). The ESSF played a key role in financing both a stimulus package, following the 2008 financial crisis, and an earthquake recovery plan in 2010 (Varas, 2012).

The 1992 move to a "dirty" floating exchange rate system also contributed to countercyclical macroeconomic policies.

Changes in the exchange rate policy also contributed to countercyclical macroeconomic policies, notably the 1992 move to a "dirty" floating exchange rate system (i.e. a regulated float within a predetermined range). This made dollar-peso interest rate arbitrage less profitable by introducing greater short-

Chart 35. Chile: Composition of net private capital flows, 1998–2000
(Millions of dollars)



Source: UNCTAD secretariat, based on data from Central Bank of Chile, *Statistical Database* (accessed June 2014).
Note: Other capital inflows include: public/government, private non-banking, and private banking capital flows.
The lines represent the two major episodes of implementation of unremunerated reserve requirements.

term exchange rate uncertainty, while also providing greater overall stability to the peso value of proceeds from exports.

This policy approach was designed to protect a development strategy that focused on export growth and diversification, but its effectiveness was undermined by a failure to strengthen the policy stance in response to a renewed surge in capital inflows in the late 1990s. With capital controls largely removed by 2001, the ability to re-impose the URR mechanism was a major sticking point during the Chile-US FTA negotiations. Ultimately, a compromise was made, called the "cooling off" provision, whereby the United States cannot file a claim against violation of investment provisions until after a period of one year from the date the measure was implemented (Gallagher, 2010).

China has had an average annual per capita GDP growth of 9.5 per cent over the past quarter century, resulting in an increase in per capita income by a factor of seven.

E. China

China has enjoyed a spectacular economic rise over the past quarter century: its average annual per capita GDP growth of 9.5 per cent resulted in an increase in per capita income by a factor of seven, and raised China's status from a low-income to an upper-middle-income economy. This has been achieved by a gradual and strategic approach to economic reform involving three dimensions of economic transformation: from a centrally planned to an emerging market economy; from an agrarian to an industrial economy; and from a closed to an open economy.

China adopted various dual-track industrialization strategies.

Recognizing the absence of market-supporting institutions, policymakers adopted a cautious approach, while gradually establishing the necessary institutions for longer term economic reform (Gilson and Milhaupt, 2011; El-Erian and Spence, 2008) and experimenting with institutional arrangements to address constraints. As Ravallion (2008: 23–4) observes, "it has no doubt helped that China did not make the mistake of believing that freer markets called for weakening [State] institutions". It adopted various dual-track industrialization strategies, such as combining support for import-substitution in selected sectors with export-processing activities considered "new" to the domestic economy (McMillan and Rodrik, 2011). It thus blended an East Asian model of national enterprise-led growth with a South-East Asian model of global value-chain-led growth primarily orchestrated by multinational corporations (Hobday, 2011: 6).

China blended an East Asian model of national enterprise-led growth with a South-East Asian model of global value-chain-led growth primarily orchestrated by multinational corporations.

The discussion below focuses mainly on the early stages of reform, from the late 1970s to the 2000s, to highlight the dual-track institutional innovation that formed the basis of China's sustained economic transformation.

1. Resource mobilization

China's strategy for resource mobilization has been characterized by a gradual shift towards market-oriented allocation of credit and strong government guidance of FDI. A series of economic reforms during the 1980s and 1990s (see below) led to further increases in national savings that supported rising levels of capital formation, although both savings and investment levels were already relatively high by the 1980s (Ma and Yi, 2010; Hofman and Wu, 2009). While household savings ratios declined in the 2000s, this was offset by an increase in enterprise savings (retained profits), which rose to equal household savings after 2000 (Kuijs, 2005). Over the course of the reform period, gross fixed capital formation grew progressively from an average of 30 per cent of GDP in the 1980s to nearly 50 per cent in 2008 (Yu, 2010; Lardy, 2006). As in other centrally

China's strategy for resource mobilization has been characterized by a gradual shift towards market-oriented allocation of credit and strong government guidance of FDI.

planned economies, savers had little option but to deposit funds in State-owned banks (a situation referred to as "financial restraint"). Through much of the reform period, this and the retained profits of State-owned enterprises (SOEs) were the primary means of resource mobilization.

Rising household savings rapidly increased the volume of funds available in the financial system and allowed experimentation in establishing basic financial markets.

The critical factor in credit allocation was a reform of the banking system that sought to move gradually from a mono-banking system towards a two-tier system, while taking measured steps to improve the commercial operations of State-owned commercial banks (SOCBs). The People's Bank of China (PBoC) became the central bank and focused on monetary policy (i.e. currency issuance and inflation) and regulation and supervision of commercial banks, while four SOCBs took over the central bank's commercial banking role to support different sectors.[4] Rising household savings rapidly increased the volume of funds available in the financial system and allowed experimentation in establishing basic financial markets such as an interbank money market, foreign exchange markets, bond markets and stock markets (Okazaki, 2007). Even today, however, China's financial system activities consist predominantly of domestic bank lending (DRC and World Bank, 2013).

The China Development Bank financed large-scale infrastructure and industrial projects by providing long-term loans.

By 1993, further reforms created three policy banks,[5] improved the commercial orientation of SOCBs and reformed foreign exchange controls (among other measures). In addition, the SOCBs' autonomy over lending decisions was increased with the abolition of the credit plan[6] in January 1998, while requirements for the management of the banks' balance sheets were strengthened. Nonetheless, the PBoC continued to determine the total credit that the SOCBs could extend and to influence their loan portfolio management through "window guidance". Window guidance is mainly a form of persuasion through oral or indirect pressure, but in practice, it is believed that it also includes lending-volume guidelines (Okazaki, 2007). The PBoC was not given independence from the State Council (China's cabinet), and this remains true today.

While China's successful mobilization of FDI inflows also played an important role in its economic development and its export success, its approach to liberalization of FDI was gradual and prudent.

By the late 1990s, SOCBs' non-performing loans (NPLs) were estimated at 40 per cent of outstanding loans, and the banking sector was recapitalized using four asset management companies (AMCs) that purchased NPLs from SOCBs at face value (Ma and Fung, 2002). Following these measures, China's three policy banks became increasingly prominent as providers of long-term investment financing. The China Development Bank, in particular, financed large-scale infrastructure and industrial projects by providing long-term loans and lines of credit, and was a major source of financing of large strategic projects (Martin, 2012; CDB, 1999).

While China's successful mobilization of FDI inflows also played an important role in its economic development and its export success, its approach to liberalization of FDI was gradual and prudent. The first steps were taken in 1986, with an experimental opening up to FDI in selected coastal cities, special economic zones (SEZs) and industrial parks, focusing on export-oriented manufacturing.[7] FDI inflows at this time remained relatively limited and came mainly from investors in Hong Kong[8] and Taiwan Province of China. It was only from the 1990s that FDI began to surge, as a wider range of investors were attracted to China as a low-cost assembly platform, initially for light manufactures. Later, investment extended into electronics, machinery and telecommunications products, though generally with limited local value-added (Koopman et al., 2010). Since 2000, about 20 per cent of all FDI to developing countries has gone to China, though FDI inflows represented only 1.7 per cent of the Chinese GDP on average in 2009–2013.

China's approach to liberalization has sought to synchronize it with the development of its institutional capacity.

More recently, while China has been quite open to FDI in many manufacturing and most service industries (World Bank, 2010), it has adopted a gradual

approach to liberalization, seeking to synchronize this with the development of its institutional capacity. By the mid-1990s, FDI "guidelines" categorized sectors as "encouraged", "restricted" and "prohibited". They were revised over time with more demanding technical thresholds to reflect improvements in domestic production capacities (UNCTAD, 2014). They remain in effect nowadays.

China adopted a gradual and strategic "micro-first" and "dual-track" approach to economic reforms.

2. Rural development, economic diversification and industrial policy

In contrast to European transition economies, China adopted a gradual and strategic "micro-first" and "dual-track" approach to economic reforms. The initial phase in 1978–1984 focused on price and institutional reforms aimed at enhancing productivity, while the second phase, from 1985 onwards, consisted of gradual market liberalization and integration into the global economy.

In the first phase, China took measures to improve micro-level incentives by granting partial managerial autonomy and profit-sharing to economic agents such as households and SOEs. These changes started in the agricultural sector, where collective farming was replaced by the household responsibility system (HRS).[9] Land remained collectively owned, but was subdivided into tracts contracted to individual households, who exercised control and income rights. By the end of 1983, 98 per cent of agricultural collectives had adopted this system, resulting in a dramatic increase in agricultural productivity.

China's "dual-track" approach entailed smoothing the transition towards a market economy by gradually developing a free market system alongside the existing planned economy.

China's "dual-track" approach entailed smoothing the transition towards a market economy by gradually developing a free market system alongside the existing planned economy. Prior to 1978, the Government set both prices and quantitative targets in most sectors according to a central plan. While State controls were maintained in key sectors of the economy, private enterprises were allowed to participate in markets at the margin. The "dual-track" system, introduced in 1980, allowed enterprises to sell surplus output at market prices (market track) once they had fulfilled their planned production quotas and sold them at State-set prices (planned track).

The agricultural sector diversified from a "grains-first" production structure to include ever-increasing proportions of higher value crops.

This process of liberalizing prices at the margin to provide market incentives, while maintaining State-established prices and quotas to stabilize production, has been described as a political mechanism for reform "without creating losers". While the market track provided the incentives for economic actors to benefit from an increase in their productivity (provided they fulfilled their obligations to the plan), the planned track provided implicit transfers to compensate economic actors who might otherwise lose from liberalization by maintaining existing rents and subsidies.

Agricultural diversification was accompanied by very rapid industrial development in rural areas that continued into the 1990s.

Following the introduction of these reforms, the growth rate of agricultural GDP accelerated sharply, from an average annual rate of 2.7 per cent during the period 1970–1978 to 7.1 per cent in 1978–1984, with a similar pattern across all agricultural subsectors. The agricultural sector diversified from a "grains-first" production structure to include ever-increasing proportions of higher value crops, horticultural produce, livestock and aquaculture. This was accompanied by very rapid industrial development in rural areas that continued into the 1990s. The share of rural industrial enterprises in total industrial production increased fourfold between 1978 and 1993, from 9 per cent to 36 per cent, largely through township and village enterprises (TVEs) (Jin and Qian, 1998: 777). While the State-owned Agricultural Bank of China and the Agricultural Development Bank of China provided some financing at the national level, local governments played a pivotal role in arranging investment financing through rural credit cooperatives, and rural cooperative funds at the local level.

The second phase of reforms, from 1985 onwards, involved progressive market liberalization.

The second phase of reforms, from 1985 onwards, involved progressive market liberalization, including the liberalization of prices of selected commodities as their production responded to market incentives, allowing the plan to be phased out. Thus, procurement programmes and quotas were replaced by a combination of contract and market purchases, apart from a few products deemed important for national welfare.[10]

The broad-based success of the agricultural reforms led to a similar approach to industrial sector reforms in the mid-1980s.

The broad-based success of the agricultural reforms led to a similar approach to industrial sector reforms in the mid-1980s. Those reforms included changing the incentive structure for individual firms, while improving the overall market environment in which they operated. As with the household responsibility system in agriculture, a contract responsibility system was established between enterprises and the State: enterprises agreed on levels of profits and taxes to give to the State, and in return were given extensive autonomy to finance investment from retained earnings, bank loans and other sources (e.g. joint ventures, stock market issuance and bonds). By the late 1980s, more than two fifths of SOE investments in fixed assets were financed from retained earnings rather than through government grants. Similarly, markets for industrial inputs and outputs were gradually created, so that by 1989 roughly two thirds of SOE output was channelled through markets rather than bureaucratic decisions (Nolan and Wang, 1999; Perkins, 1988).

By the 2000s, China concentrated state ownership in strategic and "pillar" sectors deemed crucial to national development.

By the 2000s, China concentrated state ownership in strategic and "pillar" sectors deemed crucial to national development: in upstream natural monopoly sectors, but also in competitive downstream manufacturing and service sectors. Foreign investment in these sectors is subject to, for example, foreign ownership limits (and joint ventures), technology transfer and local content requirements, and R&D expenditure targets. These measures culminated in the establishment of the State-owned Assets Supervision and Administration Commission of the State Council (SASAC) in 2003. SASAC was created to institutionalize the management and oversight of SOEs on behalf of the State, initially covering 196 firms (Szamosszegi and Kyle, 2011; Lin and Milhaupt, 2013).

The restrictive approach to exchange rate policy and capital account opening reflected the twin objectives of maintaining domestic macroeconomic stability and rapid growth while exposing the economy to trade and capital flows.

3. Macroeconomic policies

Underlying China's industrial and financial reforms was a coherent macroeconomic framework. This policy framework was unorthodox, particularly in terms of exchange rate, capital controls and degrees of monetary independence, which were key to China's overall development strategy. The restrictive approach to exchange rate policy and capital account opening reflected the twin objectives of maintaining domestic macroeconomic stability and rapid growth while exposing the economy to trade and capital flows.

Very large foreign exchange reserves proved pivotal in maintaining resilience during bouts of economic crisis and at key junctures of the reform process.

China adopted a managed exchange system in order to maintain a competitive and stable exchange rate,[11] allowing a substantial accumulation of foreign exchange reserves drawn from twin surpluses in trade and FDI inflows from the 1990s to the mid-2000s.[12] A fixed exchange rate coupled with a high mandatory surrender requirement on export proceeds — set at 85 per cent in the late 1990s and only gradually reduced — were pivotal to China's rapid foreign exchange reserve accumulation.[13] Very large foreign exchange reserves proved pivotal in maintaining resilience during bouts of economic crisis and at key junctures of the reform process, such as a banking bailout in the late 1990s.

This reserve accumulation has direct implications for monetary policy. To keep the exchange rate stable, the People's Bank of China plays a more proactive role in foreign exchange markets, purchasing foreign currency with local currency while sterilizing the effects on liquidity. Sterilization is generally

performed through open-market operations (selling government bonds or other local currency assets owned by the central bank), or less conventionally through adjustments to reserve-requirement ratios,[14] administered deposits and minimum lending rates, and the use of quantitative measures such as lending quotas, "window guidance" and administrative restrictions on investment. These latter measures were particularly useful in providing China with degrees of freedom in keeping short-term real interest rates low (Ma and McCauley, 2007).

The evolution of China's capital control regime exhibits two important features: an "FDI-first" orientation that favours FDI inflows, which are considered more stable, over portfolio inflows, which are perceived as more volatile; and a progressive shift from a regime biased against outflows, towards a more balanced approach (Ma and McCauley, 2007; PBoC, 2008). The general prohibition on foreign investors' buying equity in stock exchanges inside China in the 1990s, for example, gave way in 2003 to the qualified foreign institutional investors (QFII) scheme which granted limited investment quotas to approved foreign investors. QFII is seen as an intermediate arrangement that allows foreign capital to access Chinese stock markets without a complete removal of controls or renminbi convertibility (Yu, 2008; Ni, 2009).

The evolution of China's capital control regime exhibits two important features: an "FDI-first" orientation that favours FDI inflows, and a progressive shift from a regime biased against outflows, towards a more balanced approach.

F. Mauritius

Mauritius is another example of gradual and unorthodox economic opening based on a two-track strategy which keeps one part of the economy highly open and the other quite closed (Rodrik, 1998). As a small island economy, Mauritius' establishment of an export processing zone (EPZ) in 1970 and its openness to trade are regarded as key factors underpinning its economic performance (UNECA, 2014; Sachs and Warner, 1995, 1997). However, while trade has undoubtedly played a critical role, Mauritius has by no means adopted a laissez-faire approach to development and structural transformation (Collier and Venables, 2007; Frankel, 2010).

Mauritius is another example of gradual and unorthodox economic opening based on a two-track strategy which keeps one part of the economy highly open and the other quite closed.

1. Resource mobilization

The Mauritian Government and public agencies have played a key role in mobilizing resources for structural transformation and diversification. Throughout the 1980s, the authorities maintained strong controls over a financial system that consisted almost exclusively of commercial banks. Measures included ceilings on loan volumes, reserve requirements, and controls on deposit interest rates and lending rates to priority and non-priority sectors. While the role of non-bank financial institutions has expanded significantly with the removal of controls over the course of the 1990s, they mainly provide mortgage financing and purchase government securities; very few of them provide long-term financing to productive sectors (Bundoo and Dabee, 1999). The banking and financial systems remain highly concentrated, with two private commercial banks accounting for 60 per cent of total banking assets.

The Mauritian Government and public agencies have played a key role in mobilizing resources for structural transformation and diversification.

The Development Bank of Mauritius (DBM) was established in 1964 as an institutional source of long-term lending. It supported Government policy through subsidized credit, contributing significantly to the credit and start-up capital used to diversify the economy from its historical dependence on sugar. By the early 1980s, the DBM is estimated to have provided a quarter of the financing for investment in industry, while other institutions such as the State Finance Corporation provided financing for the sugar industry (Zafar, 2011; World Bank, 1982). Following the 2008–2009 crisis, the DBM was transformed

The Development Bank of Mauritius was established in 1964 as an institutional source of long-term lending.

into a micro-, small- and medium-sized enterprise bank, reflecting a shift in the Government's priorities (OECD, 2014).

On the one hand, foreign and domestic private investment in manufacturing and tourism were encouraged through the provision of physical infrastructure, fiscal and financial incentives, and credit facilities.

2. Industrial policy and economic diversification

Until the adoption of a policy of import substitution to spur export diversification in the mid-1960s, the primary industrial activity in Mauritius was sugar milling. On the one hand, foreign and domestic private investment in manufacturing and tourism were encouraged through the provision of physical infrastructure, fiscal and financial incentives, and credit facilities offered mainly by the DBM. On the other hand, a high level of protection was maintained, particularly for infant industries. To this end, the Government introduced the Development Certificate Scheme (DCS) in 1964, offering 5–8-year exemptions from corporate income tax and exemptions from duties on imported capital goods.

On the other hand, a high level of protection was maintained, particularly for infant industries.

In 1970, the emphasis shifted to promoting export-oriented manufacturing with the introduction of an Export Processing Zone Act. This Act provided an array of incentives, including exemption from import duties on capital goods and raw materials, corporate tax holidays and unrestricted repatriation of profits. Initially, in the 1980s, EPZ wages were 36–40 per cent lower than those in the rest of the economy, reflecting the de facto gender-based segmentation of the labour market between a predominantly female workforce in the EPZs and a predominantly male workforce in the remainder of the economy. However, the differential fell progressively to 7–20 per cent in the 1990s. EPZ firms were also allowed greater flexibility in dismissing workers, and rules related to overtime work were more relaxed. According to Rodrik (1998: 28), this segmentation of the labour market was crucial "as it prevented the expansion of the EPZ from driving wages up in the rest of the economy, and thereby disadvantaging import-substituting industries. New profit opportunities were created at the margin, while leaving old opportunities undisturbed".

In 1970, the emphasis shifted to promoting export-oriented manufacturing with the introduction of an Export Processing Zone Act.

Today, garments and textiles account for about two thirds of exports, the remainder being mostly resource-based products (refined sugar, fish-based preparations, and diamonds and jewellery), tourism, services relating to information and communications technologies (ICTs), and offshore banking. This is very similar to the export composition of the mid-1990s, reflecting the slow evolution of the manufacturing sector. While tradable services have been diversified somewhat with the further development of the financial system, the ICT-related services emerging in the past decade mainly comprise call centres that pay low wages (Yusuf, 2012; Zafar, 2011; United States State Department, 2013).

Today, garments and textiles account for about two thirds of exports, the remainder being mostly resource-based products, tourism, ICT services and offshore banking.

Despite its strong emphasis on the export sector, Mauritius remained a highly protected economy until the 1990s: overall tariffs were high and there was wide tariff dispersion across product categories. While the level of protection fell over time, this pattern persisted, with average tariff rates in 1994 of 30.1 per cent in manufacturing, 17.7 per cent in agriculture and 14.1 per cent in mining. Rates exceeded 50 per cent for clothing, furniture, footwear and rubber products, and were above 40 per cent for electronics and plastics (Lall and Wignaraja, 1998). Even in 1998, based on a classification scheme for trade policy restrictions developed by the International Monetary Fund (IMF), Mauritius rated 7, with 10 representing the highest level of restrictions (Subramanian and Roy, 2001).

Despite its strong emphasis on the export sector, Mauritius remained a highly protected economy until the 1990s.

This unorthodox opening process was underpinned by preferential market access for exports of sugar, and garments and textiles, which represented the bulk of Mauritian exports, ensuring the profitability of these sectors, particularly in the 1980s and 1990s. The Sugar Protocol of the 1975 Lomé Convention

granted Mauritius a large quota relative to its size for access to the European Economic Community market, and at a guaranteed price that exceeded the world market price by an average of 90 per cent between 1977 and 2000. In textiles and clothing, foreign investors re-located to Mauritius to utilize the country's quota regime under the Multi-Fibre Arrangement (MFA) on textiles and clothing. These investors were mainly from Hong Kong, which had already filled its MFA quota. Rents accruing to Mauritius from these preferential trade arrangements were estimated to be about 7 per cent of GDP in the 1980s and 4.5 per cent of GDP in the 1990s. These rents in turn were critical in sustaining high levels of domestic investment (Subramanian and Roy, 2001).

The coherence of Mauritius' macroeconomic framework with its industrial and diversification policies was important to its success.

3. Macroeconomic policies

As in the other countries discussed in this chapter, the coherence of Mauritius' macroeconomic framework with its industrial and diversification policies was important to its success. The Bank of Mauritius is not fully independent of the Government and is mandated to first ensure the competitiveness of the country's export sectors, and second, to maintain price stability. Monetary policy is based on multiple indicators, including interest rate and inflation differentials, growth rates, and exchange rates against major trading partners, referred by the IMF as "hybrid inflation targeting" (Bank of Mauritius, 2014; Zafar, 2011; Bundoo and Dabee, 1999; IMF, various years).

Having used various pegged exchange rate arrangements to stabilize the value of the currency in the 1980s, Mauritius adopted a free-floating system in 2008.

Having used various pegged exchange rate arrangements to stabilize the value of the currency in the 1980s and a managed float during the 1990s, Mauritius adopted a free-floating system in 2008. Capital controls are currently very limited, and the Bank of Mauritius intervenes in the foreign exchange market to reduce exchange rate volatility, but not to counteract market forces.

Following the global financial crisis of 2008–2009, Mauritius implemented a fiscal and monetary stimulus package equivalent to around 5 per cent of its GDP in 2009–2010. This included infrastructure spending, financial relief to firms adversely affected by the crisis, and social and job protection measures. This package was partly financed by "rainy day" funds, set aside in previous financial years, amounting to around 3 per cent of GDP.

Viet Nam has aimed at fundamentally changing the organization and structure of the economy through gradual, "dual-track" economic reforms rather than a "big-bang" approach.

G. Viet Nam

Viet Nam has pursued a development path similar to China's. It has aimed at fundamentally changing the organization and structure of the economy through gradual, "dual-track" economic reforms rather than a "big-bang" approach. The similarities in policy between the two countries reflect close parallels between their respective economic and political contexts, as well as a conscious effort by policymakers in Viet Nam to learn from China's experience and adapt its policy approaches to local conditions where appropriate.

Banking sector reform in Viet Nam focused on diversifying the ownership structure and increasing the market orientation of an initially State-owned banking system.

1. Resource mobilization

Banking sector reform in Viet Nam focused on diversifying the ownership structure and increasing the market orientation of an initially State-owned banking system. Major reforms began in 1988 with the establishment of a two-tier banking system in which the central bank, the State Bank of Vietnam (SBV), focused on monetary policy and oversight of commercial banks, and commercial banks concentrated on the mobilization and allocation of financial resources.

Resource mobilization occurred largely through "financial restraint" arising from a public sector monopoly on commercial banking that left savers with few other places to deposit savings; and these resources were mostly channelled to financing SOEs at preferential rates in accordance with government policy objectives.

Viet Nam has been highly successful in mobilizing large-scale FDI inflows, which surged from 2.8 per cent of GDP in 1990 to 6 per cent in 1995–2010.

In 1988, there were four SOCBs serving different sectors: the Vietnam Bank of Agriculture and Rural Development (Agribank); the Industrial and Commercial Bank of Vietnam (ICB); the Bank for Investment and Development of Vietnam (BIDV), which provided long-term financing of infrastructure and public works projects; and the Bank for Foreign Trade of Vietnam (Vietcombank or VCB), which financed trade-related activities, managed foreign exchange and assisted SOEs (Ho and Ashle, 2011; Rosengard and Du, 2009). The SOCBs were only marginally commercially oriented; the SBV continued to set lending and deposit rates, and lending rate differentials were based on investment priorities between sectors and between working capital and fixed investment rather than on credit risk. Access to loans was a function of policy priorities rather than profitability or market potential; and savings rates differentiated between households and businesses and were not based on market prices or banks' liquidity needs.

Viet Nam's economic "renovation" (doi moi) strategy, launched in 1986, had two main objectives: (i) a transition from a centrally planned to a market-based economy; and (ii) to support export-oriented industries.

By the 1990s, however, bank ownership was diversified through the introduction of joint stock commercial banks and the establishment of foreign bank branches or (minority) joint ventures with domestic banks.[15] Foreign bank operations were limited in scope and in the products they could offer, and initially had higher requirements for start-up capital. Even in 2007, SOCB loans, mainly to SOEs, accounted for the largest share (54 per cent) of total loans (Leung, 2009; Rosengard and Du, 2009). The transition to commercial banking was beset with problems arising from the accumulation of non-performing loans, and by 2000, Viet Nam established four asset management companies (AMCs) to remove bad assets from the four main SOCBs, later coupled with the creation of the Debt and Asset Trading Corporation in 2003 (Rosengard and Du, 2009).

Viet Nam has been highly successful in mobilizing large-scale FDI inflows, which surged following the ending of the United States embargo in 1994, from 2.8 per cent of GDP in 1990 to 6 per cent in 1995–2010. This increase partly reflects Viet Nam's policy of openness as well as the size and rapid growth of its economy, supported by the establishment of industrial zones and EPZs. FDI led to an increase in the share of foreign-invested enterprises in industrial output, and contributed substantially to the rapid expansion of exports, from $5.4 billion in 1995 to $96 billion in 2011.

The "renovation" strategy began in agriculture, particularly rice cultivation.

2. Rural development, economic diversification and industrial policy

Viet Nam's economic "renovation" (*doi moi*) strategy, launched in 1986, had two main objectives. The first was a transition from a centrally planned to a market-based economy, allowing domestic prices to reflect world prices. This was intended to improve resource allocation, increase the number of entities engaged in trade, remove exchange rate distortions and reform enterprise governance to increase responsiveness to price signals. The second objective was to support export-oriented industries to counter the anti-export bias of the previous economic system.

In 1987, all sectors of the economy except defence were opened up to foreign investors.

The "renovation" strategy began in agriculture, particularly rice cultivation. Collective farming was dismantled in 1988–1989, with transferrable time-limited land use rights (though not ownership) allocated to farming households, which were recognized as the basic unit of agricultural production. Barriers to internal and external trade in agricultural goods were progressively relaxed, and

incentives were improved by the removal of administered prices in 1989, as the official price of rice in 1988 was about one tenth the free market price (Dollar and Litvack, 1998; Glewwe, 2004). The results were impressive: between 1985 and 1995, rice production grew by 57 per cent, largely due to increased yields and intensive farming, and Viet Nam started to export rice in 1989, later becoming the world's third largest exporter after Thailand and the United States (Minot and Goletti, 2000).

FDI projects are often required to conform to one or more 5–10-year sectoral "master plans".

Major enterprise reform was also undertaken, allowing greater autonomy over commercial activities, improving the overall market environment and permitting the entry of foreign-owned firms. In 1987, all sectors of the economy except defence were opened up to foreign investors, with up to 100 per cent foreign ownership, and generous tax holidays and duty exemptions. EPZs and industrial parks offered further incentives to firms, including preferential tax rates and exemptions from import and export duties. A new Investment Law was introduced in 2005 aimed at conforming with international commitments. It aligned incentives to foreign and domestic investors by designating sectors in which investment was "incentivized", "conditional" or "prohibited", as well as "geographical areas of investment incentives". Incentivized investment sectors covered a wide range, encompassing manufacture of new materials and high technologies, agriculture, forestry and aquaculture, and labour-intensive industries (National Assembly, 2005). FDI projects are often also required to conform to one or more 5–10-year sectoral "master plans" each of which sets targets for the industry concerned.

In 2011, SOEs accounted for more than one third of GDP, half of exports, and 40 per cent of industrial production

The SOE sector was reformed in 1988–1989, increasing SOEs' autonomy over production, prices and the hiring and firing of workers, while reducing direct subsidies (McCaig and Pavcnik, 2013), but the pace of SOE restructuring slowed down as of mid-2000. The number of SOEs (especially local-government SOEs) fell sharply between 1988 and the mid-1990s, from around 12,000 to 6,500. Meanwhile, rapid output growth by larger private firms was offset by a steep decline in output of non-State cooperative industries, as many cooperatives closed or changed ownership through purchase by individual members or corporatization (O'Connor, 1998).

In the 2000s, shoes, garments and textiles dominated exports, with some increases in the assembly of electronic devices.

Thus, even in 2011, SOEs accounted for more than one third of GDP, half of exports, 28 per cent of total domestic government revenue (excluding crude oil revenue and trade taxes), and 40 per cent of industrial production (OECD, 2013). Furthermore, the State Capital Investment Corporation was created in 2005 to oversee and manage state assets in all but the 19 largest SOEs (Rosengard and Du, 2009; OECD, 2013).[16]

Domestic reforms were reinforced by the signing of international trade agreements, including a preferential trade agreement with the European Economic Community in 1992, membership of the Association of Southeast Asian Nations (ASEAN) in 1995, a bilateral trade agreement with the United States in 2001, and accession to the World Trade Organization (WTO) in 2007. WTO membership nevertheless allows Viet Nam to continue to make use of flexibilities to maintain a proactive trade policy, including recently raising tariffs to the bound level for a range of products, particularly in the agricultural and horticultural sectors (USTR, 2012).

Viet Nam has adopted an unorthodox macroeconomic policy framework, combining a stable, competitive exchange rate with strong controls over portfolio capital flows.

In the 1990s, shoes represented one third of Vietnam's exports, petroleum for about 25 per cent, and agricultural and aquatic products (rice, coffee, rubber, shrimp, fish, etc.) accounting for much of the remainder. In the 2000s, the composition of Vietnam's export basket stayed roughly the same: shoes, garments, textiles dominated with some increases in the assembly of electronic devices (Perkins, 2013; Athukorala, 2009).

3. Macroeconomic policies

Exchange rate arrangements resulted in an increase in foreign exchange reserves from $1.3 billion in 1995 to $23.9 billion in 2008.

Viet Nam has adopted an unorthodox macroeconomic policy framework, combining a stable, competitive exchange rate with strong controls over portfolio capital flows, thus allowing a degree of monetary policy independence.

For much of the reform period, Viet Nam used a pegged exchange rate within horizontal bands to stabilize the economy while maintaining competitiveness. It changed to a managed floating exchange rate in 2001, and to a conventional pegged arrangement in 2005. While such exchange arrangements require the use of capital controls, and despite restrictions on short- and medium-term capital inflows, Viet Nam has attracted significant FDI inflows and remittances (Camen, 2006; Hauskrecht and Le, 2005; IMF, various years). Combined with surrender requirements on export proceeds (set at 50 per cent for all resident enterprises in 1999) until 2003,[17] these exchange rate arrangements resulted in an increase in foreign exchange reserves from $1.3 billion in 1995 to $6.2 billion in 2003 and $23.9 billion in 2008 (World Bank, 2008).

SOCBs accounted for three quarters of loans in the early 2000s, and other policy tools continued to be applied to influence interest rates.

Since the early 1990s, the fiscal deficit has generally been around 3 per cent of GDP, and sometimes lower; but off-budget expenditures (primarily bond-financed infrastructure investments) have also been substantial in several years since 2000, increasing the deficit to a peak of 7 per cent of GDP in 2003. Interest rates have gradually been liberalized since the mid-1990s, with the removal of deposit rate floors (except for foreign currency deposits) in 1996 and lending rate ceilings in 2000. These were initially replaced by reference rates announced monthly by the SBV. Interest rates were liberalized for foreign currency-denominated loans in 2001, and for domestic currency-denominated loans in 2002, thus allowing commercial banks to set lending and deposit rates according to market conditions (Camen, 2006).

The policy frameworks of the four country experiences reveal important common features which may inform policymaking in LDCs.

Although SOCBs did not fully incorporate risk in their lending rates, they accounted for three quarters of loans, and other policy tools continued to be applied to influence interest rates. Thus there was no discernible increase in interest rates for domestic currency-denominated loans following their liberalization. The basic interest rate announced monthly by the SBV is now effectively a reference rate on which banks base their lending rates. The SBV is not fully independent and is an integrated part of Government. For some other interest rates (e.g. on dollar deposits for corporate clients) de facto ceilings appear to persist, and larger SOCBs and joint stock commercial banks appear to cooperate in setting deposit rates to avoid excessive competition (Camen, 2006).

First policymakers were pragmatic in modifying the conventional economic policy advice of the time, adapting policy instruments and institutional arrangements to their particular interests, concerns and objectives.

Other indirect monetary policy tools introduced since the mid-1990s include reserve requirements, refinancing and discount lending facilities, open market operations and foreign exchange interventions. By the mid-2000s, reserve requirements were differentiated according to the maturity of deposits, the sectoral focus of banks and types of currency deposits (Leung, 2009). Open market operations related to the purchase and sale of SBV bonds and other securities, begun in 2000, have become “the single most important monetary instrument for controlling liquidity” (Camen, 2006: 236–237).

H. Summary and conclusions

While the four country experiences described in this chapter exhibit distinctive attributes, at a broader level, their respective policy frameworks reveal important common features which may inform policymaking in LDCs.

First, perhaps the most striking common feature of the four development experiences is their pragmatism. While the four governments had extremely diverse ideological standpoints, and this undoubtedly affected their respective approaches, they all demonstrated a willingness to set ideology aside, whether socialist or free market, in the quest for means of achieving their economic goals. In each case, policymakers modified the conventional economic policy advice of the time, adapting policy instruments and institutional arrangements to their particular interests, concerns and objectives. The emphasis was thus less on a generic "best practice" in policymaking than on best matches with national circumstances, priorities and capabilities.

Second, policies in the three key areas — resource mobilization, industrial policies and macroeconomic management — were not independent, but emanated from a holistic vision of development and structural transformation.

Second, policies in the three key areas around which these countries built their development strategies — resource mobilization, industrial policies and macroeconomic management — were not independent, but emanated from a holistic vision of development and structural transformation, and a coherent overall strategy. Their macroeconomic framework, for example, sustained their industrial and diversification strategies, with all four countries making extensive use of managed exchanged rates and using capital controls to favour FDI over portfolio investment.

Third, the four countries adopted a gradual approach to liberalization and integration into the global economy.

Third, the four countries adopted a gradual approach to liberalization and integration into the global economy. This was most evident in China and Viet Nam, where microeconomic reforms comprising price and institutional changes with a view to increasing productivity preceded market liberalization and increasing openness. Mauritius, too, made relatively few reductions in its trade protection until the mid-1990s, and even Chile took almost three decades to complete its financial liberalization.

Fourth, rural development provided much of the momentum for reform of the industrial sector.

Fourth, rural development provided much of the momentum for reform of the industrial sector. The impressive productivity growth in agriculture was a major feature of the Chilean experience, while rice and sugar were of crucial importance in Viet Nam and Mauritius respectively. China also illustrates this rural-industrial sequencing, the success of the household responsibility system in agriculture paving the way for the implementation of similar policies in other sectors, mainly manufacturing.

Finally, the diversification and upgrading of production has proceeded through a combination of private and public investment, and domestic and foreign resources.

Finally, the diversification and upgrading of production has not relied on any single financing source in any of the four countries; rather, it has proceeded through a combination of private and public investment, and domestic and foreign resources. The banking and financial sectors of the four economies underwent major reform processes, but the role of national development banks in fostering access to credit (in Mauritius and Viet Nam), strategic investments in innovation (in Chile) and allocation of private investment (in China) were equally important to the transformation process. Likewise, FDI constituted a source of or catalyst for growth, particularly of the export sectors in all the countries, reflecting the strategic approach of the four countries to FDI policy, guided by their respective national development priorities.

Notes

1 This is the so-called fallacy of composition, which is however limited by the small size of the economy of most LDCs (Cline, 2010).

2 These include pension funds, insurance companies, mutual funds and foreign investment funds.

3 Indeed, according to COCHILCO (2012: 72–73), the combined taxes paid by major private mining companies and contributions from publicly-owned mining companies spiked to 34.1 per cent of total government fiscal revenues in 2006 ($12.9 billion), and to 32 per cent in 2007 ($14.2 billion).

4 These were the Agricultural Bank of China (for financing the rural and agricultural sectors), the Bank of China (for financing foreign trade and investment), the People Construction Bank of China (for financing construction and fixed-asset investment) and the Industrial and Commercial Bank of China (for financing the business activities of SOEs).

5 These were the China Development Bank (CDB), the Export and Import Bank of China (Exim) and the Agricultural Development Bank of China (ADBC).

6 In the early 1990s, Chinese financial resources were still not channeled through capital markets, but remained mostly managed via administrative measures such as an annual credit plan imposed on financial institutions. The State Planning Commission, working jointly with the PBoC, determined the aggregate lending quota for the national economy, which was further sub-divided for each province and municipalities with provincial-level administrative status (Beijing, Shanghai, Tianjin). Under the credit plan, banks were frequently forced to provide loans to assist regional economic growth with little regard for credit risk, which led many of these loans to later become nonperforming, and could not effectively control total money supply (Okazaki, 2007).

7 For instance, foreign firms were permitted to use their renminbi earnings to invest in local export-oriented production, or convert the earnings into foreign currencies through swap markets that were opened in the late 1980s to assist foreign firms to balance their foreign exchange accounts (Yu, 2008; Epstein et al., 2004; Perkins, 2013).

8 Prior to the transfer of sovereignty of Hong Kong from the United Kingdom to China in 1997, Hong Kong was classified as a British Dependent Territory.

9 Though initially some government authorities resisted the HRS experiment by late 1981, it was widely accepted, and almost half of all production teams were dismantled.

10 By 1986, the central Government announced that it would reduce the number of agricultural procurement prices set centrally to 17 products and would set "guidance" procurement prices for another 11 products. At times, reforms have been fitful and reversed due to the Government's concerns of loss of control and unanticipated outcomes, but these have been expedient detours rather than a return to previous practices (Sicular, 1988). The supply of other agricultural inputs, such as credit, and chemical fertilizers in particular, also increased substantially during the reform period (Lin, 1992; Stone, 1988). State control over procurement and prices of farm inputs was relaxed only gradually during the reform era, beginning in the mid-1980s with machinery, pesticides and plastic film, and in the early 1990s it was extended to key inputs such as chemical fertilizers (Huang et al., 2008). By the mid-1990s, about 50 per cent of fertilizers were sold by private traders (Rozelle and Swinnen, 2004).

11 China's exchange rate system officially changed to a managed float in 1994, but the Chinese currency was de facto fixed to the United States dollar from 1995 until 2005, when the renminbi's value was set with reference to a basket of currencies (Wang, 2004; PBoC, 2008).

12 In 2006, for example, the share of the trade surplus in the current account surplus was 87.1 per cent. That same year, China's foreign exchange reserves surpassed $1 trillion for the first time.

13 By 2007, all export proceeds surrender requirements were eliminated.

14 The PBoC has adjusted the ratio 42 times since 1998, and in recent years it stood at 20 per cent, which is double the ratio for large banks in the United States (Yu, 2014; Martin, 2012; Ma et al., 2011).

15 Three policy banks were also created: Vietnam Bank for the Poor in 1995 (renamed Vietnam Bank for Social Policy in 2002), the Development Assistance Fund in 1999 (renamed Vietnam Development Bank in 2006), and the Vietnam Postal Savings Service Company, a subsidiary of Vietnam Post and Telecommunications Corporation, in 1999. A smaller SOCB, the Mekong Housing Bank, was formed in 1997, but was later converted into a purely commercial bank (Rosengard and Du, 2009; Camen, 2006).

16 The remaining large SOEs were restructured into different corporate groupings called State Corporation 90 (created in 1990) and State Corporation 91 (created in 1991) and other economic groups which act as state-holding companies.

17 In 2003, the surrender requirement was reduced to zero from 30 per cent.

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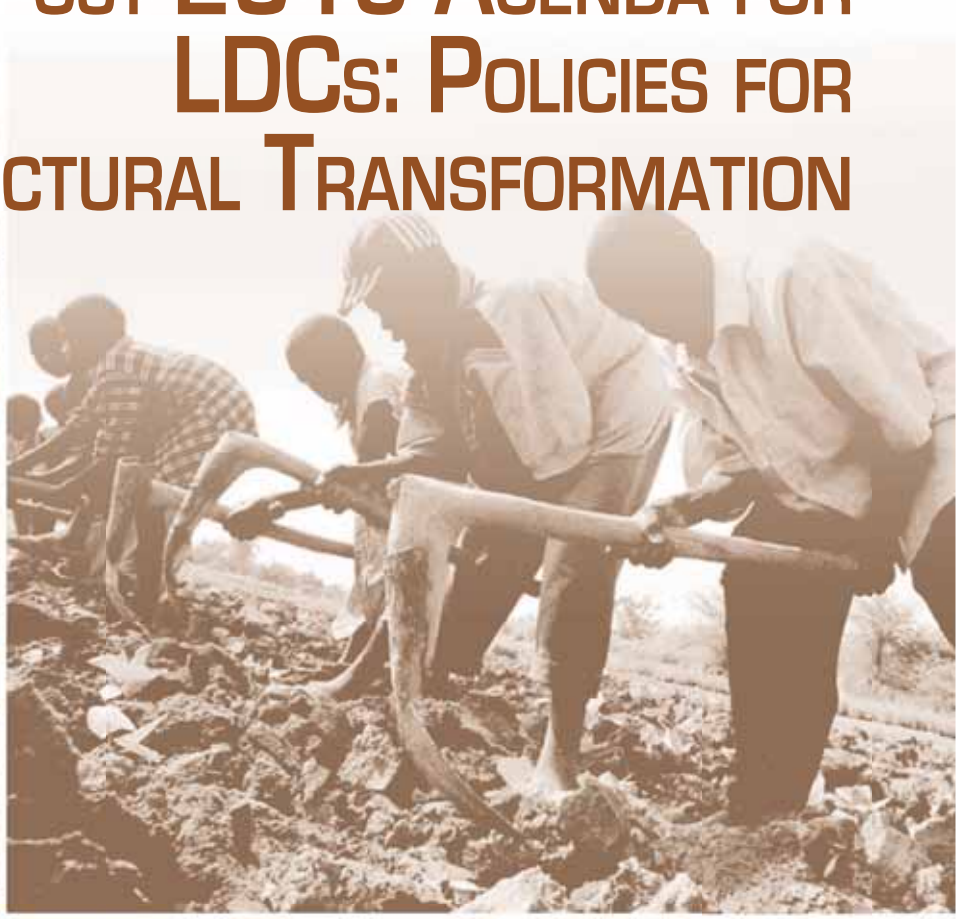
CHAPTER 6

A Post-2015 Agenda for LDCs: Policies for Structural Transformation






A. Introduction

Despite relatively rapid economic growth since around 2000, reflecting strong increases in commodity prices and in official development assistance (ODA), the majority of the least developed countries (LDCs) are off track on most of the Millennium Development Goals (MDGs). This reflects, in part, their failure to achieve the kind of structural transformation that has characterized successful adjustment experiences in other developing countries (ODCs), such as those considered in chapter 5 of this Report. The planned sustainable development goals (SDGs) accompanying the post-2015 development agenda will constitute an even more ambitious undertaking in a more challenging economic environment. This lends still greater urgency to the need for structural transformation in the LDCs.

A key lesson from the four success cases discussed is the pragmatic approach they adopted in seeking effective solutions to particular challenges posed by their particular circumstances.

This chapter does not attempt to propose a universal blueprint for a comprehensive set of policies for structural transformation to achieve and sustain the SDGs. Given their great diversity, each LDC will need to chart its own development course suited to its particular characteristics and circumstances. Rather, the chapter seeks to identify approaches to tackling the challenges facing all LDCs, and the types of policy instruments which may be useful for this purpose. A key lesson from the four success cases discussed in chapter 5 is the pragmatic approach they adopted in seeking effective solutions to particular challenges posed by their particular circumstances.

The post-2015 development agenda implies not only a shift in global policy goals, but equally important changes in the economic environment for development.

The chapter begins with a discussion of the likely implications of the planned SDGs for development in LDCs and for their development strategies in the 2015–2030 period (section B). The subsequent sections (C to E) consider domestic policy options in three broad areas which are the main requirements for structural transformation:

- Resource mobilization for public and private investment, and recurrent public expenditure;
- Industrial and sectoral policies to channel the resources into sectors and activities that promote economic transformation; and
- Macroeconomic policies which foster economic transformation rather than impeding it.

While it cannot be assumed that all the changes implied by the SDGs will occur, at least some movement in this direction must be anticipated.

The analysis of domestic policies is complemented by a discussion of other measures to improve the external environment for the development of LDCs. Those measures will be essential for helping LDCs achieve the economic transformation necessary for them to meet the planned SDGs in a "post-2015 world" (discussed in the final section).

B. A "post-2015 world"?

The post-2015 development agenda implies not only a shift in global policy goals, but equally important changes in the economic environment for development. Meeting the SDGs would make the world in 2030 a very different place and moving towards that different world would present a very different environment for development. Anticipating this "post-2015 world", and adapting development strategies to it, will be a critical aspect of efforts to achieve the SDGs. While it cannot be assumed that all the changes implied by the SDGs will occur, at least some movement in this direction must be anticipated: seeking to achieve an objective without taking account of the likely effects of doing so

is ultimately self-defeating. Some of the implications for LDCs that could be anticipated in a post-2015 development agenda are discussed below.

Accelerated progress towards poverty eradication will require much faster growth in the incomes of the poorest in most LDCs (discussed in chapter 3, section C, of this Report). Together with very high initial levels of poverty, this implies a considerable acceleration of demand growth for those goods which will be consumed in greater quantities by poor households as their incomes rise, notably staple foods such as cereals, higher-value foods (e.g. meat, fish, fruit and vegetables) and basic household goods.

Accelerated progress towards poverty eradication implies a considerable acceleration of demand growth for those goods consumed in greater quantities by poor households as their incomes rise.

Universal primary and secondary education and improved health would increase both the productive potential of labour and low- and medium-level human capital over time. More immediately, increased secondary enrolment would significantly reduce the labour force in most LDCs, particularly in family farming.

Achieving the post-2015 world would also have major implications for public finances. Considerable financial costs would be entailed in the provision of universal health services, universal free primary and secondary education, and water, sanitation and modern energy supply; in the development of transport and communications infrastructure; in adaptation to climate change; and in ensuring affordable housing, basic services and the elimination of slum-like conditions. Improving the seriously deficient physical infrastructure in most LDCs would also entail considerable capital costs.

Achieving the post-2015 world would have major implications for public finances.

Financial constraints in most LDCs, except in a few fuel exporters, suggests that such costs would have to be met largely through ODA, implying a need for much greater aid flows throughout the 2015–2030 period. This could help spur a substantial increase in domestic demand. Equally, additional recurrent costs (e.g. for teachers' and health workers' salaries) would imply a substantial increase in current public spending, requiring a commensurate increase in public sector revenues.

Improving the seriously deficient physical infrastructure in most LDCs would imply a need for much greater ODA flows throughout the 2015–2030 period.

As discussed in box 3 (chapter 3), global efforts to mitigate climate change could have significant effects on international markets for some key exports, notably long-distance tourism and horticultural products, as well as limiting the adoption of development paths involving the exploitation of fossil fuels. This is a major source of uncertainty, as the nature and scale of these effects will depend on globally adopted approaches to reducing carbon emissions. Together with increased domestic demand due to higher ODA and rapid poverty reduction, such uncertainty in key export markets suggests that there would be some shift in the balance of advantage from strongly export-led development strategies towards a greater balance between domestic and external demand.

Global efforts to mitigate climate change could have significant effects on international markets for some key exports, notably long-distance tourism and horticultural products.

C. Resource mobilization

In addition to the investments required to achieve the SDGs themselves, further investments, both private and public, will be necessary to achieve the structural transformation needed to ensure that those goals are sustained. Incomes will need to be raised, particularly among the poorest, and matched by higher productivity. This will require a shift of employment from less to more productive and dynamic activities, as well as technological upgrading within sectors, both of which can be achieved only through productive investment. Without investment, the composition of output and employment will not change, productivity will not grow, and there will be no economic transformation.

Mobilizing the public and private resources needed for investment, domestically and externally, is a critical concern.

Mobilizing the public and private resources needed for this investment, domestically and externally, is thus a critical concern.

1. The challenge of mobilizing private domestic investment

Fostering the development of a financial sector oriented towards financing productive investment is critical.

The primary source of productive investment in most other developing countries (ODCs), as in developed countries, is retained profits, while bank financing provides most of the remainder (UNCTAD, 2008, chap. 4). In LDCs, however, owing to their small domestic corporate sector, the profits available for reinvestment are limited, which makes bank credit much more important.

The constraint on development arises from limited credit and/or lack of profitable investment opportunities.

Most LDCs have underdeveloped financial sectors, and therefore low levels of bank lending, which is often oriented towards consumption, housing and the public sector rather than to productive investment. In most African LDCs, between 70 per cent and 90 per cent of small and medium-sized enterprises (SMEs) lack access to formal financial institutions (Africa Progress Panel, 2014). Thus, fostering the development of a financial sector oriented towards financing productive investment is critical.

While domestic savings are generally small in LDCs, the constraint on development arises less from low savings than from low investment, reflecting limited credit and/or lack of profitable investment opportunities. Equally, the level of deposits is generally not the main constraint on bank lending; rather, credit is kept at artificially low levels relative to deposits by a combination of high reserve requirements, weaknesses in regulatory regimes, a preference for lending to the public sector, weak information systems and/or limited skills in risk assessment and management (Freedman and Click, 2006). For example, in sub-Saharan Africa (where two thirds of LDCs are located), while financial sector development has followed growth, the ability of banks to extend credit has not followed suit (Demetriades and James, 2011).

The nature of the savings-investment nexus in LDCs implies the need for a proactive role on the part of governments to create investment opportunities through industrial policies.

Risk is a key factor. High lending risks necessitate high reserve requirements and also discourage lending for domestic private investment. In sub-Saharan Africa, the domestic private sector accounts for only 30 per cent of banking assets, compared with 60–70 per cent in other regions (Honohan and Beck, 2007). Without opportunities for productive investment which offer an adequate rate of return at acceptably low levels of risk, efforts to increase savings will do little to spur growth, particularly where deposits are not the main constraint on credit.

Structural transformation cannot rely entirely on FDI; it requires the emergence of an indigenous modern sector.

Thus, rather than waiting passively for the financial sector to finance investment, the nature of the savings-investment nexus in LDCs implies the need for a proactive role on the part of governments to create investment opportunities through industrial policies (Rodrik and Subramanian, 2009).

2. Harnessing foreign direct investment for structural transformation

The balance of advantage between foreign and domestic investment varies widely between sectors and activities, and according to local economic circumstances.

Foreign direct investment (FDI) can be an important complement to domestic investment as part of a wider development strategy. Indeed, it has been central to the development of export-oriented manufacturing in some LDCs, particularly in Asia, as well as to the development of extractive industries in mineral- and fuel-exporting LDCs. However, structural transformation cannot rely entirely on FDI and foreign-owned enclaves; it requires the emergence of an indigenous modern sector.

The balance of advantage between foreign and domestic investment varies widely between sectors and activities, and according to local economic

circumstances. FDI can offer greater access to productive technologies and export markets, but it may have fewer forward and backward linkages with the local economy and/or be more capital-intensive. Local reinvestment of profits may be more limited, and profit remittances by transnational corporations can constitute a potentially substantial foreign exchange outflow.

FDI is most likely to be beneficial where it offers access to foreign markets or to strategically important technologies and where it improves the availability and/or quality of capital and intermediate goods.

FDI is most beneficial where it offers access to foreign markets or to strategically important technologies which would not otherwise be available. However, technology transfer depends on technological spillovers to locally-owned companies; and such spillovers require a dynamic domestic industrial sector that is able to absorb and utilize such technologies. While there have been few studies on intra-industry productivity spillovers in LDCs, the evidence in ODCs is "weak, at best". Spillovers depend on educational attainment, research and development (R&D) expenditures and the quality of infrastructure (Wooster and Diebel, 2010), which are generally weaker in LDCs.

Even without technology transfer to local companies, however, FDI may improve the availability and/or quality of capital and intermediate goods, or reduce their cost. It may also play an important role as a component of particular development strategies such as the development of natural-resource-based productive clusters.

Technology choices by foreign investors tend to reflect the relative availability of factors of production in the source countries (Acemoglu, 2001). South-South FDI in manufacturing may thus be more beneficial than North-South FDI, to the extent that it uses more labour-intensive production technologies. In China, for example, while foreign-owned companies are at the technology frontier in (relatively capital-intensive) high-technology sectors, it is indigenous companies which are in this position in (less capital-intensive) low- and medium-technology sectors (Fu and Gong, 2011). In addition, FDI from the South may be more conducive to technology transfer owing to its narrower technology gap with LDCs (Kokko, 1994; Chuang and Hsu, 2004).

Harnessing FDI for economic transformation requires a strategic approach, proactive policies and selectivity.

Harnessing FDI for economic transformation requires a strategic approach, proactive policies and selectivity, as the nature of foreign investment and its relationship with domestic investment are as important as the amount. Efforts to attract FDI should be based on a careful assessment of which activities offer the greatest potential for forward and backward linkages and technology transfer, and/or contribute most to increasing the productivity of domestic industry (e.g. in business services). The costs of any incentives offered to attract FDI should also be weighed carefully against the development benefits of the investment targeted, taking into account the likelihood of success and the opportunity costs.

3. Tapping the diaspora

There may be significant unexploited potential for investment by the diaspora in infrastructure, public goods and productive sectors.

Migrants' remittances are an important source of foreign exchange in many LDCs, and could be further enhanced by measures to reduce transfer costs.[1] However, as they are private transfers between households, used largely for consumption, their direct potential to finance the additional fixed investment needed for structural transformation is limited.

Beyond remittances, however, there may be significant unexploited potential for investment by the diaspora, in infrastructure, public goods and productive sectors, particularly where the "brain drain" has created substantial and relatively affluent diaspora communities (UNCTAD, 2012).

While more limited in scale than conventional FDI, direct investment by the diaspora may have important advantages for development. Diaspora

investors can provide greater access to foreign technologies and markets than local investors, and they are more familiar with local conditions, have greater connectedness with the local economy, and are more likely to reinvest profits locally than conventional FDI. Diaspora investors may also be more motivated than transnational companies to encourage, rather than impede, technology transfer, and they may be more inclined and better placed to adapt it to local conditions (Wei and Balasubramanyam, 2006; Boly et al., 2014; Guha and Ray, 2002;USAID, 2009).

Strengthening and diversifying public revenues would help governments finance at least part of the recurrent costs of meeting the planned SDGs.

Serious consideration should thus be given in the post-2015 agenda to developing mechanisms to encourage productive investment by the diaspora, directly (through individual investment projects)[2] and/or indirectly (e.g. through the establishment of managed funds or issuance of diaspora bonds by development banks).

4. Mobilizing public revenues

In most LDCs, strengthening tax collection capacity is a priority, both for national policy and for ODA and technical support.

Public revenues in most LDCs account for 10–20 per cent of gross domestic product (GDP),[3] around half the level in most ODCs (20–35 per cent). This reflects their lower income levels, smaller tax bases and often limited collection capacity. Strengthening and diversifying public revenues is thus a high priority, as it would help governments finance at least part of the recurrent costs of meeting the planned SDGs, and of the investments they require. Where revenues can be increased sufficiently to allow some domestic financing of public investment, this could reduce aid dependence, increase autonomy and flexibility in making investment decisions, and reduce limitations arising from tied aid.

For fuel and mineral exporters, resource rents could contribute significantly to financing for both public and private investments.

Measures which may be beneficial in this regard include increased taxation on higher incomes and on higher value urban properties; introducing consumption taxes on luxury goods and excise duties on alcohol, tobacco products and vehicles; reducing value added tax (VAT) exemptions on non-essential items; reducing tax holidays and exemptions for corporations and expatriates; and introducing taxes on financial transactions, where the financial sector is relatively developed (UNCTAD, 2009; 2013). Where appropriate, as part of a broader development strategy, raising import tariffs (within the limits of existing trade agreements) could also provide additional revenues, and drawing informal enterprises into the formal economy could help to broaden the tax base over the long term (see sections D3c and D3e of this chapter).

In most LDCs, strengthening tax collection capacity is a priority, both for national policy and for ODA and technical support. Devoting part of ODA to this purpose in the coming years could help to ensure that ODA reduces financial dependence rather than increasing it (UNCTAD, 2010; ECOSOC, 2014).

Even with higher revenues, most LDCs would require a substantial increase in ODA to finance the infrastructural investments needed to meet the planned SDGs.

For fuel and mineral exporters, resource rents could contribute significantly to financing for both public and private investments. Where public revenues generated by extractive industries are limited under existing contracts, there is a case for increased taxation or the renegotiation of those contracts. The additional resources could be used both to fund public sector infrastructure projects (African Union, 2009) and to finance private investment which contributes to structural transformation, for example through development banks.

5. Maximizing the development impact of ODA

Even with higher revenues, most LDCs would require a substantial increase in ODA to finance the infrastructural investments needed to meet the planned SDGs.[4] There may be a role for FDI in financing some elements of commercially

oriented infrastructure development in LDCs, such as port facilities (UNCTAD, 2014b). Elsewhere, however, the potential is weaker in a context of very limited purchasing power and high perceived risks. This applies particularly to investments more directly related to the SDGs, which offer limited potential for commercial returns (e.g. extension of health services and education), which require primarily small-scale village-level investments (e.g. rural electrification, water supply and sanitation), or where potential financial returns are low (e.g. affordable housing, slum upgrading and rural feeder roads).

Increased ODA would present an important opportunity to boost demand.

As noted in section B of this chapter, increased ODA would present an important opportunity to boost demand. This effect could be strengthened by using labour-intensive methods and local procurement, particularly in transport infrastructure, construction, water and sanitation, waste management, flood protection, irrigation and drainage, repairs and maintenance, land reclamation and afforestation (UNCTAD, 2013, chap. 5). Labour-intensive methods can increase employment creation by a factor of between two and five, and may also reduce costs significantly (Devereux and Solomon, 2006).

Labour-intensive methods can increase employment creation by a factor of between two and five, and may also reduce costs significantly.

The potential role of ODA in fostering rural economic diversification and the importance of sequencing in this context are discussed in section D5 below.

D. Industrial policy and economic diversification

Economic transformation requires not merely increasing the resources available for investment, but also ensuring enough of the "right" kinds of investment, using the "right" technologies in the "right" sectors to achieve the following:

- Diversification, by developing new industries and activities, and increasing value addition in existing industries and activities;
- Deepening, by creating forward and backward linkages with existing industries; and
- Upgrading of products and processes.

The objectives of industrial policy are diversification, deepening and upgrading.

These are the objectives of industrial policy (Lauridsen, 2010).

While practical objections have in the past been raised to industrial policy (e.g. problems in "picking winners", limited capacity and the risk of rent-seeking behaviour), the 2007 financial crisis, in particular, has led to a major shift in attitudes. As noted by Stiglitz et al. (2013:2), "Today, the relevance and pertinence of industrial policies are acknowledged by mainstream economists and political leaders from all sides of the ideological spectrum".

1. Industrial policy: Why and how?

a. Structural transformation and the need for industrial policy

Successful development in LDCs requires breaking out of several interconnected vicious circles simultaneously.

Successful development in LDCs requires breaking out, not of one vicious circle, but of several interconnected vicious circles simultaneously. Serious imperfections in credit, labour and product markets are compounded by the vicious circle of human and economic development highlighted in chapter 3 of this Report. Small and volatile markets discourage investment, and the lack of investment keeps markets small and volatile. Poverty triggers social tensions, conflict and insecurity, which exacerbate poverty. Inadequate infrastructure limits development, which limits the resources available for investment in

infrastructure. And limited administrative capacity is both a product and a cause of low public revenues.

LDCs do have the capacity to build developmental States.

Thus, development requires simultaneous improvements in several areas, including education, financial and legal institutions, infrastructure, business services and productive sectors. However, each of these depends on prior improvements in all the others, giving rise to a serious coordination problem (Lin and Chang, 2009). Since no private actor has the incentive or the capacity to resolve this coordination problem, it requires effective action by a developmental State. Contrary to common perceptions, LDCs do have the capacity to build developmental States (UNCTAD, 2009: chap. 1).

There is a role for "vertical" interventions aimed at encouraging new, particularly promising economic activities as well as "horizontal" industrial policies.

Economic diversification requires experimental investments by entrepreneurs, in order to discover which new products and production processes are commercially viable in a particular setting. Such experimentation has enormous economy-wide benefits: when successful, it establishes new economic activities, while failures provide invaluable information to other investors. However, the incentives to individual investors do not reflect these benefits. If an investment fails, the investor loses everything; if it succeeds, it may be profitable only until others imitate the innovation. Hence "the deck is stacked against entrepreneurs who contemplate diversifying into non-traditional areas" (Rodrik, 2008: 4-5). This compounds the uncertainty inherent in innovation, further discouraging both entrepreneurs and lenders (Hausmann and Rodrik, 2003).

This indicates a role for "vertical" interventions as well as "horizontal" industrial policies — that is, for interventions aimed at encouraging new, particularly promising economic activities which are of particular importance to development, but are discouraged by skewed incentives, as well as for policies aimed at correcting market-wide imperfections (e.g. support to business start-ups in general), as done in the countries discussed in chapter 5 of this Report.

b. Principles of industrial policy

Industrial policy in LDCs should direct resources towards traditional sectors as well as modern sectors.

Effective industrial policy requires an appropriate governance framework, particularly to avoid rent-seeking behaviour. Three basic principles proposed by Rodrik (2008a) can provide a useful basis for such policies in LDCs:

- "Embeddedness", or "embedded autonomy" (Evans, 1995), allowing strategic collaboration between public and private sectors without allowing capture by particular interests;
- A combination of "carrots" and "sticks": dropping losers as well as picking winners; and
- Accountability to the general public, to ensure that policies operate in the public interest.

The need to increase employment implies focusing not only on growth but also on job creation.

The scope of industrial policy is also important. Particularly in the post-2015 context, industrial policy in LDCs should not be confined to directing resources towards modern sectors. Since a substantial proportion of the workforce will inevitably remain in traditional sectors such as agriculture, increased productivity in these sectors will also be critical to poverty reduction.

Equally, as highlighted in *The Least Developed Countries Report 2013*, the need to increase employment implies focusing not only on growth but also on job creation. Investments which create few or no jobs (e.g. investments in labour-saving technologies and in extractive sectors) will do little to help structural transformation unless the profits generated are directed towards increasing the demand for labour-intensive products through tax policies and other incentives (UNCTAD, 2013, chap. 5).

Industrial policy should also not focus exclusively on following a country's comparative advantage. Structural transformation entails an accumulation of capabilities in new industries, which means also *anticipating and influencing changes* in comparative advantage (Lin and Chang, 2009).

Industrial policy should exploit more effectively those sectors which are in line with current comparative advantage ...

This suggests a dual strategy, with two parallel objectives. The first is to exploit more effectively those sectors which are in line with current comparative advantage, while progressively upgrading technologies in those sectors. The second is to encourage the development of sectors and activities which are somewhat ahead of the country's current comparative advantage, while accelerating the evolution of comparative advantage towards sectors and activities more conducive to development. This can be done, for example, through human resource development, R&D, infrastructure investment and attracting FDI in complementary activities (UNCTAD, 2012). This dual strategy was a common feature of the development strategies of the countries discussed in the previous chapter.

... and encourage the development of sectors and activities which are somewhat ahead of the country's current comparative advantage.

2. Targeting: "Picking possibles"

Like innovative investment (discussed in section D1a above), industrial policy is essentially experimental in nature: it is less about picking winners than picking possible winners and dropping losers, while maximizing learning from their failures. This requires a forward-looking approach, taking account of prospective changes in the domestic and international economic environments and in the country's comparative advantage.

Industrial policy is about picking possible winners, dropping losers and maximizing learning from failures.

a. Developing forward and backward linkages

One route to structural transformation is to begin from existing productive capacity and FDI, through:

- Backward linkages, producing goods and services used by producers;
- Forward linkages, adding value to existing products; and
- Horizontal linkages, e.g. subcontracting production, and the creation by former employees of new enterprises in similar activities, making use of their knowledge and experience.

One route to structural transformation is to begin from existing productive capacity and FDI, through backward, forward and horizontal linkages.

A particular option for LDCs with large mineral and/or agricultural sectors is to develop production clusters around natural-resource sectors,[5] as in the Chilean mining sector. This entails developing an interconnected network of firms by promoting backward and forward linkages from existing primary production; that is, production of equipment and inputs, processing of outputs and developing activities which use them as inputs (Ramos, 1998). Wider benefits may also be possible through lateral migration of technologies to other sectors, where there is sufficient absorptive capacity (Lorentzen and Pogue, 2009).

A particular option for LDCs with large mineral and/or agricultural sectors is to develop production clusters around natural-resource sectors.

Three priorities in promoting natural-resource-based production clusters (as noted by Pietrobelli and Rabellotti, 2004) are:

- Creating the conditions for early entry of SMEs into the sector;
- Public-private collaboration in research, with SME involvement; and
- Dissemination of research findings to SMEs.

FDI can play a valuable role in the development of upstream and downstream subsectors which depend on access to imported technologies (e.g. production of machinery for the extractive sector, or of some metal products).

b. Post-2015 possibles

The "post-2015 world" itself will generate new economic opportunities. While varying between countries, potential target activities might include the following:

The "post-2015 world" will generate new economic opportunities.

- Exploiting opportunities generated by ODA, such as,
  - Construction and related activities (e.g. masonry, metal-working and carpentry), production of construction materials, contracting, civil engineering, electrical and water/sanitary engineering, furnishings (e.g. for schools and medical facilities);
  - Consultancies and think tanks, for example, in fields such as project design, appraisal and impact assessment.
- Responding to increases in demand resulting from poverty reduction, such as,
  - Agricultural upgrading and diversification towards higher value crops (section D5 of this chapter);
  - Agricultural processing, including grinding/milling/shredding, preserving (drying, smoking, canning, bottling) and packaging;
  - Production of other basic consumer goods, including clothing and tailoring, household goods, furnishings, and residential construction, repairs and improvements.
- Production/provision of capital and intermediate goods, such as,
  - Tools and equipment for the above sectors (e.g. agricultural implements, tools for wood- and metal-working, machines for grinding and ovens);
  - Agricultural inputs such as fertilizers, pesticides and seeds;
  - Renting out agricultural machinery and vehicles;
  - Transportation services and logistics;
  - Technology-related services (e.g. mobile telephony, mobile phone apps and Internet services);
  - Business services.

Post-2015 possibles include: exploiting opportunities generated by ODA; responding to increases in demand resulting from poverty reduction; and production/provision of capital and intermediate goods.

Development banks have been a common feature among development success stories.

While some of these activities involve relatively low technology and/or are likely to foster primarily small and micro enterprises, such enterprises can constitute the seeds from which larger companies may grow and upgrade their technologies.

3. Institutions and policy instruments

a. Role of development banks

They require capacity strengthening and strict rules of accountability to ensure that benefits accrue to the economy as a whole.

Development banks have been a common feature among development success stories, including those discussed in the previous chapter of this Report. While they exist in many LDCs, they are often dysfunctional, or have limited development impact. Together with some past adverse experiences of rent-seeking and financial inefficiency in ODCs, this has given rise to a generalized reputational problem. Such problems are not inevitable, but a deliberate effort is necessary to avoid them. This requires capacity strengthening and strict rules of accountability to ensure that financial activities are not skewed by non-economic considerations, and that benefits accrue to the economy as a whole.

If improved along these lines, development banks could play an important role in structural transformation in LDCs. By promoting investments in

productive sectors, they can generate externalities in the form of new economic opportunities, employment, higher incomes and public resources. Even where they promote investments which prove unviable, the information this provides is an important externality.

Development banks can generate externalities in the form of new economic opportunities, employment, higher incomes and public resources.

As in the case of investments in infrastructure, such externalities are a good reason for public sector support. This justifies a lower financial rate of return for development banks than for private lenders. Equally, their optimal strategy is not to minimize mistakes, but rather to minimize the cost of mistakes should they occur, while maximizing learning from them by elaborating and disseminating the lessons of unsuccessful investments. Nonetheless, it is important to ensure that the wider economic benefits (of successful and unsuccessful projects) outweigh the costs over the long term. Assessments of the net benefits should take account of effects on growth, employment, tax revenues and information externalities, as well as the financial results of development banks themselves (UNCTAD, 2008, chap. 4).

Given the resource and institutional constraints in LDCs, the effectiveness of development banks could be enhanced by maximizing synergies with private financing, for example through co-financing with private lenders, or the provision of partial guarantees for commercial loans. Such approaches can simultaneously reduce risks to private lenders and reorient bank lending towards projects that contribute to economic transformation, while helping to ensure that the projects supported are commercially viable, by leaving part of the project risk with private lenders.

The effectiveness of development banks could be enhanced by maximizing synergies with private financing.

b. Fiscal incentives

A wide range of fiscal incentives is available to governments as tools of industrial policy in support of economic transformation, and can play an important role where the financial means are available to support them. On the taxation side, these include exemptions from particular taxes (e.g. duties on imports of capital or intermediate goods), tax holidays, deferred taxation, partial or complete tax rebates, preferential tax rates for particular sectors or activities, phasing in taxes for new market entrants, allowing losses to be set against subsequent profits, and allowing accelerated depreciation rates on some or all fixed assets. Subsidies may also be offered, for example on agricultural inputs or interest rates. The four countries discussed in chapter 5 of this Report made use of all these instruments at different times.

A wide range of fiscal incentives is available to governments as tools of industrial policy in support of economic transformation.

Through selective application, such incentives could be used to promote investments in particular sectors or activities, which could be defined either broadly (e.g. all exports, except for a specified list of traditional exports) or more specifically. It may also be useful to differentiate among firms by size, or between established companies and start-ups. Cost-effectiveness may be increased by phasing out incentives as new industries mature, based on predetermined criteria, as in the case of tax rebates for non-traditional export producers in Chile. Differential fiscal incentives may also be useful to direct FDI towards (or away from) particular activities or geographical areas, as under Viet Nam's 2005 Investment Law.

Through selective application, such incentives could be used to promote investments in particular sectors or activities.

As well as sectoral targeting, fiscal incentives should consider the particular behaviours that need to be encouraged (or discouraged) within each targeted sector or activity. For example, interest subsidies or accelerated depreciation may be used to encourage investment, or subsidies for inputs (e.g. in agriculture) to encourage their use. Tax holidays, phasing in taxes over a specified period, and allowing initial losses to be set against subsequent profits may be particularly useful for encouraging the establishment of new businesses.

c. Trade policies and export promotion

Identifying market opportunities for non-traditional exports and promoting them in potential markets offer substantial benefits at relatively modest financial cost. This can be done either through a particular agency (such as the Mauritius Export Development Investment Authority) or through a branch of the ministry of foreign affairs (as in Chile), to take advantage of the presence of overseas missions in potential markets. Given the limited geographical coverage of individual LDCs' diplomatic representation, regional cooperation could significantly enhance the benefits of the latter approach.

There is a need for a strategic approach to export opportunities arising from trade preferences, viewing them not as a basis for a long-term strategy, but rather as a stepping stone.

While trade preferences can provide important export opportunities, these may prove temporary, even where such preferences are not explicitly time-limited. The benefits may decline over time through preference erosion, and preferences tied to LDC status will be lost when countries graduate. The importance of this issue is highlighted by the case of Mauritius: when the Multi-Fibre Arrangement was phased out, the share of textiles and garments in total value added fell dramatically, from a peak of 12.9 per cent in 1999 to 5.8 per cent in 2012. With no compensating increase in other manufacturing sectors, the share of manufacturing in total value added fell from 24 per cent to 17 per cent — the level of 1983.[6]

This demonstrates the need for a strategic approach to export opportunities arising from trade preferences, viewing them not as a basis for a long-term strategy, but rather as a stepping stone. The rents they provide should be used strategically to maximize their long-term development impact by fostering technology transfer and supporting a transition to activities less dependent on trade preferences, for example by product upgrading.

EPZs can provide a means of combining export promotion with import substitution and may contribute to employment creation...

Import policies can also play an important role in economic transformation, as highlighted by the case of Mauritius (chapter 5 of this Report). Except for agricultural products, most LDCs have tariffs substantially below bound rates under World Trade Organization (WTO) agreements, leaving substantial discretion to increase them (although customs unions present a more binding constraint for some). Article XVIII of the 1994 General Agreement on Tariffs and Trade (GATT) explicitly recognizes LDCs' entitlement to use tariffs selectively as a means of infant industry protection "in order to implement programmes and policies of economic development designed to raise the general standard of living of their people". Such measures may be useful for establishing, developing and rejuvenating particular industries.[7]

d. Export processing zones

Export processing zones (EPZs) are at best a second-best option, in that they provide benefits only to a subset of enterprises. However, they are increasingly widespread throughout the developing world, reflecting the priority given to attracting export-oriented FDI. They can provide a means of combining export promotion with import substitution, as in Mauritius;[8] and they may contribute to employment creation, although only in smaller LDCs is this likely to be substantial relative to the total workforce.

... but the development benefits of FDI in EPZs depend critically on backward linkages.

As for FDI more generally, wider development benefits depend critically on backward linkages, not only to increase the share of export earnings retained in the domestic economy, but also to allow technology transfer. Producers in EPZs often use almost entirely imported inputs, and these foreign exchange costs largely offset export revenues. Hence, net EPZ exports are often only 10–20 per cent of their gross exports, reflecting limited domestic sourcing of inputs. In Bangladesh, for instance, only 3–6 per cent of EPZ inputs were domestically sourced in 1995–1996 (Bhattacharya, 1998: 44, tables 5.4 and 5.5).

Moreover, the perception that fiscal and other incentives are necessary to attract such FDI has given rise to a competitive process leading to increasingly generous fiscal incentives. EPZs may thus generate only limited tax revenues to offset the substantial initial costs which their infrastructure upgrading often entails. Moreover, as noted by Engman, et al. (2007:5), "Investment in infrastructure and generous tax incentives have not necessarily led to an increase in FDI [in EPZs]. Even where FDI has been forthcoming, value added has often been low, and backward linkages and technology transfers quite limited".

EPZs are most likely to be beneficial where they are linked to the domestic economy rather than operating as enclaves.

EPZs are most likely to be beneficial where they are linked to the domestic economy rather than operating as enclaves, and when they are oriented towards the use of domestically produced inputs. Even in this context, however, consideration of whether to establish an EPZ should be based on a comprehensive cost-benefit analysis, with a realistic appraisal of the infrastructural investment required and its financial cost, the amount and nature of FDI likely to be attracted, and the development benefits relative to alternative development-related uses of the funds required. In view of the considerable uncertainties involved, initial costs should be kept to a minimum.

EPZs do not necessarily increase FDI, value added is often low and technology transfer limited.

Incentives and other policies towards EPZs should be limited and time-bound, and should be kept under review and modified as necessary in light of the evolving needs and circumstances of the national economy and investors. Relaxation of, or exemption from, labour and other regulatory standards in EPZs has been found to be detrimental. More important than either of these is the need to provide a competitive international business environment (Engman et al., 2007).

Incentives and other policies towards EPZs should be limited and time-bound.

e. Formalization and enterprise upgrading: Size matters

A key aspect of the transformation process is a progressive reduction in the scale of the informal sector relative to the formal economy. The informal sector accounts for between 40 and 82 per cent of non-agricultural employment in LDCs (UNCTAD, 2013: 76). Much of this comprises "default" activities: very low-productivity and low-income activities (e.g. petty trading, artisanal mining, rubbish-picking) in which people engage as a necessity, in the absence of social support mechanisms. As formal employment opportunities and/or social protection increase, labour will be drawn away from such occupations, allowing this part of the informal sector to decline over the course of development.

As well as low-productivity activities, the informal sector includes a wide range of microentrepreneurs who are more positively motivated by economic opportunities.

However, alongside such "survivors", the informal sector also includes a wide range of microentrepreneurs, who are more positively motivated by economic opportunities but face constraints to, or are discouraged from, becoming part of the formal economy (Bacchetta et al., 2009; Cling et al., 2010; Grimm et al., 2012). Some such enterprises may have considerable growth potential once relieved of the disadvantages of being outside the formal sector (e.g. lack of access to credit), resulting in potentially significant economic benefits.[9] Removing such constraints is an important step towards scaling up enterprises to fill the "missing middle" — the absence of medium-sized firms large enough to benefit from substantial economies of scale — characteristic of most LDCs (UNCTAD, 2006, chap. 6).

Formalization would be facilitated by focusing on the more dynamic informal enterprises which are the most constrained by their informal status.

Approaches to formalization are necessarily country-specific, reflecting variations in the nature of the informal sector and the motivations for remaining in it. However, the process would be facilitated by focusing on the more dynamic informal enterprises which are the most constrained by their informal status, as they stand to benefit most from formalization. Their incentive to formalize would be further strengthened by increasing the availability of bank credit for productive investment.

Such enterprises can best be encouraged to enter the formal sector by tipping the balance of costs and benefits in favour of formalization. Options include making support to new and informal enterprises conditional on formalization within a specified period, and reducing the costs and simplifying the process of formalization. Where tax avoidance is an important motivation, consideration could also be given to offering a tax holiday for newly registered firms. If informal enterprises are already not paying taxes, revenue losses during the tax holiday will be limited, while fiscal gains when it ends may be substantial. All these measures would also strengthen the incentives for the creation of new firms in the formal sector.

Options for promoting formalization include making support to new and informal enterprises conditional on formalization, reducing costs and simplifying processes.

4. Technology

a. Technology transfer and indigenous R&D

To invest in increasing productivity or in new sectors, firms need the opportunity and the capacity to use technologies and adapt them to local conditions and their particular needs. Thus technology policies are critical, as is the availability of the necessary human capital.

R&D activities may benefit productivity as much by increasing firms' capacities to absorb transferred technologies as through their direct effects on innovation.

While FDI can be a source of technology transfer, harnessing its benefits depends on the capacity of indigenous firms to absorb imported technologies and use them effectively, which requires an adequate level of indigenous technological capacity. This suggests an important role for indigenous R&D, both by firms and in universities and research institutions, as a source of technological progress (Fu et al., 2011). R&D activities may benefit productivity as much by increasing firms' capacities to absorb transferred technologies as through their direct effects on innovation (Kinoshita, 2000).

LDCs need to promote technological research and innovation oriented towards structural transformation and diversification according to their particular circumstances.

While the development of technologies better tailored to local conditions could, in principle, be promoted by in-country R&D by foreign-owned companies, this is likely to be limited in LDCs, and is not an effective substitute for indigenous R&D.[10] Beyond production technologies, R&D in other areas may also be able to play a role in developing new commercial activities in LDCs, for example in commercializing medicinal herbs, either as dietary supplements or, where appropriate, as pharmaceuticals.

There is thus a need for LDCs actively to promote technological research and innovation oriented towards structural transformation and diversification according to their particular circumstances, and to invest in the human resources required. Direct public funding can play an important role, particularly if focused on R&D with potentially important economic benefits that would not otherwise take place, and it may be particularly useful in promoting collaborative research between private firms and public research bodies, as in Chile.

Options for supporting human resource development in technology include orienting funding for tertiary education towards science and technology, and providing scholarships.

Options for supporting human resource development in technology include, for example, orienting funding for tertiary education towards science and technology, providing incentives such as scholarships or differential fees for students in relevant disciplines, adapting curricula or developing course components focused on innovation in relevant university courses, and establishing intermediate technology innovation units in universities, with links to community and small business organizations.

b. Information and communication technologies

Access to information and communication technologies (ICTs) varies very widely among LDCs. For instance, mobile telephone subscriptions per 100

people ranged between 25 and 75 in most LDCs in 2013, with 5.6 in Eritrea and 134 in Cambodia. The ratio has increased extremely rapidly over the past decade in all LDCs, in most cases by a factor of between 10 and 100. Access to the Internet is both lower and has increased more slowly, with typically between 2 and 20 users per 100 people in 2013, increasing by a factor of between 3 and 40 since 2003 in most cases.[11]

Where mobile phone coverage is relatively high, it can facilitate financial inclusion, agricultural extension and technology adoption, and access to market information.

Since developments in ICTs and their greater use could contribute to structural transformation, they cannot be ignored by LDCs. Where mobile phone coverage is relatively high, there are potentially significant benefits for development, for example through financial inclusion, agricultural extension and technology adoption, and access to market information (Aker and Mbiti, 2010). Recent research suggests that mobile telephone penetration may have some positive effect on growth in low-income African countries,[12] and there is the potential for substantial benefits from internet access when usage reaches a critical mass (Chavula, 2013). Internet access may be particularly important in providing a wealth of information on production methods, especially in relatively small-scale, low- and medium-technology activities, supporting both the upgrading of existing production and diversification into new activities.

Internet access can provide a wealth of information on production methods, especially in relatively small-scale, low- and medium-technology activities.

The case of mobile phone apps demonstrates the potential to increase the development benefits of ICTs through adaptation to local circumstances. This adaptation process could also contribute to economic transformation. For example, locally developed apps in ODCs such as Kenya have provided valuable business opportunities for a new generation of entrepreneurs, with the potential to create a new and dynamic business sector. Vertical interventions may thus be appropriate to foster the development of such activities in LDCs.

In the long term, global electronic communications may also create potential opportunities for services exports. Possibilities which might merit investigation include, for example, the potential for outsourcing a growing range of high-value services, creative and cultural exports (e.g. music and video) via Internet downloading, transforming a "brain drain" into a system of global distance-working, or exploring the potential for "virtual" tourism. Where 3D printing can be used to produce spare parts for capital equipment, this could offer a means of averting the disruption to production resulting from delays in acquiring them and the high costs of express delivery.

Landlocked countries and the more remote island LDCs need to exploit to the full any opportunities arising from the emerging "weightless economy".

For landlocked countries and the more remote island LDCs, uncertainties about the potential effects on transportation costs of international measures to tackle climate change suggest a particular need to exploit to the full any opportunities arising from the emerging "weightless economy". Rwanda and Chad, for example, are already investing in G4 Internet connectivity.

5. Rural development

Rural development is critical both for structural transformation and for poverty eradication.

a. Upgrading agriculture

Since the majority of the population in most LDCs lives in rural areas, rural development is critical both for structural transformation and for poverty eradication. Agricultural upgrading is an important dimension of such development. However, generalization across countries is particularly problematic, as there are large differences, both between and within countries, for example in agro-ecological conditions, cropping patterns, land tenure systems and ownership patterns. Thus the recommendation of the InterAcademy Council (2004:xviii) for "numerous 'rainbow evolutions'… rather than a single Green Revolution" in sub-Saharan Africa seems equally applicable to LDCs.

Nonetheless, some common factors may be identified. Above all, chapter 4 of this Report highlights the critical role of increasing agricultural productivity in structural transformation. Since yields vary widely within many LDCs, a first step is to level up productivity to current best-practice levels: yields on demonstration plots can be two to five times the local average (Africa Progress Panel, 2014: 59). Additional improvements can be achieved by advancing the technological frontier through the further development of practices and technologies in line with (changing) local circumstances and climatic and soil conditions. Incomes can also be increased by shifting towards higher value crops, supplemented by small livestock farming, to respond to changes in demand associated with poverty reduction.

In addition to providing adequate funding for R&D in agriculture and ensuring access to inputs, LDCs need to restore and strengthen agricultural extension services.

In addition to providing adequate funding for R&D in agriculture and ensuring access to inputs, this highlights the need for LDCs to restore, strengthen and improve agricultural extension services. This depends in large measure on a proactive public sector role (IEG, 2007: 59–62). Regional cooperation can also play a key role, both by increasing yields towards regional best-practice levels (Nin-Pratt et al., 2009) and by strengthening agricultural R&D (as exemplified by the International Rice Research Institute in South-East Asia).

Investment in irrigation, drainage, transport and energy could also substantially increase agricultural productivity.

In many LDCs, investment in irrigation, drainage, transport and energy could also substantially increase productivity. As surplus labour is shed from agriculture, the potential for mechanization of agricultural production may also ultimately increase. Since ownership of larger equipment is unlikely to be viable (or affordable) for individual small farmers, this may require fostering local rental markets or collective ownership through cooperatives.

b. Complementarity of agriculture and non-farm rural incomes

Poverty reduction allows both increased agricultural productivity and diversification into non-staple crops.

Raising agricultural productivity increases output while displacing labour. In most LDCs, small and slow-growing markets mean that rapidly increasing agricultural output would reduce prices, offsetting the benefits to producers (Ellis, 2009). Thus higher demand for food, as well as labour, is essential for increasing farm incomes.

Poverty reduction is a very effective means of achieving this, disproportionately increasing demand for both staple and higher value foods, thus allowing both increased agricultural productivity and diversification into non-staple crops. However, if this increase in demand were to occur without an increase in agricultural production, food prices would increase, giving rise to strong inflationary pressure and thus reducing competitiveness.

Agricultural upgrading and the generation of non-farm employment and incomes through rural economic diversification are critically interdependent.

Thus, increasing incomes without improved agricultural productivity generates inflation and/or increases imports; but increasing agricultural productivity without increasing incomes in other sectors limits the benefits to agricultural producers (Diao et al., 2007). Ideally, therefore, agricultural productivity and non-agricultural incomes should rise in parallel, so that demand growth balances supply growth.

Increasing demand for food and labour is generally seen as arising from urban industrialization and rural-urban migration. However, the very large proportion of the population in rural areas and relatively rapid population growth in most LDCs, coupled with limits to the sustainable rate of urbanization, suggest that this alone will be insufficient to eradicate poverty by 2030.[13] Since cities cannot absorb all the labour displaced from agriculture, it will be necessary to increase non-agricultural incomes in rural areas.

Thus, agricultural upgrading and the generation of non-farm employment and incomes through rural economic diversification are critically interdependent

in LDCs (chart 36).[14] Recent cross-country evidence confirms that growth is more inclusive and reduces poverty more rapidly when based on movement of labour from agriculture to rural off-farm employment and to smaller towns than when it is based on agglomeration in large cities (Christiaensen and Todo, 2014).

As well as limiting the social and environmental impacts of urbanization by absorbing surplus agricultural labour locally, rural economic diversification can provide resources for agricultural investment and increased input use by allowing farm households to generate off-farm incomes. Development of local food processing and packaging industries and transport services, in particular, can also support agricultural upgrading by increasing access to urban and export markets.

As well as limiting the social and environmental impacts of urbanization, rural economic diversification can provide resources for agricultural investment and increased input use.

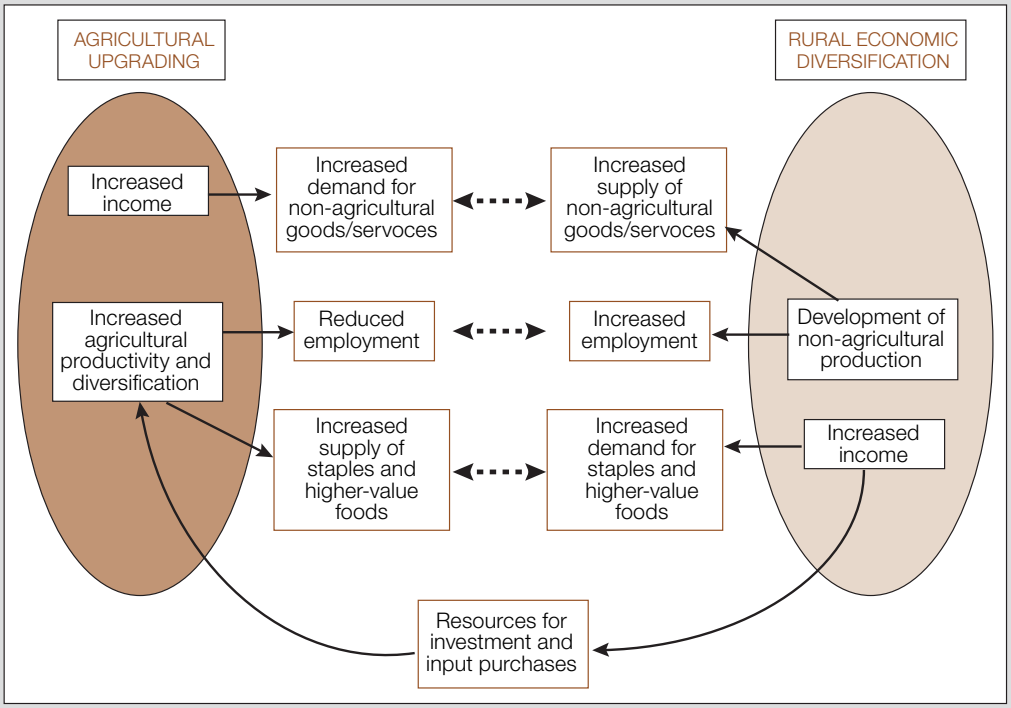
Thus, the diversification of rural economies to develop non-farm income-earning activities should be a high priority in structural transformation in LDCs, particularly in the post-2015 context. For this reason, this Report proposes the establishment of an international support measure to promote non-agricultural entrepreneurship among women in rural areas in LDCs (Epilogue of this Report).

c. Electrification as a driver of rural economic diversification

Rural electrification is by no means the only area in which rural areas are disadvantaged. However, it is an essential component, and a particularly important driver, of rural economic diversification, and its potential is greatly increased by renewable energy technologies (box 5 below).

Rural electrification is a particularly important driver of rural economic diversification.

Chart 36. Complementarity of agricultural upgrading and rural economic diversification



Source: UNCTAD secretariat.

This will not happen automatically, relying on market forces alone. Indeed, it has been observed that initial improvements in the performance of utilities following privatization in developing countries have not been sustained, and have been followed by significant declines in investment and increased indebtedness (Cook and Uchida, 2008). Neither have privatized utilities or public-private partnerships developed rural electrification on the anticipated scale, while small-scale local providers have filled the gap only to a very limited extent (Cook, 2011).

The development impact of infrastructural investment in rural areas can be increased by using labour-intensive methods and local procurement to increase income generation.

China's success in increasing access to electricity from 61 per cent in the late 1970s to more than 99 per cent by 2010, which helped to drive rapid growth of rural industry and employment, offers important lessons.[15] In contrast with most other developing countries, China adopted an experimental, bottom-up approach, centred on local resources but with active support from the central Government. Local pilot projects were conducted, and then extended to other rural areas, incorporating the lessons learned. Rather than extending the existing grid, village- or community-level grids were established, upgraded and connected to regional networks. This highlights the importance of combining strong government commitment and support, particularly in finance and design, with active local participation and capacity-building, and learning from experimentation (Bhattacharyya and Ohiare, 2012).

d. Sequencing investment in rural infrastructure

Rural infrastructure development in LDCs should begin with investment in sectors which most increase productive potential, but which have a limited effect on local aggregate demand.

The infrastructural investment needed for human development and economic transformation in rural areas of LDCs is considerable, and much greater than in urban areas. It encompasses construction of schools and health facilities, water and electricity provision, increased and improved transport infrastructure and often irrigation and/or drainage. By using labour-intensive methods and local procurement to increase income generation, such investment can help to kick-start rural development by creating the demand necessary to provide incentives for investment in the development of non-farm enterprises and agricultural upgrading.

Feeder roads to local market towns are particularly important, and can contribute significantly to consumption growth and poverty reduction (Dercon and Hoddinott, 2005; Dercon et al., 2009). There may be some initial benefits to fledgling non-farm enterprises from the "natural protection" arising from poor transport links. However, as such enterprises grow, and they seek to expand to wider (urban and export) markets, limited transport connections will become disadvantageous as market fragmentation will limit the potential for economies of scale.

In a second phase, local economies could respond effectively to the increased demand arising from investment with a greater employment effect.

The sequencing of infrastructural investment is thus important. If demand is increased before the establishment of essential conditions for investment in increased productive capacity, the primary effect will be to boost imports and/or inflation. This suggests that rural infrastructure development in LDCs should begin with investment in sectors which most increase productive potential, but which have a limited effect on local aggregate demand (e.g. electrification and ICTs). This would create fertile ground for a second phase, in which local economies could respond effectively to the increased demand arising from investment with a greater employment effect (e.g. transport infrastructure, especially if the required works use labour-intensive techniques). Ideally, the ability of farms and non-farm enterprises to compete and exploit economies of scale would grow in parallel with the scope of the market.

Box 5. Rural electrification

Limited access to electricity is a major obstacle to rural development in many LDCs. In Asian LDCs, overall access to electricity ranges from 30 per cent of the population to 78 per cent. In all but two LDCs in the Africa plus Haiti group for which data are available, the range is between 7 per cent and 32 per cent.[a] Access in rural areas is generally much lower. Even in Bhutan, where electricity is a major export, much of the rural population lacks access to electricity (Dorji et al., 2012). And where power is available, outages are often a serious problem, disrupting production or imposing additional costs for the purchase and operation of generators (Reinikka and Svensson, 2002; Adenikinju, 2005). In some African LDCs,[b] power outages may occur on more than 120 days per year (Ramachandran, 2008).

Many of the obstacles to rural electrification arise directly or indirectly from remoteness, low population density and poverty. Large distances from the existing grid increase the cost of connection to it. Geographical dispersion of the population and low per capita demand increase the area that needs to be covered by a power station of a given scale. Hence, either economies of scale are lost, or electricity must be transmitted over much longer distances, entailing much greater transmission losses, investment and maintenance costs. The resulting high costs, with very limited purchasing power, render conventional centralized power generation unviable.

These considerations apply much less to renewable energy technologies, which have much smaller economies of scale. While they struggle to compete in urban settings and in developed countries, they are much more competitive in remote, sparsely inhabited and under-resourced rural areas. Solar power, micro-hydro and wind turbines can be used at the community level, or even at the household/firm level, and provide a substantially lower cost option than grid connection in many rural contexts (Szabó et al., 2011; Deichmann et al., 2011; Chakrabarti and Chakrabarti, 2002; Nguyen, 2007).

While diesel generators can play a similar role, their recurrent costs (for fuel) are very high. Although they are currently cost-competitive in rural areas in some LDCs, this is often due to fuel subsidies (Szabó et al., 2011). Moreover, while fossil fuel costs are likely to rise further as a result of efforts to tackle climate change, renewable energy equipment can be expected to become cheaper over time owing to technological advances, learning effects and economies of scale, tipping the balance progressively further towards renewables (Deichmann et al., 2011).

Electrification has the potential to serve as an engine of rural development and economic transformation. As with infrastructure more generally, electricity is particularly important for growth at lower income levels (Romp and De Haan, 2007). Manufacturing firms in low-income countries in sub-Saharan Africa, for example, are particularly affected by poor provision of electricity (Escribano et al., 2009). Improved access to it could substantially increase the scope for rural non-agricultural enterprises, and the potential for investments in equipment to increase labour productivity. It also supports agricultural mechanization by allowing the provision of essential services, such as welding, and allows farmers to refrigerate perishable produce (Kirubi et al., 2009), thereby reducing post-harvest losses and raising farmers' incomes by averting the need to sell soon after the harvest, when prices are at their lowest.[c]

Rural electrification can also play a direct role across the whole spectrum of the planned SDGs. It is a critical factor in fuel switching, allowing households to move from highly polluting and carbon-inefficient traditional fuels such as fuelwood, charcoal and dung, which often cause serious health problems through indoor air pollution, particularly for women and children (Heltberg, 2004; Lewis and Pattanayak, 2012). It improves education by allowing pupils to study later in the evening (Gustavsson, 2007; Jacobson, 2007), improves the operation of health facilities, and removes a major obstacle to recruiting and retaining health professionals and teachers in rural areas (IEG, 2008). Electric pumps can help widen access to clean water (Kirubi et al., 2009); and, together with the greater potential for mechanical processing of foods (IEG, 2008), this can greatly reduce the burden of domestic work performed by women and girls.

a While data are available for all the Asian LDCs except Bhutan, they are not available for any of the island LDCs, or for around half of the African LDCs. The two LDCs in the Africa plus Haiti group with greater access are Angola (38 per cent) and Senegal (56 per cent).

b For example, the Democratic Republic of the Congo, the Gambia, Guinea, Uganda, Rwanda and the United Republic of Tanzania.

c In Ethiopia, rural electrification has allowed an increase of nearly 50 per cent in working hours, increasing value-added per worker by more than 40 per cent (Ayele et al., 2009). Among low-income ODCs, evidence from Zimbabwe indicates strong effects on the number and scope of SMEs and machinery use, increasing employment by 270 per cent (Mapako and Prasad, 2007), while off-grid rural electrification in Kenya has been observed to increase productivity by 100–200 per cent, simultaneously lowering output prices and increasing producers' incomes by 20–80 per cent (Kirubi et al., 2009).

E. Macroeconomic policies

The structural transformation necessary for LDCs to achieve the SDGs sustainably requires macroeconomic policies which promote investment, technological change and demand growth.

The structural transformation necessary for LDCs to achieve the SDGs sustainably requires macroeconomic policies which promote both investment — which spurs technological change in the production sphere — and demand growth to provide opportunities for profitable productive investment and to allow labour productivity growth along with increasing employment. This suggests that the overall macroeconomic policy stance in LDCs should be relatively expansionary. While due consideration should be given to financial sustainability and price stability, it is important to avoid being unnecessarily restrictive in this regard.

A monetary policy regime that focuses exclusively on limiting inflation is unlikely to be optimal in terms of real economy outcomes.

A monetary policy regime that focuses exclusively on limiting inflation is unlikely to be optimal in terms of real economy outcomes (e.g. growth, investment, employment and poverty alleviation), particularly if the inflation target is set too low. The experience of the four countries considered in chapter 5 of this Report suggests that a moderate rate of inflation is not incompatible with rapid economic transformation, particularly in its earlier stages: consumer price inflation in China, for example, averaged 13 per cent per year between 1987 and 1995, while the average rate in Viet Nam since 2003 has been 10 per cent.

Monetary policy should not unduly restrict the availability of credit for productive investment oriented towards structural transformation.

It is important that monetary policy should not unduly restrict the availability of credit for productive investment oriented towards structural transformation, and particularly for innovative producers starting up or seeking to expand their production. By reorienting credit (e.g. through regulatory measures and development banks) from consumption and residential construction towards productive investment, its effect on demand can be reduced and that on supply increased, limiting, if not neutralizing, any inflationary effect.

Public expenditure constraints can be eased by increasing and diversifying public revenue sources.

Public expenditure constraints can be further eased by increasing and diversifying public revenue sources, as discussed in section C4 of this chapter. To maintain financial sustainability, the public sector deficit as a share of GDP should not, over the long term, exceed: (i) the economic growth rate; or (ii) public investment with a rate of return greater than the interest rate.

Uncertainties associated with volatile demand growth are another potential threat to investment. Deficit targets should therefore allow flexibility for countercyclical policies in economic downturns, particularly in countries heavily dependent on commodity exports. Some tax and expenditure policies – for example progressive taxation, welfare and social protection policies – can serve as automatic stabilizers.

In commodity-dependent LDCs, resource rents can perform a countercyclical role.

In commodity-dependent LDCs, resource rents can also perform a countercyclical role, by accumulating resources in stabilization funds when prices are high and depleting them when prices are low – an approach adopted by Chile following the 2007 financial crisis (UNCTAD, 2010). However, this depends on stabilization funds being initiated when prices are relatively high. Where income from extractive industries is geographically skewed, resource rents can also provide a means of redistributing the benefits more equitably.

As noted above, limited public revenues and large infrastructural investment requirements in LDCs imply the need for substantially greater ODA; and its development impact can be increased by using labour-intensive construction methods. The resulting net inflow of foreign exchange could be used for increased imports of capital goods.

While the rise in aggregate demand associated with this approach is sometimes seen as causing inflationary pressures,[16] and thus reducing

competitiveness (IMF, 2005), such concerns are likely to be misplaced in the context of LDCs pursuing structural transformation in the post-2015 context, for three reasons. First, such exchange rate effects are temporary rather than permanent, as the increase in imports associated with higher ODA is merely delayed, not avoided. As aggregate demand rises, so does the demand for imports of consumer goods, and for capital goods and intermediate goods used in their production, which neutralizes the adverse exchange rate effect over time. The effect of a progressive increase in ODA would be more limited, though stretched over a longer period; and the process would be reversed once ODA began to decline, as may be expected once the infrastructural investment required to meet the SDGs nears completion.

Achieving the SDGs will require considerable efforts by LDC governments, but also commensurate efforts by the international community.

Second, any potential inflationary effect would be reduced to the extent that domestic supply increased to meet the additional demand. Thus, any potential inflationary effect could be minimized by directing increased ODA (and economic policies) towards expanding domestic productive capacity and productivity to match the rise in demand. Equally, any potential effects on competitiveness would be offset, and could even be reversed, by rising productivity in tradable sectors.

Third, competitiveness effects largely arise from exchange rate changes relative to competitors. Since the SDGs imply substantially increased ODA flows, not only to all LDCs but also to most other low-income (and some lower-middle-income) countries, any exchange rate appreciation in one LDC would be at least partly offset by similar effects among its competitors.

Achieving the SDGs will require changes across the whole system of global economic governance to produce an environment that will foster structural transformation in LDCs.

F. International policies and the international development architecture

The planned SDGs represent an extraordinarily and admirably ambitious programme on the part of the global community, and they will be particularly challenging for the LDCs. Achieving them will require considerable efforts by LDC governments, but also commensurate efforts by the international community. Such efforts need to include not only greater ODA, but also changes across the whole system of global economic governance to produce an environment that will foster structural transformation in LDCs, rather than impeding it. As *The Least Developed Countries Report 2010* argued, "for achieving accelerated development and poverty reduction in LDCs, there is need not only for improved international support mechanisms (ISMs) which are specifically targeted at the LDCs but also for a new international development architecture (NIDA) for the LDCs"(UNCTAD, 2010: I). This is more important than ever in the context of the SDGs.

Were donors to fulfil their long-standing commitments to provide ODA to LDCs equivalent to 0.15–0.20 per cent of their GNI, this would approximately double total ODA to LDCs.

1. ODA: Quantity and quality

As noted above, there will have to be considerable public investment if LDCs are to achieve the SDGs and economic transformation. A first step towards filling the funding gap would be for donors to fulfil their long-standing commitments to provide ODA to LDCs equivalent to 0.15–0.20 per cent of their gross national income (GNI). This would approximately double total ODA to LDCs. Restoring the share of economic infrastructure and non-agricultural productive sectors in ODA to their 2000 level would more than double the proportion of ODA to these sectors, implying an increase in the order of 300 per cent in the amounts available for these purposes (chapter 2 of this Report). Meeting the 0.15–0.20

Restoring the share of economic infrastructure and non-agricultural productive sectors in ODA to their 2000 level would more than double the proportion of ODA to these sectors.

per cent target would allow absolute amounts allocated to other sectors to increase simultaneously.

The immediate prospects for ODA are uncertain, as current budgetary pressures continue to limit increases in ODA from traditional donors. However, the post-2015 agenda and the SDGs should further increase political pressure on donors to fulfil their long-standing commitments on ODA, even if these are not formally included as SDG targets. Neither are budgetary constraints an insuperable obstacle. The United Kingdom, for example, met the target of providing 0.7 per cent of its GNI as ODA for the first time in 2013, despite being in the midst of a rigorous austerity programme. The target for ODA to LDCs could, in principle, be met without additional budgetary costs by increasing LDCs' share in total disbursements.

The target for ODA to LDCs could, in principle, be met without additional budgetary costs by increasing LDCs' share in total disbursements.

Financial cooperation from dynamic developing countries could also help to fill the gap. As discussed earlier (section C of chapter 2 of this Report), such support to LDCs has grown rapidly in recent years, albeit from a low base. If such growth continues, it could make a modest contribution to filling the shortfall in ODA from traditional donors.

A progressive build-up of ODA to the target level over several years may in any case be more beneficial, allowing absorption and productive capacities in LDCs to increase. As discussed above, sequencing is also important, with significant benefits to rural diversification from focusing ODA initially on sectors which impact more on productive capacities than on demand, and later on sectors which increase demand more than productive capacities. Strengthening tax administration and collection capabilities is also an early priority.

A progressive build-up of ODA to the target level over several years may be more beneficial, allowing absorption and productive capacities in LDCs to increase.

This highlights the need for ODA to follow and support national development strategies, rather than national strategies being driven by ODA or donor priorities. This has been a clearly stated commitment by donor countries since the 2005 Paris Declaration on Aid Effectiveness, in which donors committed to "respect partner country leadership and help strengthen their capacity to exercise it", and to "base their overall support — country strategies, policy dialogues and development co-operation programmes — on partners' national development strategies" (OECD, 2005, paras 14 and 15).

ODA needs to follow and support national development strategies, rather than national strategies being driven by ODA or donor priorities.

While this principle has been restated in subsequent agreements on aid effectiveness (OECD, 2008, para 12; OECD, 2011, para 11a), progress has been very limited. There is no indicator within the aid effectiveness framework to assess the alignment of ODA with national development strategies, and evidence of any improvement is very limited and largely based on self-reporting by donors (OECD, 2012). Even by the much weaker criterion of the proportion of funding provided through modalities associated with country results frameworks, performance by donors has varied considerably, bilateral donors performing particularly weakly; and project support rarely even uses recipient countries' budget and planning systems.[17] National accountability structures and procurement processes are particularly underused (Global Partnership for Effective Development Co-operation, 2014: 37–40; 45–49).

Improved donor coordination and greater stability and predictability of ODA disbursements would greatly improve the environment for development.

Among other donor commitments on aid effectiveness, improved donor coordination within the framework of national strategies and greater stability and predictability of ODA disbursements would greatly improve the environment for development. Streamlining aid to limit administrative burdens on recipient countries with limited capacity could contribute significantly to policymaking and administration in other areas, by freeing up scarce human resources. Further untying of aid would also be highly beneficial, not only reducing costs (by widening choice and increasing competition among suppliers), but also increasing the potential for local, regional and triangular procurement.

Even if donors feel unable to fulfil their long-standing commitments on the amounts of ODA due to fiscal constraints, this should be reflected in accelerated progress towards fulfilling their commitments on aid effectiveness.

Any shortfall from ODA targets should be matched by accelerated progress on aid effectiveness.

2. International finance

As noted in chapter 2 of this Report, one LDC remains in debt distress and ten others are at high risk of debt distress. For these countries, a definitive solution to their debt problems is an urgent priority. For other LDCs, it is essential to avoid falling into debt distress in the future.

More generally, there is a need for a more effective system to prevent debt and financial crises and for a more development-friendly response to such crises when they occur. As discussed in the previous section, if sufficient ODA is not forthcoming to meet LDCs' considerable needs for infrastructural investment to meet the planned SDGs, constraints on their mobilization of public revenues may lead to increased external borrowing, with the risk of renewed debt crises. This could derail the SDG process entirely, as demonstrated by the serious impact of debt problems and associated adjustment programmes on economic and human development throughout the 1980s and 1990s, most notably in African LDCs. Reform of the international financial system to avoid a repetition of this experience is thus a high priority.

There is a need for a more effective system to prevent debt and financial crises and for a more development-friendly response to such crises when they occur.

Compensatory financing for economic shocks, on concessional terms for LDCs, could also play an important role in reducing harmful volatility in commodity-dependent LDCs. While fuel and mineral exporters may be able to achieve a similar goal through stabilization funds using resource rents, the potential is more limited for countries that depend on exports of agricultural goods, and where shocks arise from price increases for major imports such as food and fuels.

Compensatory financing for economic shocks, on concessional terms, could also play an important role in reducing harmful volatility in commodity-dependent LDCs.

A strengthening of the global governance of taxation could contribute significantly to increasing the ability of LDCs (and other countries) to generate public revenues. As the *Trade and Development Report 2014* (UNCTAD, 2014a: 192-193) observes,

> the lack of fiscal space and the constraints on expanding it in many low-income countries are among the most serious obstacles to escaping the underdevelopment trap. This general need for maintaining or expanding fiscal space faces particular challenges in the increasingly globalized economy…. The international tax architecture has failed so far to properly adapt to this reality.

The International Monetary Fund (IMF, 2013: vii) has taken a similar view:

> Recognition that the international tax framework is broken is long overdue. Though the amount is hard to quantify, significant revenue can also be gained from reforming it. This is particularly important for developing countries, given their greater reliance on corporate taxation, with revenue from this taxation often coming from a handful of multinationals.

A strengthening of the global governance of taxation could contribute significantly to increasing the ability of LDCs to generate public revenues.

Some efforts are under way at the international level to tackle financial secrecy regimes and the erosion of the corporate tax base through transfer price manipulation by transnational corporations to shift their profits into lower tax jurisdictions (OECD, 2013). However, the main forum for such efforts is the OECD rather than a global institution. It is therefore important to ensure that LDCs' interests are taken fully into account to ensure that they benefit from any changes (ECOSOC, 2014).

Measures to promote investments by diaspora could have an effect on structural transformation disproportionate to their potential scale.

The potential advantages of investments by LDC diasporas (as discussed in section C3 of this chapter) suggest that measures to promote such investments could have an effect on structural transformation disproportionate to their potential scale. Such measures include, for example, the Investing in Diaspora Knowledge scheme proposed in *The Least Developed Countries Report 2012*, and matching funding from ODA and national governments for diaspora investments in infrastructure and public goods (UNCTAD, 2012: 145, box 14; 147–150).

3. International trade

Structural transformation is critically dependent on international trade rules, particularly to facilitate the development of new economic activities and non-traditional exports.

Structural transformation is critically dependent on international trade rules, particularly to facilitate the development of new economic activities and non-traditional exports. The LDCs' agenda with respect to WTO issues is set out in the Dar-es-Salaam Declaration of LDC Trade Ministers (WTO, 2009). Priorities include providing support for effective utilization of duty-free and quota-free (DFQF) access to developed-country markets, and an appropriate relaxation of rules of origin to allow LDCs to exploit DFQF access more fully and effectively. DFQF access could also usefully be extended to LDC exports by other developing countries that are in a position to do so.

Increased technical assistance and capacity-building are also a priority, for example for strengthening LDCs' capacities to conform to trading partners' standards.

In practice, further erosion of trade preferences seems inevitable as trade liberalization progresses globally. Such effects should be taken fully into account in the design of future multilateral trade agreements affecting products of export interest to LDCs, such as tropical agricultural produce and garments. Increased technical assistance and capacity-building are also a priority, for example for strengthening LDCs' capacities to conform to standards set by major markets in relation to sanitary and phytosanitary measures and technical barriers to trade, and ensuring that such measures are not used as hidden trade restrictions.

It is important to ensure that additional resources are provided to support EIF-related projects at the domestic level in order to make the EIF an effective tool for export promotion and structural transformation.

Greater and more predictable support to LDCs in the form of Aid for Trade is also needed within and beyond the Enhanced Integrated Framework (EIF). After a slow start, the EIF is beginning to have a meaningful impact in assisting LDCs to mainstream trade in their development strategies and to build their productive capacities. It is important to ensure that additional resources are provided to support EIF-related projects at the domestic level in order to make the EIF an effective tool for export promotion and structural transformation.

Like other ODA, Aid for Trade should be firmly based on the principle of country ownership. It should also support export diversification by facilitating, inter alia, the development of supply-side capacity, technological upgrading and trade-related infrastructure with a view to directly supporting the development of LDCs' productive capacities.

LDC obligations in any future WTO agreements should be tailored to their needs for achieving the planned SDGs sustainably through structural transformation.

Successful economic transformation also depends on making special and differential treatment more effective, beyond merely allowing longer implementation periods to LDCs for obligations under WTO agreements. LDC obligations in any future WTO agreements should be tailored to their particular circumstances and their needs for achieving the planned SDGs sustainably through structural transformation. There should also be an unequivocal commitment to allowing LDCs the maximum flexibility available under existing and any future WTO agreements. In addition, the WTO accession process for LDCs should be accelerated and facilitated, and should not include conditions that extend beyond the obligations of existing LDC members.

In the field of technology, developed countries should expeditiously fulfil their obligation to promote technology transfer to LDCs, as provided under Article

66.2 of the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). Full and expeditious implementation of the Development Agenda of the World Intellectual Property Organization could also help LDCs to derive greater benefit from their intellectual property. Such steps would bring the global intellectual property regime closer to the objective of the TRIPS Agreement (stated in its Article 7), to ensure that intellectual property rights "contribute to… the transfer and dissemination of technology… in a manner conducive to social and economic welfare".

Developed countries should expeditiously fulfil their obligation to promote technology transfer to LDCs.

Finally, the international trade architecture is increasingly complicated by the web of bilateral and regional trade and investment agreements which has become increasingly complex in recent years. Many of those agreements impose obligations on LDCs which go far beyond their multilateral commitments (UNCTAD, 2014a). A strong case can be made for a comprehensive review of existing agreements to which LDCs are parties, within the framework of the post-2015 agenda. Such a review should identify any obligations which may constrain effective policies directed towards achievement of the SDGs, or the structural transformation this requires, with a view to modifying such provisions as necessary.

A strong case can be made for a comprehensive review of existing bilateral and regional trade and investment agreements to which LDCs are parties, within the framework of the post-2015 agenda.

4. Tackling climate change effectively and equitably

Effective global action for climate change mitigation is urgently needed. Nowhere is this more important than in the LDCs, in light of their particular exposure and vulnerability to the impacts of global warming and the limited resources available to them for adaptation (IPCC, 2014). As discussed in chapter 3 of this Report (box 3), this will require a major reduction in global carbon emissions; and the means of achieving this reduction may have important implications for the international economic environment for LDCs.

While development strategies should reflect the need to reduce global carbon emissions, it is generally recognized that LDCs' emissions should not be limited in such a way as to impede their development. This will be essential if LDCs are to achieve the planned SDGs.

It is important to take account of the potential secondary effects of global climate policies on LDCs' development prospects as a result of their impacts on air travel, air freight and fuel costs for surface transportation.

Beyond this, it is important to take account of the potential secondary effects of global climate policies on LDCs' development prospects as a result of their impacts on key global markets such as fossil fuels, air travel (affecting tourism) and air freight (affecting some horticultural exports), and on fuel costs for surface transportation (particularly affecting landlocked countries and those located furthest from major markets).

International measures should be designed in such a way as to minimize adverse climate change impacts on LDCs.

Some impacts in these areas seem inevitable if any global climate change mitigation regime is to be effective. However, to the extent possible, international measures should be designed in such a way as to minimize adverse impacts on LDCs. Any impacts that may be unavoidable should be carefully evaluated and taken into account in development strategies, and compensation provided that is additional to ODA and to support for climate change adaptation. It would be appropriate for such support to focus on providing the resources needed for diversification of the economy away from the sectors affected. This should include funds for productive domestic investment, and encompass changes in trade regimes to facilitate the development of new exports from the affected countries as well as financial support.

Such impacts should be compensated with changes to trade regimes favour new exports, as well as financially.

Notes

1 The average cost of sending remittances to LDCs is 11.1 per cent, compared with 7.3 per cent to ODCs, or more than 50 per cent higher. (UNCTAD secretariat calculations based on data from the World Bank, *Remittance Prices Worldwide* database, accessed September 2014).

2 See section F2 of this chapter.

3 The exceptions are Equatorial Guinea, Angola, Kiribati and Lesotho.

4 While resource rents in Angola and Equatorial Guinea have been sufficient to avoid aid dependence, very few, if any, other LDCs are likely to be able to replicate this in the near future.

5 This is a medium-term goal of the African Union's Africa Mining Vision (African Union, 2009).

6 Based on data from the World Bank, *World Development Indicators* database (accessed September 2014).

7 As well as the establishment of new industries, Article XVIII also encompasses "the establishment of a new branch of production in an existing industry", "the substantial transformation of an existing industry", "the substantial expansion of an existing industry supplying a relatively small proportion of the domestic demand" and "the reconstruction of an industry destroyed or substantially damaged as a result of hostilities or natural disasters" (WTO, 2012, Notes to Article XVIII, paras 1-2, note 3).

8 While the EPZ in Mauritius contributed to narrowing gender differentials in employment and wages over time, this would appear to depend on conditions which are unlikely to be replicated in most LDCs: relatively full employment of male workers; an EPZ of a sufficient scale relative to the overall economy to absorb enough of the available female labour force to drive up their wages substantially; and competitiveness strong enough not to be eroded by such wage increases.

9 A recent field experiment in Sri Lanka, for example, found that formalization had very little effect on the profits of most informal enterprises, but extremely large positive effects on a handful of firms, demonstrating their potential for dynamic growth (Mel et al., 2013).

10 Even in China, R&D by foreign-owned firms has had a significantly *negative* effect on technical change in local companies, reflecting competition for limited specialised human resources and limited linkages between foreign and local firms (Fu and Gong, 2011).

11 Based on data from World Bank, *World Development Indicators* database (accessed September 2014).

12 All but four of the countries included in the low-income category in this study are LDCs.

13 Even in China, the rural population has fallen only from 81 per cent to 47 per cent in the past 34 years.

14 The role of non-farm rural employment in LDCs is discussed in UNCTAD (2013: 63-67).

15 Combined with rapid growth in total industrial value added, the rise in the share of the rural economy in China's industrial output from 9 per cent to 36 per between 1978 and 1993 implies a 17-fold increase in rural industrial output in just 15 years.

16 Inflationary pressures can, in principle, be sterilized by selling bonds domestically (where domestic financial markets are sufficiently developed); but even where bond markets exist, this risks crowding out private investment, by encouraging investors to buy government bonds rather than investing in productive capacity.

17 Across developing countries as a whole, only 49 per cent of donor funding went through national public financial management and procurement systems in 2013. There was no improvement between 2010 and 2013; the proportion fell in the majority of countries where data were available for both years; and there has been little correlation between use of national systems and their quality, or between changes in use and changes in quality.

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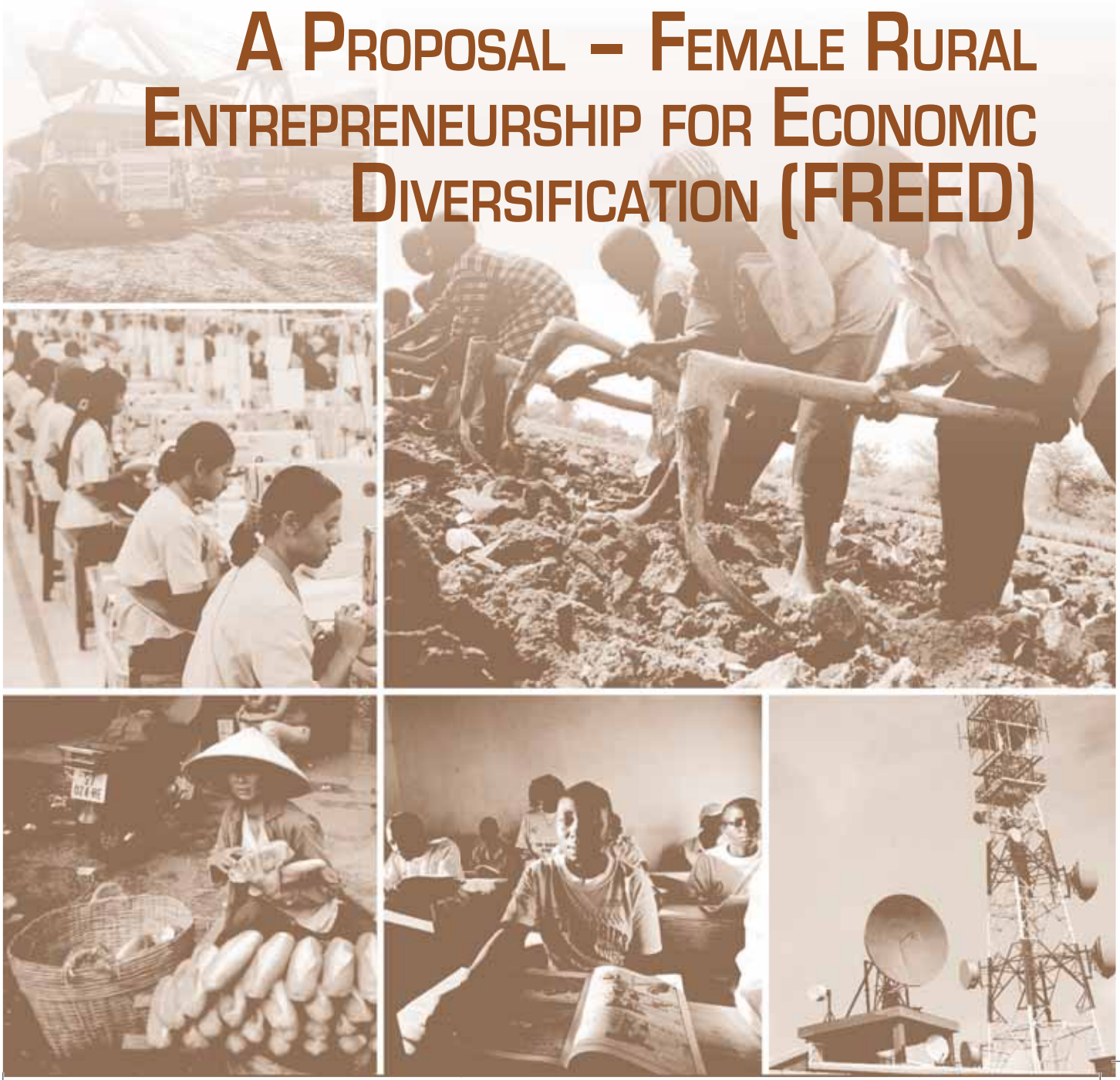
EPILOGUE

International Support Measure: A Proposal – Female Rural Entrepreneurship for Economic Diversification (FREED)



A. Women's entrepreneurship in non-agricultural rural activities, structural transformation and the SDGs

In all but a few LDCs, the majority of the population lives in rural areas.

Breaking the vicious circle of underdevelopment is critical to the structural transformation needed to unlock the productive potential of LDCs. Human and economic development in LDCs are hindered by the vicious circle of underdevelopment, as highlighted in chapter 3 (chart 20) of this Report. Poverty leads to undernutrition, poor health and limited educational attainment, and these undermine labour productivity. Together with the effects of poverty on investment, this limits structural transformation, weakens economic performance and hampers poverty reduction. Reversing this vicious circle, to unleash an upward spiral of human and economic development, is critical to achieving the planned SDGs.

Rural development is critical to this process. As noted in chapter 6 of this Report, in all but a few LDCs, the majority of the population lives in rural areas. Given the rapid overall population growth and limits to the sustainable rate of expansion of cities, this means that the population will still be predominantly rural in 2030. Thus, it will be necessary to increase rural productivity and incomes if poverty is to be eradicated within the time frame set by the SDGs. This is also an important element of the structural transformation of LDC economies.

Rural development depends on exploiting the synergies between agriculture and non-farm activities.

Rural development depends on exploiting the synergies between agriculture and non-farm activities. Due to limits to the rate of urbanization, the surplus labour shed by agriculture as productivity increases will need to be absorbed largely by rural non-farm production. There are important synergies between agricultural upgrading and non-farm production, as each generates both the supply to satisfy the other's increasing demand, and the additional demand needed to stimulate the other's supply growth (section 4b and chart 36 in chapter 6 of this Report). The resulting diversification of rural economies is also a key aspect of structural transformation. The complementary development of agriculture and of non-agricultural activities is thus central to successful and sustainable development in LDCs.

The diversification of rural economies is also a key aspect of structural transformation.

Women in rural areas would benefit disproportionately from progress towards the SDGs. As discussed in chapter 2 of this Report, there are wide gender gaps in education in most LDCs, particularly at the secondary and tertiary levels. Consequently, increasing net enrolment ratios to 100 per cent, as envisaged under the SDGs, would entail bringing more girls into school than boys in most LDCs. Universal primary education would benefit, on average, 20 per cent more girls than boys in LDCs, and universal secondary education would benefit 5 per cent more girls. The difference would be greater in rural areas, where the gender imbalance is generally wider.[1]

Needs for social infrastructure are generally much greater in rural areas, and particularly affect women.

Needs for social infrastructure are generally much greater in rural areas, and particularly affect women due to traditional gender divisions of labour. For example, the considerable time many rural women spend collecting water could be greatly reduced through improved access to safe water supply. Rural electrification helps to accelerate the energy transition as incomes rise, reducing the time women spend gathering traditional fuels, as well as the serious adverse health effects, particularly on women and young children, from burning such fuels in the home. Women's health would also benefit considerably from improvements in maternal health care and increased access to reproductive health care. Increasing the number of health facilities could greatly reduce the time taken by women to access health services themselves and when accompanying children and relatives who require care. Thus improved rural infrastructure would

substantially increase not only the time available for rural women in LDCs to participate in income-generating activities, but also their productive potential in such activities.

Improved rural infrastructure would substantially increase both the time available for rural women in LDCs to participate in income-generating activities and their productive potential in such activities.

However, rural women in many LDCs are the most constrained in translating increased potential into higher production and income. Their role in providing unpaid household and care work, often compounded by cultural norms, which are typically most entrenched in the more traditional rural areas, limits their ability to seek employment opportunities. While labour-intensive infrastructure development is likely to generate additional employment, this is likely to be predominantly in construction-related occupations that are traditionally male-dominated activities. Women are also often disadvantaged in their access to, and control over, land. Since land is an important form of collateral, this limits their access to credit, compounding the effects of cultural norms which restrict their control over household financial resources. Together, these constraints result in very limited opportunities for rural women, both for employment and for other income-generating activities.

Rural women in many LDCs are the most constrained in translating increased potential into higher production and income.

Hence, increasing economic opportunities for rural women is critical to completing the virtuous circle of human and economic development in LDCs. Rural women account for a large proportion of the adult population in LDCs, and for a still greater proportion of the increase in productive potential arising from progress towards the planned SDGs. However, they are the least able to translate this into the higher incomes and the increased production needed to eradicate poverty on a sustainable basis. Unless their economic opportunities are increased, the economic and poverty-reduction benefits of human development will be seriously impaired.

Women can play a key role in rural development, particularly through non-farm income-generating activities.

Women can play a key role in rural development, particularly through non-farm income-generating activities. Traditionally, policies and technical cooperation in rural areas in LDCs have tended to focus on agriculture, as the primary source of income. However, expanding non-farm activities in rural areas would contribute to the expansion of rural aggregate demand and ease pressures for migration to urban areas. Promoting the role of women in such activities would also help to create a new female entrepreneurial class, adding to the dynamism and diversification of rural economies.

Promoting the role of women in non-farm sector activities would also help to create a new female entrepreneurial class.

Collective action is as important as individual entrepreneurship. Where highly gendered cultural traditions are entrenched, it may be easier for rural women to develop enterprises collectively rather than individually. Conversely, where there is already a tradition of women's entrepreneurship, it may be more beneficial to increase collective action and coordination than to promote the emergence of new entrepreneurs, in order to expand economies of scale and strengthen bargaining power. A more collective approach may also be beneficial in terms of risk pooling.

International action is needed to help harness the entrepreneurial potential of rural women in LDCs for economic and human development. While LDCs themselves can do much to enable rural women to fulfil their entrepreneurial potential, the international community can also play an important role.

B. Promoting entrepreneurship among rural women in LDCs

This Report proposes the establishment of an international support measure to support women's non-agricultural enterprises in rural areas.

This Report proposes the establishment of an international support measure, Female Rural Entrepreneurship for Economic Diversification (FREED), aimed at

empowering rural women in LDCs through support to the development and consolidation of women's non-agricultural enterprises in rural areas. Such a measure would address various constraints on women's entrepreneurship, many of which are gender-related. While such constraints vary considerably between national and local contexts, appropriate support activities might include the following:

Appropriate support activities might include: 1. Providing start-up funding; 2. Providing training in enterprise management; 3. Promoting the establishment of production cooperatives; 4. Promoting networking among rural women's enterprises; 5. Developing appropriate mobile phone apps and other technologies.

1. Providing start-up funding and funding for the expansion of individual and collective enterprises led by women in rural areas;
2. Providing training in enterprise management and production skills, particularly in traditionally male occupations, designing such training to take account of low literacy rates (and supporting adult literacy programmes) where appropriate;
3. Promoting and facilitating the establishment of production cooperatives and collectives, and the consolidation of existing microenterprises run by women;
4. Promoting networking and collaboration among new and existing rural women's enterprises, and facilitating mutual learning and sharing of experiences;
5. Developing and/or disseminating appropriate mobile phone apps and other technologies (e.g. production methods and equipment) to meet the needs of rural enterprises, and supporting their local adaptation and use in areas where there is network coverage.

Sectors that are likely to merit support, include: food processing; food preservation and packaging; clothing/tailoring; wood- and metal-working and ceramics; commercial and marketing activities.

Appropriate sectors for support would vary according to local circumstances, and it would be important to maintain flexibility to respond to particular needs in a wide range of circumstances. Nevertheless, it is possible to identify sectors that are likely to merit support, as described below:

- Food processing for the local market, primarily processing of traditional ingredients (e.g. grinding, milling, shredding, drying, smoking and producing juices), depending on local diets. Such demand may increase as incomes rise and economic opportunities for women increase.
- Food preservation and packaging, which also increase opportunities to sell surplus production to a wider market, including urban areas, as agricultural output increases. This would also help to promote the introduction of new crops, and it could eventually lead to greater commercialization. For example, a recent UNCTAD study identified opportunities in Rwanda for processing and bottling tomatoes for sale in regional markets (UNCTAD, 2014).
- Clothing/tailoring, to meet increasing local demand as incomes rise.
- Wood- and metal-working and ceramics (depending on local availability of materials), including production of basic household goods, agricultural implements and artisanal tools.
- Commercial and marketing activities, including selling local products in local and regional markets and procuring inputs for agricultural and non-agricultural producers (e.g. fertilizers, pesticides, seeds, fabrics, tools and equipment).

Funding for this initiative could come from ODA, international organizations, philanthropic foundations and voluntary contributions.

Funding for this initiative could come from ODA, preferably through the provision of additional funds specifically aimed at fostering entrepreneurship among rural women in the LDCs. This could be supplemented by additional funding from international organizations, philanthropic foundations and voluntary contributions.

Note

1 Based on data from the World Bank, *World Development Indicators* database (accessed September 2014). Figures are the median for LDCs where data are available since 2005, using the latest available gender-specific net enrolment ratios at primary and secondary levels.

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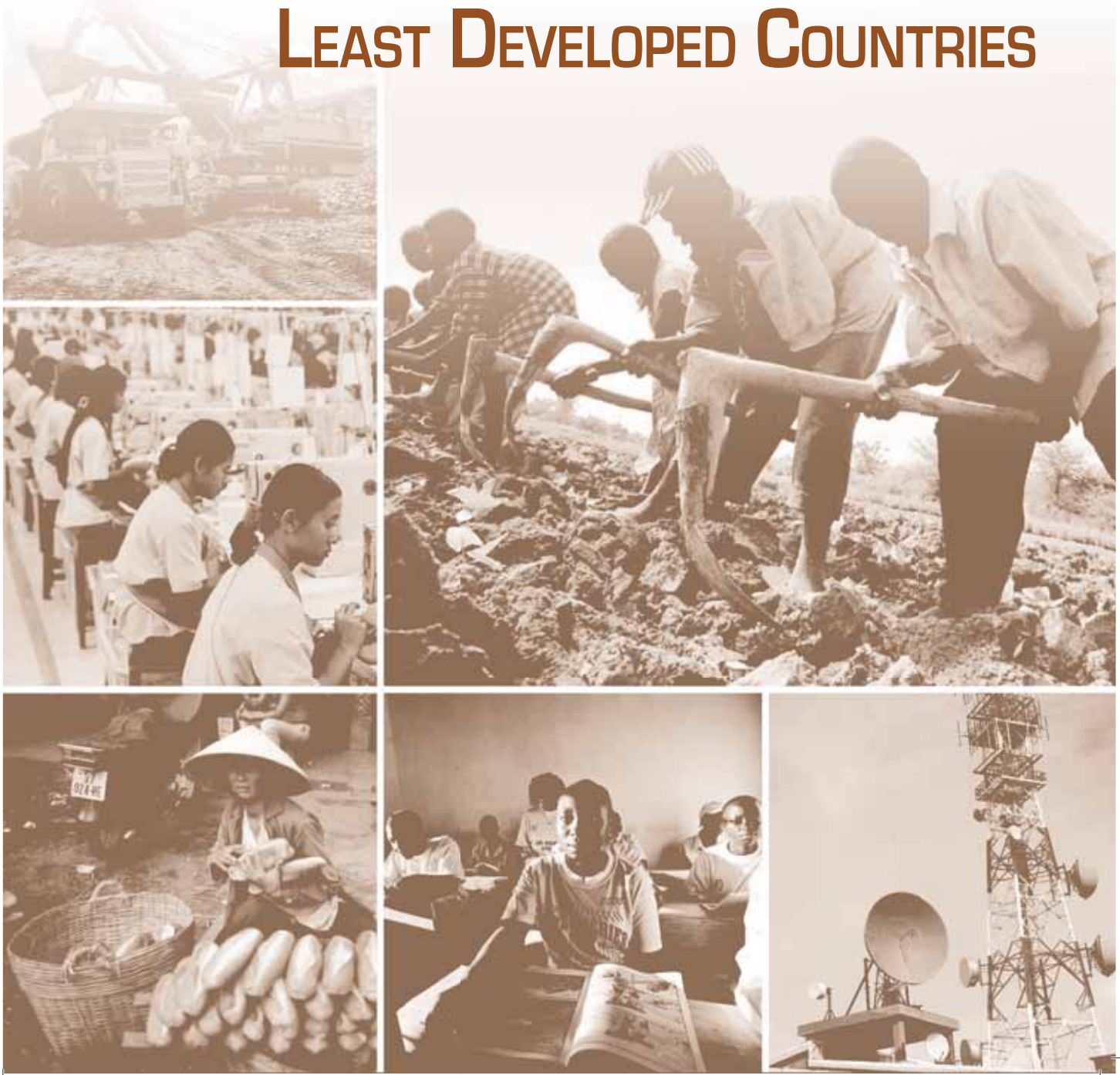
Statistical Tables on the Least Developed Countries



Annex table 1. Indicators on LDCs' development

Country	GNI per capita (Current dollars)[a]	Economic Vulnerability Index[b] (EVI)	Human Assets Index[c] (HAI)	Income level	Human Development Index (HDI)		Multi-dimensional Poverty Index (MPI)[d]
					Value	Rank	Value
	2013	CDP 2012 review			2013		2013
Afghanistan	700	38.8	22.5	Low income	0.47	169	0.29
Angola	5,010	51.3	31.6	Upper middle income	0.53	149	..
Bangladesh	900	32.4	54.7	Low income	0.56	142	0.24
Benin	790	36.2	41.1	Low income	0.48	165	0.40
Bhutan	2,460	44.2	59.0	Lower middle income	0.58	136	0.13
Burkina Faso	670	37.5	29.2	Low income	0.39	181	0.51
Burundi	280	57.2	20.8	Low income	0.39	180	0.44
Cambodia	950	50.5	57.9	Low income	0.58	136	0.21
Central African Republic	320	35.7	21.6	Low income	0.34	185	0.42
Chad	1,020	52.8	18.1	Low income	0.37	184	..
Comoros	880	49.9	45.3	Low income	0.49	159	..
Democratic Republic of the Congo	400	35.4	21.7	Low income	0.34	186	0.40
Djibouti	1565[e]	46.3	42.4	Lower middle income	0.47	170	0.13
Equatorial Guinea	14,320	43.7	43.0	High income: non-OECD	0.56	144	..
Eritrea	490	59.0	35.6	Low income	0.38	182	..
Ethiopia	470	33.5	28.2	Low income	0.44	173	0.54
Gambia	510	67.8	49.2	Low income	0.44	172	0.33
Guinea	460	28.6	36.8	Low income	0.39	179	0.55
Guinea-Bissau	520	60.5	34.2	Low income	0.40	177	0.49
Haiti	810	47.3	35.6	Low income	0.47	168	0.24
Kiribati	2,620	82.0	86.9	Lower middle income	0.61	133	..
Lao People's Democratic Republic	1,460	37.1	61.4	Lower middle income	0.57	139	0.19
Lesotho	1,550	45.9	62.1	Lower middle income	0.49	162	0.23
Liberia	410	61.0	38.5	Low income	0.41	175	0.46
Madagascar	440	38.0	52.5	Low income	0.50	155	0.42
Malawi	270	51.9	44.1	Low income	0.41	174	0.33
Mali	670	36.8	30.2	Low income	0.41	176	0.53
Mauritania	1,060	44.2	47.1	Lower middle income	0.49	161	0.36
Mozambique	590	44.4	30.7	Low income	0.39	178	0.39
Myanmar	994 e	45.0	68.8	Low income	0.52	150	..
Nepal	730	27.8	59.8	Low income	0.54	145	0.20
Niger	410	38.6	24.3	Low income	0.34	187	0.58
Rwanda	620	47.3	42.2	Low income	0.51	151	0.35
Sao Tome and Principe	1,470	46.1	74.9	Lower middle income	0.56	142	0.22
Senegal	1,070	36.1	47.0	Lower middle income	0.49	163	0.39
Sierra Leone	680	48.5	24.8	Low income	0.37	183	0.41
Solomon Islands	1,610	55.2	65.1	Lower middle income	0.49	157	..
Somalia	111 e	50.1	1.4	Lower middle income	..		0.50
South Sudan	1,120	..	..	Lower middle income	..		..
Sudan	1,130	44.4	52.6	Lower middle income	0.47	166	..
Timor-Leste	3,580	53.3	48.1	Lower middle income	0.62	128	0.32
Togo	530	35.4	45.5	Low income	0.47	166	0.26
Tuvalu	6,630	63.9	88.1	Upper middle income	..		..
Uganda	510	36.2	45.8	Low income	0.48	164	0.36
United Republic of Tanzania	630	28.7	40.1	Low income	0.49	159	0.33
Vanuatu	3,130	46.8	77.7	Lower middle income	0.62	131	0.13
Yemen	1,330	38.5	52.3	Lower middle income	0.50	154	0.19
Zambia	1,480	53.0	36.9	Lower middle income	0.56	141	0.32

Source: United Nations Committee for Development Policy (CDP) database, 2012 review; World Bank, *World Development Indicators* database; United Nations, *UNdata* database; UNDP. *Human Development Report 2014*; World Bank Economies Income classification (accessed August 2014).

Notes: a)GNI current dollars Atlas method, World Bank, *World Development Indicators* database (accessed August 2014);
b) EVI: higher values indicate higher vulnerablity. See explanotory notes at http://www.un.org/en/development/desa/policy/cdp/cdp_publications/2008cdphandbook.pdf
c) HAI: lower values indicate weaker human asset development. See explanotory notes at http://www.un.org/en/development/desa/policy/cdp/cdp_publications/2008cdphandbook.pdf
d) MPI: higher values indicate population multidimentionally poor. See explanatory notes for HDR composite indices at http://hdrstats.undp.org/images/explanations/PSE.pdf
e) Average 2010-2012 for Djibouti, Myanmar and Somalia. Source: UNdata, *National Accounts Main Aggregates Database* (accessed August 2014).

Annex table 2. Real GDP growth rate for individual LDCs, 2008–2014
(Annual growth rates, per cent)

	2008	2009	2010	2011	2012	2013	2014
Afghanistan	3.9	20.6	8.4	6.5	14.0	3.6	3.2
Angola	13.8	2.4	3.4	3.9	5.2	4.1	5.3
Bangladesh	6.0	5.9	6.4	6.5	6.1	5.8	6.0
Benin	5.0	2.7	2.6	3.3	5.4	5.6	5.5
Bhutan	10.8	5.7	9.3	10.1	6.5	5.0	6.4
Burkina Faso	5.8	3.0	8.4	5.0	9.0	6.8	6.0
Burundi	4.9	3.8	5.1	4.2	4.0	4.5	4.7
Cambodia	6.7	0.1	6.1	7.1	7.3	7.0	7.2
Central African Republic	2.1	1.7	3.0	3.3	4.1	-36.0	1.5
Chad	3.1	4.2	13.6	0.1	8.9	3.6	10.8
Comoros	1.0	1.8	2.1	2.2	3.0	3.5	4.0
Dem. Republic of the Congo	6.2	2.9	7.1	6.9	7.2	8.5	8.7
Djibouti	5.8	5.0	3.5	4.5	4.8	5.0	6.0
Equatorial Guinea	12.3	-8.1	-1.3	5.0	3.2	-4.9	-2.4
Eritrea	-9.8	3.9	2.2	8.7	7.0	1.3	2.3
Ethiopia	11.2	10.0	10.6	11.4	8.5	9.7	7.5
Gambia	5.7	6.5	6.5	-4.3	5.3	6.3	7.4
Guinea	4.9	-0.3	1.9	3.9	3.8	2.5	4.5
Guinea-Bissau	3.2	3.0	3.5	5.3	-1.5	0.3	3.0
Haiti	0.8	3.1	-5.5	5.5	2.9	4.3	4.0
Kiribati	2.8	-0.7	-0.5	2.7	2.8	2.9	2.7
Lao People's Dem. Republic	7.8	7.5	8.1	8.0	7.9	8.2	7.5
Lesotho	5.1	4.5	5.6	4.3	6.0	5.8	5.6
Liberia	6.0	5.1	6.1	7.9	8.3	8.0	7.0
Madagascar	7.2	-3.5	0.1	1.5	2.5	2.4	3.0
Malawi	8.3	9.0	6.5	4.3	1.9	5.0	6.1
Mali	5.0	4.5	5.8	2.7	0.0	1.7	6.5
Mauritania	3.5	-1.2	4.3	4.0	7.0	6.7	6.8
Mozambique	6.8	6.3	7.1	7.3	7.2	7.1	8.3
Myanmar	3.6	5.1	5.3	5.9	7.3	7.5	7.8
Nepal	6.1	4.5	4.8	3.4	4.9	3.6	4.5
Niger	9.7	-0.7	8.4	2.3	11.1	3.6	6.5
Rwanda	11.2	6.2	7.2	8.2	8.0	5.0	7.5
Sao Tome and Principe	9.1	4.0	4.5	4.9	4.0	4.0	5.0
Senegal	3.7	2.4	4.3	2.1	3.5	4.0	4.6
Sierra Leone	5.2	3.2	5.3	6.0	15.2	16.3	13.9
Solomon Islands	7.1	-4.7	7.8	10.7	4.9	2.9	4.0
Somalia	..	..	..	..	..	..	..
South Sudan	..	..	..	..	..	24.4	7.1
Sudan	..	..	..	..	..	3.4	2.7
Sudan (former)	3.0	4.7	3.0	-1.2	-3.0	..	..
Timor-Leste	14.6	12.8	9.5	12.0	9.3	8.4	9.0
Togo	2.4	3.5	4.1	4.8	5.9	5.6	6.0
Tuvalu	8.0	-4.4	-2.7	8.5	0.2	1.1	1.6
Uganda	10.4	4.1	6.2	6.2	2.8	6.0	6.4
United Republic of Tanzania	7.4	6.0	7.0	6.4	6.9	7.0	7.2
Vanuatu	6.5	3.3	1.6	1.2	1.8	2.8	3.5
Yemen	3.6	3.9	7.7	-12.7	2.4	4.4	5.1
Zambia	5.7	6.4	7.6	6.8	7.2	6.0	7.3
LDCs	**6.8**	**4.5**	**5.7**	**4.2**	**7.5**	**5.6**	**6.0**
African LDCs and Haiti	7.6	3.6	5.1	4.4	8.2	5.6	5.9
Asia LDCs	5.3	5.9	6.5	3.8	6.4	5.7	6.0
Island LDCs	10.4	7.4	7.1	9.2	7.1	6.5	7.2
ODCs	**5.1**	**2.7**	**7.8**	**5.7**	**4.8**	**4.5**	**4.7**

Source: UNCTAD secretariat calculations, based on data from IMF, *World Economic Outlook* database (accessed April 2014).
Notes: Data for 2013 are preliminary and are forecasted for 2014.

Annex table 3. Real GDP per capita growth rate for individual LDCs, 2008–2014
(Annual growth rates, per cent)

	2008	2009	2010	2011	2012	2013	2014
Afghanistan	1.2	17.6	5.8	3.9	11.2	1.1	0.8
Angola	10.9	-0.2	0.4	0.9	2.1	1.0	2.2
Bangladesh	4.9	4.8	5.3	5.3	4.9	4.7	4.9
Benin	1.9	-0.3	-0.3	0.5	2.6	2.9	2.8
Bhutan	8.9	3.8	7.5	8.3	5.8	4.7	6.2
Burkina Faso	2.2	0.2	5.6	1.7	5.7	4.9	3.6
Burundi	2.4	1.4	2.6	1.7	1.6	2.0	2.3
Cambodia	4.9	-1.6	5.0	6.0	6.2	6.0	6.2
Central African Republic	0.2	-0.2	1.1	1.3	2.1	-37.3	-0.5
Chad	0.5	1.7	10.8	-2.4	6.2	1.1	8.1
Comoros	-1.1	-0.2	-0.1	0.1	0.9	1.3	1.8
Dem. Republic of the Congo	3.1	-0.1	4.0	3.8	4.0	5.3	5.5
Djibouti	2.9	2.2	0.7	1.6	2.0	2.1	3.2
Equatorial Guinea	9.2	-10.6	-4.0	2.1	0.4	-7.5	-5.1
Eritrea	-12.7	0.6	-1.1	5.2	3.6	-1.9	-1.0
Ethiopia	8.8	7.7	8.2	9.0	6.0	7.2	4.9
Gambia	2.8	3.5	3.7	-6.9	2.4	3.5	4.5
Guinea	2.6	-2.7	-0.6	1.4	1.3	0.0	1.9
Guinea-Bissau	1.1	0.9	1.4	3.2	-3.5	-1.8	0.9
Haiti	-0.5	1.7	-6.7	4.1	1.5	2.9	2.6
Kiribati	0.7	-2.6	-2.4	0.8	0.9	1.0	-0.1
Lao People's Dem. Republic	5.6	5.3	6.0	6.0	5.8	6.2	5.5
Lesotho	4.8	4.2	5.3	4.1	5.7	5.5	5.3
Liberia	0.9	0.8	1.8	5.2	5.6	5.2	4.3
Madagascar	4.2	-6.2	-2.6	-2.1	0.0	-0.1	0.6
Malawi	5.4	6.0	3.6	1.4	-1.0	2.0	3.1
Mali	1.8	1.3	2.7	-0.4	-3.0	-1.3	3.2
Mauritania	0.9	-3.6	1.8	1.5	4.5	4.2	4.3
Mozambique	4.1	3.6	4.4	4.6	4.6	4.5	5.8
Myanmar	1.6	3.1	3.3	3.8	5.2	5.4	5.7
Nepal	4.9	3.4	3.6	2.2	3.6	2.0	2.9
Niger	5.9	-4.1	5.1	-0.8	7.7	0.4	3.3
Rwanda	8.9	4.1	5.0	6.0	5.8	2.8	5.3
Sao Tome and Principe	7.0	2.1	2.6	3.1	-7.1	1.8	2.8
Senegal	0.9	-0.4	1.3	-0.8	0.5	1.1	1.6
Sierra Leone	3.0	1.2	3.3	3.9	13.0	13.9	11.5
Solomon Islands	4.6	-6.8	5.6	8.2	2.6	0.7	1.7
Somalia	..	..	..	..	..	..	..
South Sudan	..	..	..	..	..	18.7	2.4
Sudan	..	..	..	..	..	0.7	0.1
Sudan (former)	0.4	2.0	0.4	21.5	-5.5	..	..
Timor-Leste	12.0	10.0	6.6	8.9	6.2	5.3	5.8
Togo	-0.1	0.9	1.4	2.1	3.2	2.9	3.3
Tuvalu	8.0	-4.4	-2.7	8.5	0.2	1.1	1.6
Uganda	6.9	0.8	2.8	2.8	-0.5	2.6	3.0
United Republic of Tanzania	4.7	3.4	4.4	3.9	4.4	3.8	4.1
Vanuatu	4.1	1.1	-0.5	-1.3	-0.3	-3.4	0.8
Yemen	0.5	0.8	4.6	-15.3	-0.6	1.4	2.0
Zambia	2.7	3.3	4.4	3.6	3.9	2.7	3.9
LDCs	**4.4**	**2.2**	**3.3**	**1.7**	**5.1**	**3.2**	**3.6**
African LDCs and Haiti	4.8	0.9	2.4	1.4	5.3	2.7	3.1
Asia LDCs	3.7	4.3	4.9	2.2	4.7	4.0	4.3
Island LDCs	8.0	5.0	4.7	6.7	3.9	3.6	4.6
ODCs	**3.7**	**1.5**	**6.5**	**4.9**	**3.5**	**3.3**	**3.5**

Source: UNCTAD secretariat calculations, based on data from IMF, *World Economic Outlook* database (accessed April 2014).
Notes: Data for 2013 are preliminary and are forecasted for 2014.

Annex table 4. Gross fixed capital formation, gross domestic savings and external resource gap in LDCs, by country and by LDC groups, selected years
(Per cent of GDP)

	Gross fixed capital formation					Gross domestic savings					External ressource gap				
	2000-2008	2009	2010	2011	2012	2000-2008	2009	2010	2011	2012	2000-2008	2009	2010	2011	2012
Afghanistan	17.8	17.4	17.5	15.8	15.2	-25.2	-9.9	-11.4	-6.1	-8.5	-43.0	-27.3	-28.8	-21.9	-23.7
Angola	12.6	15.3	15.3	15.3	15.2	39.5	15.6	35.3	40.4	40.0	27.0	0.3	19.9	25.1	24.8
Bangladesh	26.2	26.7	26.7	27.9	28.7	19.7	20.4	21.0	21.1	21.1	-6.4	-6.2	-5.7	-6.9	-7.6
Benin	19.5	21.0	20.5	20.7	19.9	11.7	11.9	11.5	11.8	12.1	-7.7	-9.1	-9.0	-8.9	-7.7
Bhutan	50.6	46.9	59.9	66.5	64.0	36.8	30.0	32.8	36.4	35.4	-13.8	-16.9	-27.1	-30.1	-28.6
Burkina Faso	19.6	22.5	22.8	23.0	27.2	7.2	9.5	16.6	12.5	10.1	-12.4	-13.0	-6.2	-10.5	-17.1
Burundi	13.7	12.5	18.9	21.7	20.2	-10.2	-10.0	-7.3	-5.7	-21.2	-23.8	-22.5	-26.1	-27.3	-41.4
Cambodia	18.5	20.1	16.2	16.0	17.4	11.8	17.7	12.4	11.1	14.0	-6.7	-2.4	-3.8	-4.9	-3.3
Central African Republic	9.6	11.3	14.1	14.9	14.7	3.3	-0.6	1.9	4.4	4.6	-6.4	-11.9	-12.2	-10.4	-10.1
Chad	22.1	20.7	22.7	22.6	22.2	42.2	43.1	48.4	52.4	51.2	20.1	22.4	25.7	29.8	29.0
Comoros	10.4	12.8	12.7	11.6	14.0	-10.8	-14.6	-13.8	-9.5	-6.3	-21.1	-27.3	-26.5	-21.1	-20.2
Dem. Republic of the Congo	15.9	19.8	21.9	20.5	28.2	8.8	21.4	20.4	10.7	21.5	-7.1	1.5	-1.5	-9.8	-6.7
Djibouti	16.5	17.7	17.4	17.2	19.4	-4.4	-4.4	-4.1	-4.0	0.1	-20.9	-22.1	-21.5	-21.1	-19.3
Equatorial Guinea	30.3	69.5	49.0	43.2	44.7	88.9	87.5	87.0	86.9	86.7	58.6	18.0	38.0	43.7	42.0
Eritrea	19.9	9.3	9.3	10.0	9.5	-21.1	-9.7	-9.3	1.2	6.3	-41.0	-18.9	-18.6	-8.8	-3.1
Ethiopia	25.3	24.9	27.0	27.9	34.6	10.5	9.8	9.3	12.8	16.5	-14.8	-15.1	-17.7	-15.1	-18.1
Gambia	29.9	28.5	27.8	26.9	33.7	9.9	8.0	3.6	13.4	18.5	-20.0	-20.6	-24.2	-13.5	-15.2
Guinea	26.8	27.5	30.0	35.1	41.9	23.4	25.1	27.5	18.6	21.1	-3.4	-2.4	-2.6	-16.5	-20.8
Guinea-Bissau	9.5	5.9	6.6	13.4	7.6	-3.9	-10.2	-8.7	1.1	-4.6	-13.4	-16.2	-15.3	-12.3	-12.2
Haiti	14.8	14.3	13.3	14.6	15.2	-15.7	-17.6	-44.9	-31.9	-22.9	-30.4	-31.9	-58.1	-46.5	-38.1
Kiribati	40.6	43.5	42.2	43.3	43.1	-30.3	-39.6	-35.4	-39.1	-38.2	-70.8	-83.1	-77.6	-82.4	-81.2
Lao People's Dem. Republic	29.4	35.4	29.0	31.8	32.1	19.1	26.2	26.1	27.5	26.6	-10.3	-9.2	-2.9	-4.2	-5.5
Lesotho	27.3	26.9	27.2	26.5	30.8	-45.4	-42.0	-38.6	-31.4	-30.6	-72.8	-69.0	-65.8	-57.9	-61.4
Liberia	13.8	12.7	12.6	12.5	12.6	-12.3	-28.7	-26.7	-25.4	-26.9	-26.2	-41.4	-39.3	-37.9	-39.6
Madagascar	24.9	34.7	20.7	17.6	17.2	7.3	5.5	2.7	2.0	2.4	-17.6	-29.2	-18.0	-15.5	-14.9
Malawi	14.9	16.5	10.4	5.5	6.0	-0.6	-5.2	-8.2	-8.1	-11.8	-15.5	-21.7	-18.6	-13.6	-17.8
Mali	17.9	20.5	21.2	22.2	16.2	16.4	20.5	22.3	21.2	21.3	-1.5	0.0	1.1	-0.9	5.1
Mauritania	29.5	29.4	42.9	25.9	27.3	12.2	0.1	4.4	15.7	24.2	-17.3	-29.4	-38.5	-10.1	-3.1
Mozambique	20.0	16.5	16.5	17.8	17.5	5.7	6.6	9.5	6.5	6.9	-14.3	-9.9	-7.0	-11.3	-10.6
Myanmar	13.2	19.0	22.9	30.5	34.8	13.9	15.8	21.0	22.6	24.5	0.8	-3.2	-1.8	-7.9	-10.3
Nepal	20.4	21.4	22.2	21.3	20.0	10.3	9.4	11.5	14.5	11.5	-10.2	-11.9	-10.8	-6.8	-8.5
Niger	21.3	34.7	38.9	38.3	33.8	10.0	8.2	13.1	11.5	15.1	-11.3	-26.5	-25.8	-26.8	-18.7
Rwanda	16.9	21.6	21.0	21.4	22.8	2.1	2.2	0.4	4.1	3.2	-14.9	-19.4	-20.5	-17.4	-19.7
Sao Tome and Principe	26.9	21.3	24.9	26.1	24.1	-17.2	-19.6	-21.0	-29.6	-23.4	-44.0	-41.0	-46.0	-55.6	-47.5
Senegal	24.5	23.0	22.4	23.8	24.7	7.8	5.2	7.2	7.3	6.3	-16.7	-17.8	-15.2	-16.5	-18.4
Sierra Leone	9.8	9.6	30.7	41.7	21.6	-3.4	-4.4	13.4	2.4	22.0	-13.2	-14.1	-17.3	-39.3	0.4
Solomon Islands	16.2	18.1	35.9	34.3	21.4	4.3	-0.7	2.9	28.0	14.2	-11.9	-18.8	-33.0	-6.2	-7.2
Somalia	19.8	20.0	19.9	20.0	20.0	18.5	18.7	18.6	18.7	18.6	-1.3	-1.3	-1.3	-1.3	-1.3
South Sudan	-	-	-	-	7.2	-	-	-	-	-2.6	-	-	-	-	-9.8
Sudan	-	-	-	-	22.5	-	-	-	-	0.4	-	-	-	-	-22.2
Sudan (former)	17.7	18.2	19.7	18.7	-	16.6	15.7	22.4	23.0	-	-1.2	-2.5	2.6	4.3	-
Timor-Leste	4.7	14.8	13.0	13.8	13.9	60.8	57.1	63.2	71.0	63.8	56.1	42.2	50.2	57.2	49.9
Togo	15.6	16.7	18.0	17.8	23.1	-2.7	3.1	2.1	3.4	9.3	-18.3	-13.6	-15.9	-14.3	-13.9
Tuvalu	59.2	54.6	46.7	49.5	53.1	-5.2	-2.7	-8.5	-1.2	0.1	-64.4	-57.4	-55.2	-50.6	-53.0
Uganda	20.6	21.8	22.8	24.5	24.5	9.0	12.1	7.7	7.5	6.2	-11.6	-9.6	-15.0	-17.0	-18.3
United Republic of Tanzania	23.4	28.0	31.0	35.4	33.4	14.5	17.0	21.3	17.5	18.3	-8.9	-11.0	-9.7	-17.8	-15.0
Vanuatu	22.3	27.0	27.8	29.3	28.0	17.4	21.0	21.4	21.6	21.3	-4.9	-6.0	-6.4	-7.7	-6.7
Yemen	18.1	19.8	19.6	13.2	19.7	23.6	11.5	15.5	17.8	8.9	5.5	-8.3	-4.2	4.6	-10.8
Zambia	20.7	19.6	21.1	23.5	26.6	19.9	23.9	34.4	31.5	38.2	-0.9	4.3	13.4	8.0	11.6
LDCs	**20.5**	**22.3**	**22.6**	**22.9**	**24.5**	**17.6**	**15.5**	**20.1**	**21.6**	**20.0**	**-2.9**	**-6.8**	**-2.5**	**-1.4**	**-4.5**
African LDCs and Haiti	19.3	21.6	21.8	21.6	23.0	18.2	14.9	21.5	23.0	21.1	-1.1	-6.7	-0.2	1.3	-1.9
Asian LDCs	22.6	23.6	24.0	25.2	27.2	16.4	16.0	17.2	18.4	17.6	-6.2	-7.6	-6.7	-6.8	-9.6
Islands LDCs	11.8	17.5	18.2	18.2	17.2	31.8	34.0	40.8	50.6	43.3	20.0	16.6	22.6	32.4	26.1
ODCs	**26.1**	**30.2**	**30.2**	**30.4**	**31.1**	**32.0**	**33.8**	**35.1**	**35.6**	**35.4**	**5.9**	**3.6**	**4.9**	**5.3**	**4.4**

Source: UNCTAD secretariat calculations, based on data from *UNCTADstat* database (accessed August 2014).

Annex table 5. Share of value added in main economic sectors in LDCs, by country and country groups, 1991, 2000 and 2012
(Per cent of GDP)

	Agriculture, hunting, forestry, fishing			Industry						Services		
				Manufacturing			Non manufacturing					
	1991	2000	2012	1991	2000	2012	1991	2000	2012	1991	2000	2012
Afghanistan	48.6	55.7	28.9	20.1	17.0	12.5	3.4	6.1	12.0	28.2	20.4	46.5
Angola	11.2	8.1	9.9	4.1	3.7	5.7	50.7	70.8	59.4	30.5	20.9	23.4
Bangladesh	25.6	22.4	17.2	12.6	15.0	18.5	6.3	8.2	9.9	55.6	54.5	54.4
Benin	35.2	36.4	35.5	7.9	8.6	7.4	7.0	5.3	6.3	50.4	49.3	51.1
Bhutan	41.7	29.3	15.2	6.4	7.8	9.6	19.3	27.2	33.0	32.7	36.3	40.6
Burkina Faso	32.5	36.3	40.1	14.6	11.1	6.5	6.6	8.4	9.6	45.2	44.1	44.3
Burundi	46.4	48.2	38.1	16.4	13.9	8.7	6.9	5.8	6.6	30.4	32.1	46.6
Cambodia	50.6	39.5	28.7	7.6	15.3	21.6	3.3	6.1	7.2	40.5	39.8	42.0
Central African Republic	44.5	50.7	53.6	7.0	6.1	7.0	11.2	7.7	7.7	37.2	35.4	31.7
Chad	32.6	35.0	21.4	7.5	7.9	6.6	10.3	10.0	33.9	34.1	32.5	30.9
Comoros	41.2	47.7	49.3	4.2	4.5	4.0	3.6	6.9	6.0	51.1	41.0	40.7
Democratic Republic of the Congo	49.1	58.5	44.1	9.0	5.8	4.8	6.2	11.5	18.2	38.2	27.9	31.3
Djibouti	3.1	3.4	3.7	3.4	2.5	2.7	15.9	11.5	16.8	76.6	82.2	77.2
Equatorial Guinea	26.5	6.5	1.4	0.7	0.2	0.1	7.8	84.2	88.9	10.6	3.6	3.4
Eritrea	..	15.1	16.9	..	11.2	5.9	..	11.8	17.3	..	61.9	59.9
Ethiopia	..	47.0	38.3	..	5.3	5.2	..	6.4	8.9	..	40.5	49.3
Ethiopia (former)	49.8	..	..	4.9	..	..	5.9	..	..	35.6	..	..
Gambia	25.0	27.8	22.9	6.6	5.6	5.6	7.9	6.9	9.1	60.3	59.4	62.3
Guinea	22.0	22.4	19.7	6.0	6.1	6.6	24.3	26.5	27.6	44.1	41.2	43.1
Guinea-Bissau	32.7	41.5	42.8	16.6	13.0	11.5	6.4	3.0	2.0	44.2	42.5	43.7
Haiti	31.1	23.1	19.3	18.4	9.8	10.1	9.4	21.7	27.1	38.5	44.0	46.6
Kiribati	28.8	24.6	24.8	5.8	5.3	5.1	1.4	1.4	1.5	65.5	70.1	69.8
Lao People's Democratic Republic	48.6	44.5	26.9	5.6	7.8	9.7	8.8	11.9	21.4	36.4	35.4	42.8
Lesotho	12.6	12.5	7.9	8.9	12.9	18.0	11.4	14.9	16.1	65.4	58.7	58.1
Liberia	57.6	77.2	60.6	7.1	3.5	6.0	4.3	2.9	10.5	29.7	14.7	17.5
Madagascar	30.2	28.3	27.1	13.8	13.9	13.6	1.8	4.0	7.0	53.8	54.0	52.3
Malawi	31.9	37.3	25.2	11.8	9.3	20.6	4.1	5.0	11.7	52.6	47.0	51.0
Mali	48.2	37.8	43.5	8.8	10.9	7.2	3.7	11.1	11.5	38.9	40.5	36.6
Mauritania	44.2	34.8	25.6	7.5	10.9	5.2	19.2	21.8	25.9	27.1	32.8	43.6
Mozambique	35.2	28.5	27.3	9.4	11.8	12.3	2.8	8.8	9.9	53.2	51.0	51.0
Myanmar	58.6	54.7	37.9	7.0	8.3	18.6	2.0	3.5	5.2	33.1	34.3	37.7
Nepal	41.8	34.0	33.0	6.3	9.1	6.7	7.9	8.8	9.0	43.2	48.1	51.7
Niger	38.8	41.8	47.2	7.2	6.3	6.3	8.7	6.0	8.6	44.9	45.7	37.9
Rwanda	39.8	44.5	32.2	8.8	6.9	6.1	6.1	7.6	10.5	45.5	40.6	52.0
Sao Tome and Principe	17.0	20.6	17.6	7.5	7.7	6.6	11.3	11.3	10.5	64.9	60.7	64.7
Senegal	20.3	19.8	14.6	16.2	15.7	13.9	6.5	7.7	8.8	57.4	57.2	62.3
Sierra Leone	47.1	47.0	42.6	3.1	3.0	2.2	8.0	8.9	28.4	41.8	41.1	28.8
Solomon Islands	34.5	27.4	33.2	5.7	6.7	4.6	7.3	9.7	4.9	53.3	55.9	57.4
Somalia	70.2	60.9	60.4	1.9	2.4	2.4	3.7	4.7	4.8	24.4	32.0	32.4
South Sudan	..	..	8.7	..	..	4.5	..	..	22.6	..	..	75.9
Sudan	..	..	42.6	..	..	9.6	..	..	6.8	..	..	42.3
Sudan (former)	35.4	41.9	..	7.7	7.3	..	1.4	9.4		56.2	43.2	..
Timor-Leste	..	..	4.5	..	..	0.8	..		80.5	..	..	14.5
Togo	37.9	41.0	36.3	9.0	8.6	10.4	11.7	8.4	9.9	42.6	44.0	44.5
Tuvalu	34.1	22.8	20.2	1.6	0.8	1.0	9.4	9.0	15.3	54.8	67.4	63.6
Uganda	38.6	30.3	19.4	5.1	7.7	7.2	12.1	15.0	17.8	47.6	48.4	54.0
United Republic of Tanzania	35.9	35.1	25.8	8.4	8.2	9.4	9.0	11.5	14.9	46.4	45.3	49.5
Vanuatu	19.6	23.1	21.1	6.0	4.9	3.5	5.7	7.8	6.6	68.6	64.2	69.0
Yemen	10.5	10.1	13.4	3.9	6.1	6.7	38.7	49.7	22.1	46.8	39.6	51.9
Zambia	22.8	26.9	19.2	10.9	11.2	9.8	21.8	10.8	20.3	42.2	52.7	49.2
LDCs	**32.1**	**30.1**	**24.3**	**9.2**	**9.6**	**10.6**	**13.2**	**17.8**	**20.6**	**44.8**	**43.2**	**44.0**
African LDCs and Haiti	32.9	32.5	26.0	8.4	7.8	7.5	14.8	19.8	25.8	42.7	40.4	40.3
Asia LDCs	30.5	26.3	22.0	10.9	12.4	15.9	10.2	14.9	11.1	48.4	47.3	50.2
Island LDCs	30.7	30.9	14.0	5.4	5.5	2.0	5.7	8.0	54.6	58.5	55.7	29.6
ODCs	**11.4**	**9.7**	**7.5**	**14.6**	**14.4**	**23.1**	**22.3**	**24.1**	**16.2**	**51.6**	**51.8**	**53.2**

Source: UNCTAD secretariat calculations based on data from *UNCTADstat* database (accessed July 2014).

Annex table 6. Foreign direct investment inflows to LDCs, selected years
(Millions of current dollars)

	2000–2008	2009	2010	2011	2012	2013
Afghanistan	120.8	75.7	211.3	83.4	93.8	69.3
Angola	1 010.5	2 205.3	-3 227.2	-3 023.8	-6 898.0	-4 284.8
Bangladesh	606.9	700.2	913.3	1 136.4	1 292.6	1 599.1
Benin	84.1	134.3	176.8	161.1	281.6	320.1
Bhutan	12.9	71.7	30.8	25.9	21.8	21.3
Burkina Faso	67.2	100.9	34.6	143.7	329.3	374.3
Burundi	1.9	0.3	0.8	3.4	0.6	6.8
Cambodia	356.1	539.1	782.6	814.5	1 446.5	1 396.0
Central African Republic	28.5	42.3	61.5	36.9	71.2	0.8
Chad	271.7	375.7	313.0	281.9	342.8	538.4
Comoros	1.9	13.8	8.3	23.1	10.4	13.9
Democratic Republic of the Congo	572.4	663.8	2 939.3	1 686.9	3 312.1	2 098.2
Djibouti	68.6	99.6	26.8	78.0	110.0	286.0
Equatorial Guinea	459.6	1 636.2	2 734.0	1 975.0	2 015.0	1 914.0
Eritrea	19.4	91.0	91.0	39.0	41.4	43.9
Ethiopia	321.1	221.5	288.3	626.5	278.6	953.0
Gambia	49.8	39.6	37.2	36.0	25.2	25.3
Guinea	135.6	140.9	101.4	956.1	606.5	24.8
Guinea-Bissau	7.4	17.5	33.2	25.0	6.6	14.5
Haiti	37.1	56.0	178.0	119.0	156.0	190.0
Kiribati	1.1	3.2	-0.2	0.3	1.3	9.0
Lao People's Democratic Republic	96.1	189.5	278.8	300.8	294.4	296.0
Lesotho	68.5	177.5	51.1	53.1	50.1	44.1
Liberia	120.6	217.8	450.0	508.0	984.6	1 061.3
Madagascar	305.7	1 066.1	808.2	809.8	812.5	837.5
Malawi	85.2	49.1	97.0	128.8	129.5	118.4
Mali	137.9	748.3	405.9	556.1	397.9	410.3
Mauritania	237.6	-3.1	130.5	588.7	1 383.5	1 154.1
Mozambique	289.4	892.5	1 017.9	2 662.8	5 629.4	5 935.1
Myanmar	357.5	972.5	1 284.6	2 200.0	2 243.0	2 621.0
Nepal	3.5	38.6	86.7	95.5	92.0	73.6
Niger	68.4	790.8	940.3	1 065.8	841.3	631.4
Rwanda	29.3	118.7	42.3	106.2	159.8	110.8
Sao Tome and Principe	20.7	15.5	50.6	32.2	22.5	30.0
Senegal	140.3	320.0	266.1	338.2	276.2	298.3
Sierra Leone	47.2	110.8	238.4	950.5	548.5	579.1
Solomon Islands	24.0	119.8	237.9	146.4	68.3	105.3
Somalia	38.1	108.0	112.0	102.0	107.3	107.1
South Sudan	_	_	_	_	..	..
Sudan	_	_	_	_	2 487.6	3 094.4
Sudan (former)	1 600.3	2 572.2	2 894.4	2 691.7	_	_
Timor-Leste	10.4	49.9	28.5	47.1	18.2	19.8
Togo	53.2	48.5	85.8	727.8	93.8	84.2
Tuvalu	..	..	..	..	..	..
Uganda	395.5	841.6	543.9	894.3	1 205.4	1 145.9
United Republic of Tanzania	564.3	952.6	1 813.3	1 229.4	1 799.6	1 872.4
Vanuatu	33.2	31.7	41.1	58.2	37.7	34.8
Yemen	402.4	129.2	188.6	-518.4	-531.0	-133.6
Zambia	501.3	694.8	1 729.3	1 108.0	1 731.5	1 810.9
LDCs	**9 861.9**	**18 481.4**	**19 558.0**	**22 111.2**	**24 428.6**	**27 956.2**
African LDCs and Haiti	7 817.8	15 531.1	15 415.0	17 666.0	19 317.2	21 800.7
Asia LDCs	1 956.2	2 716.4	3 776.7	4 138.0	4 953.0	5 942.7
Island LDCs	87.8	233.9	366.3	307.2	158.3	212.8
ODCs	**343 629.9**	**514 098.7**	**628 649.6**	**702 728.7**	**705 020.6**	**750 416.1**

Source: UNCTAD, *UNCTADstat* (accessed August 2014).

Annex table 7. Migrant remittance inflows to LDCs, by country and country groups

	Millions of dollars						Per cent of GNI				
	2000-2008	2009	2010	2011	2012	2013e	2000-2008	2009	2010	2011	2012
Countries with remittances > 10 per cent of GNI in 2012											
Nepal	1 073	2 985	3 469	4 217	4 793	5 210	13.5	22.9	21.5	22.2	24.8
Liberia	32	25	31	360	360	383	7.3	2.5	2.8	25.3	22.8
Haiti	918	1 376	1 474	1 551	1 612	1 696	23.8	23.2	24.2	23.0	22.4
Lesotho	542	548	610	649	554	520	34.5	26.0	23.5	23.0	19.4
Gambia	40	80	116	108	141	181	6.1	9.1	12.6	12.5	15.9
Senegal	712	1 350	1 478	1 614	1 614	1 652	8.9	10.7	11.5	11.3	11.6
Bangladesh	4 328	10 521	10 850	12 071	14 120	13 776	7.1	10.8	9.9	9.9	11.1
Togo	176	335	337	337	337	363	9.2	11.9	12.2	10.5	10.1
Countries with remittances between 5 per cent and 10 per cent of GNI in 2012											
Mali	197	454	473	784	784	842	4.1	5.3	5.3	7.7	8.0
Guinea-Bissau	24	49	46	46	46	48	4.7	5.9	5.5	4.7	5.6
Countries with remittances < 5 per cent of GNI in 2012											
Uganda	394	781	771	816	910	1 042	4.7	5.4	4.9	5.4	4.7
Yemen	1 303	1 160	1 526	1 404	1 404	1 469	8.6	4.3	5.1	5.2	4.6
Vanuatu	14	11	12	22	22	22	3.8	2.0	1.7	2.8	3.0
Rwanda	30	93	106	174	182	237	1.2	1.8	1.9	2.7	2.6
Sao Tome and Principe	1	2	6	7	6	7	1.3	1.0	3.2	2.8	2.4
Djibouti	22	32	33	32	33	34	3.0	2.9	2.7	2.4	2.3
Benin	128	126	139	172	172	185	3.2	1.9	2.1	2.4	2.3
Timor-Leste	4	23	132	131	114	120	0.3	0.9	4.0	2.7	2.3
Niger	51	102	134	134	134	149	1.6	1.9	2.4	2.1	2.0
Solomon Islands	4	2	2	2	17	18	1.0	0.6	0.3	0.3	1.9
Cambodia	159	142	153	160	256	278	2.7	1.4	1.4	1.3	1.9
Afghanistan	12	152	331	247	385	385	0.2	1.2	2.1	1.3	1.9
Burundi	0	28	34	45	46	53	0.0	1.6	1.7	1.9	1.9
Sierra Leone	19	36	44	59	61	61	1.2	1.3	1.7	1.9	1.8
Mozambique	68	111	139	157	220	220	1.2	1.2	1.5	1.3	1.5
Ethiopia	153	262	345	513	624	656	1.2	0.8	1.2	1.6	1.5
Guinea	36	52	46	65	66	72	1.2	1.3	1.1	1.4	1.3
Burkina Faso	65	96	120	120	120	133	1.3	1.2	1.3	1.2	1.1
Bhutan	1	5	8	10	18	19	0.1	0.4	0.5	0.6	1.0
Sudan (former)	1 009	1 394	1 100	442	401	461	4.1	2.9	1.8	0.7	0.7
Malawi	12	17	22	25	28	29	0.4	0.3	0.4	0.5	0.7
Lao People's Dem. Rep.	4	38	42	110	59	64	0.1	0.7	0.6	1.4	0.7
Zambia	36	41	44	46	73	73	0.5	0.3	0.3	0.3	0.4
United Republic of Tanzania	17	40	55	78	67	75	0.1	0.2	0.2	0.3	0.2
Myanmar	101	54	115	127	127	127	0.8	0.2	0.3	0.2	0.2
Dem. Rep. of the Congo	5	20	16	115	12	14	0.0	0.1	0.1	0.5	0.0
Angola	9	0	18	0	0	0	0.0	0.0	0.0	0.0	0.0
Madagascar	10	..	..	..	..	..	0.2	..	..	..	..
LDCs	**11 708**	**22 542**	**24 376**	**26 953**	**29 922**	**30 673**	**4.0**	**4.1**	**4.0**	**3.9**	**4.0**
African LDCs and Haiti	4 705	7 446	7 731	8 444	8 601	9 179	2.7	2.2	2.1	2.0	1.9
Asia LDCs	6 979	15 057	16 493	18 347	21 161	21 328	6.2	7.5	7.1	6.9	7.5
Island LDCs	23	39	152	161	159	166	0.8	0.8	2.5	2.0	1.9
ODCs	**155 120**	**256 150**	**285 481**	**319 634**	**334 243**	**342 546**	**1.6**	**1.6**	**1.4**	**1.4**	**1.4**

Source: World Bank staff calculation based on data from IMF, *Balance of Payments* database and data releases from central banks, national statistical agencies and World Bank country desks. http://www.worldbank.org/migration; Date: April 2013 and Development Brief 12 for the methodology for the forecasts.

Notes: LDC aggregates exclude missing data for Central African Republic, Chad, Comoros, Equatorial Guinea, Eritrea, Kiribati, Mauritania, Somalia, South Sudan, Tuvalu.

Annex table 8. Selected indicators on debt burden in LDCs

	Total debt stock as per cent of GNI				Total debt stock as per cent of exports				Total debt service as per cent of exports			
	2000-2008	*2010*	*2011*	*2012*	*2000-2008*	*2010*	*2011*	*2012*	*2000-2008*	*2010*	*2011*	*2012*
Countries with debt >100 per cent GNI												
Somalia	156.5	296.2	298.1	243.7	..	..	..	..	..	..	..	..
Countries with debt between 50 per cent and 100 per cent GNI in 2012												
Mauritania	117.0	78.5	72.0	88.9	102.3	117.3	91.8	114.9	5.5	4.9	3.9	4.9
Bhutan	70.5	59.9	59.6	82.5	137.5	145.2	137.8	205.2	6.5	13.5	10.8	17.8
Sao Tome and Principe	297.9	90.1	93.1	77.2	1709.8	690.1	739.7	654.8	27.8	6.0	5.0	6.9
Lao People's Dem. Republic	127.5	84.2	80.4	72.7	447.2	245.0	251.2	218.4	16.0	13.2	11.5	8.2
Gambia	96.1	55.6	55.0	57.9	318.7	179.8	149.2	149.2	13.9	8.1	7.9	7.1
Djibouti	64.2	63.9	58.7	55.6	164.9	175.3	176.2	165.6	6.7	8.1	8.6	8.8
Countries with debt <50 per cent GNI												
Vanuatu	33.9	25.5	26.4	49.5	60.7	47.4	50.9	89.2	1.7	1.6	1.6	2.1
Cambodia	59.2	36.0	36.1	42.6	98.4	68.6	59.1	66.2	1.0	1.2	1.2	1.5
Comoros	83.9	51.9	45.7	42.2	430.4	308.2	270.7	..	12.1	4.7	3.8	..
United Republic of Tanzania	53.5	39.8	42.1	41.8	276.7	137.6	131.1	133.5	4.8	3.0	1.9	1.9
Sudan (former)	88.3	37.2	34.5	38.8	522.7	188.6	201.3	481.2	8.2	4.2	5.1	8.9
Senegal	51.2	30.5	30.3	35.3	173.9	114.7	107.4	..	11.0	8.9	9.0	..
Niger	59.7	27.5	35.5	35.2	341.3	117.2	..	..	8.9	2.0	..	..
Guinea-Bissau	229.4	135.2	29.3	34.0	1187.5	614.0	..	..	8.5	9.5	..	..
Mozambique	90.4	40.6	33.2	33.4	324.7	120.4	102.6	93.4	5.2	2.8	1.4	1.6
Sierra Leone	100.2	35.7	34.6	32.6	850.2	218.3	191.8	83.1	26.9	2.7	3.4	1.5
Eritrea	67.1	49.7	40.8	32.4	308.5	..	..	..	4.3	..	..	..
Malawi	98.1	19.9	21.8	31.8	405.9	84.9	73.7	94.0	8.5	1.7	1.4	2.0
Mali	68.6	27.4	28.7	31.3	225.7	98.3	103.3	..	6.9	2.5	2.4	..
Liberia	879.9	37.6	31.6	30.8	842.4	97.3	33.2	..	47.1	1.4	0.2	..
Madagascar	73.4	31.3	28.6	30.3	266.0	163.3	140.9	..	5.2	3.7	2.1	..
Lesotho	46.5	29.9	28.2	30.1	57.0	46.5	40.7	51.9	5.5	2.1	2.0	2.3
Benin	37.5	24.6	25.8	27.4	173.4	93.7	..	..	6.4	3.3	..	..
Burundi	127.9	30.6	25.6	26.9	1945.8	338.6	246.4	277.3	49.1	2.4	4.2	8.5
Zambia	114.0	29.8	27.4	26.6	343.6	57.1	54.7	54.4	16.1	1.9	2.2	2.2
Central African Republic	81.7	31.0	25.0	25.4	..	..	..	..	..	..	..	..
Solomon Islands	42.1	45.4	37.3	25.4	144.4	66.4	44.2	34.3	7.9	6.0	2.6	4.5
Yemen	42.3	22.3	23.7	24.5	102.3	71.7	64.4	..	4.2	2.8	2.8	..
Ethiopia	52.4	25.1	27.5	24.5	365.5	157.9	147.7	174.3	8.0	3.9	6.1	7.2
Burkina Faso	37.5	23.6	23.2	23.4	359.8	109.7	..	..	10.1	2.5	..	..
Togo	93.0	46.5	19.7	22.6	237.5	92.0	..	..	5.1	2.6	..	..
Dem. Republic of the Congo	102.2	31.6	24.6	21.9	274.7	69.6	53.4	63.9	8.1	3.1	2.5	3.2
Angola	65.2	25.5	22.4	21.6	72.2	36.8	30.9	30.7	15.2	4.5	4.2	5.9
Guinea	102.0	72.7	67.9	21.0	337.0	201.9	205.4	51.8	14.6	4.7	11.2	7.0
Bangladesh	30.9	23.5	22.4	20.5	190.7	118.3	100.7	94.1	7.9	4.7	5.5	5.4
Nepal	42.8	23.5	20.2	19.7	240.5	212.5	178.1	175.4	9.0	10.6	9.2	10.3
Uganda	46.7	18.9	21.5	19.3	332.8	86.7	76.3	79.2	7.5	1.8	1.5	1.4
Rwanda	57.1	16.4	17.4	18.0	618.6	142.9	118.3	123.5	11.6	2.3	2.1	2.2
Haiti	38.3	16.2	11.6	16.0	249.9	118.0	73.8	103.6	9.9	15.7	0.5	0.3
Chad	62.7	17.6	15.4	15.0	..	..	..	..	..	..	..	..
Afghanistan	17.3	15.1	13.6	13.3	110.3	61.8	61.1	63.9	0.4	0.3	0.3	0.3
Myanmar	57.5	18.8	14.0	4.3	185.3	99.2	90.7	..	0.9	7.2	0.1	..
LDCs	**59.0**	**28.8**	**26.5**	**25.3**	**205.0**	**94.7**	**82.6**	**81.2**	**9.3**	**4.2**	**4.3**	**5.2**
African LDCs and Haiti	72.7	31.6	29.1	28.7	231.4	87.1	74.6	71.5	11.0	4.1	4.0	5.0
Asia LDCs	39.7	24.5	22.5	20.0	168.1	121.3	108.0	112.4	6.2	5.0	5.3	6.0
Island LDCs	72.6	44.9	41.9	42.0	222.6	134.0	136.6	136.4	6.3	2.5	2.3	2.5
ODCs	**27.4**	**18.1**	**17.8**	**18.7**	**56.0**	**43.6**	**39.9**	**42.0**	**15.3**	**8.1**	**7.5**	**7.7**

Source: UNCTAD secretariat based on data from World Bank, *World Development Indicators* database (accessed September 2014).
Notes: LDC aggregates exclude missing data for Equatorial Guinea, Kiribati, South Sudan, Timor Leste, Tuvalu; Afghanistan from 2000 to 2005.

Annex table 9. Indicators on area and population, 2012

Country	Area			Population			
	Land area	Per cent of arable land and land under permanent crops	Per cent of land area covered by forest	Density	Urban	Labour force	
	Thousand square kilometers			*Population per square kilometer of land area*	*Per cent*	*Agricultural*	*Non-agricultural*
Afghanistan	652.9	12.1	2.1	46	23.8	19 695	13 702
Angola	1 246.7	4.2	46.7	17	60.0	13 858	6 304
Bangladesh	130.2	65.5	11.0	1188	28.9	66 240	86 169
Benin	112.8	27.9	39.6	89	45.6	3 964	5 388
Bhutan	38.1	3.0	85.8	19	36.4	696	54
Burkina Faso	273.6	22.2	20.2	60	27.4	16 087	1 395
Burundi	25.7	56.5	6.6	384	11.2	7 779	971
Cambodia	176.5	24.1	55.7	84	20.1	9 416	5 062
Central African Republic	623.0	3.0	36.2	7	39.3	2 801	1 775
Chad	1 259.2	3.9	9.0	10	21.9	7 499	4 331
Comoros	1.9	76.8	1.2	386	28.1	529	244
Democratic Republic of the Congo	2 267.1	3.4	67.7	29	34.8	39 122	30 454
Djibouti	23.2	0.1	0.2	37	77.1	675	248
Equatorial Guinea	28.1	6.4	57.1	26	39.7	468	272
Eritrea	101.0	6.9	15.1	61	21.8	4 078	1 503
Ethiopia	1 000.0	16.5	12.0	92	17.2	65 983	20 556
Gambia	10.1	44.0	47.8	177	57.8	1 375	450
Guinea	245.7	15.1	26.3	47	35.9	8 267	2 213
Guinea-Bissau	28.1	19.6	71.2	59	44.6	1 243	337
Haiti	27.6	46.4	3.6	369	54.8	5 916	4 339
Kiribati	0.8	42.0	15.0	125	43.6	23	80
Lao People's Democratic Republic	230.8	7.0	67.6	29	35.4	4 752	1 622
Lesotho	30.4	9.4	1.5	68	28.3	848	1 369
Liberia	96.3	7.4	44.3	44	48.5	2 582	1 662
Madagascar	581.8	7.1	21.4	38	33.2	15 152	6 776
Malawi	94.3	41.2	33.6	169	15.8	11 399	4 484
Mali	1 220.2	5.7	10.1	12	35.6	12 011	4 308
Mauritania	1 030.7	0.4	0.2	4	41.7	1 807	1 816
Mozambique	786.4	7.6	49.1	32	31.4	18 462	6 013
Myanmar	653.3	18.8	47.7	81	33.2	32 352	16 373
Nepal	143.4	16.2	25.4	192	17.3	28 797	2 214
Niger	1 266.7	12.6	0.9	14	18.1	13 695	2 950
Rwanda	24.7	58.0	18.4	464	19.4	10 035	1 237
Sao Tome and Principe	1.0	50.7	28.1	196	63.3	96	75
Senegal	192.5	17.7	43.6	71	42.8	9 117	3 991
Sierra Leone	72.2	26.3	37.2	83	39.6	3 610	2 516
Solomon Islands	28.0	3.5	78.7	20	20.9	379	187
Somalia	627.3	1.8	10.5	16	38.2	6 331	3 466
South Sudan	..	..	..	17	29.8	..	..
Sudan	..	..	..	20	29.8	..	..
Sudan (former)	2 376.0	10.1	29.3	–	–	22 563	22 069
Timor-Leste	14.9	15.7	48.4	75	28.7	940	247
Togo	54.4	52.4	4.9	122	38.5	3 276	3 007
Tuvalu	0.0	60.0	33.3	333	50.0	3	7
Uganda	199.8	45.8	14.1	182	16.0	25 727	9 894
United Republic of Tanzania	885.8	18.8	36.8	54	27.2	34 399	13 258
Vanuatu	12.2	11.9	36.1	20	25.1	74	178
Yemen	528.0	2.9	1.0	45	32.9	9 409	16 160
Zambia	743.4	5.2	66.1	19	39.6	8 607	5 277
LDCs	**20 166.06**	**10.9**	**29.5**	**44**	**28.9**	**552 137**	**317 003**
African LDCs and Haiti	17 554.6	10.3	29.9	32	29.4	378 736	174 629
Asia LDCs	2 553.1	15.1	26.2	122	28.1	171 357	141 356
Island LDCs	58.7	12.0	58.0	50	29.6	2 044	1 018
ODCs	**56 297.2**	**13.8**	**28.4**	**86**	**50.4**	**2 002 588**	**2 835 901**

Sources: FAO, *FAOSTAT* database (accessed September 2014); UN/DESA, Population Division; World Bank, *World Development Indicators* database (accessed September 2014).
Notes: Land area: country area excluding inland water.

Annex table 10. Selected indicators on education, 2012*

Country	Primary completion rate (Per cent of primary school-age population)			Net primary school enrollment rate (Per cent)			Youth literacy rate (Per cent of people aged 15-24)		
	Female	*Male*	*Total*	*Female*	*Male*	*Total*	*Female*	*Male*	*Total*
Afghanistan							32.1	61.9	47.0
Angola	39.8	68.8	54.3	74.5	96.8	85.7	66.4	79.8	73.0
Bangladesh	79.8	69.5	74.6	93.3	89.8	91.5	81.9	78.0	79.9
Benin	62.7	78.3	70.5	88.2	99.9	94.9	30.8	54.9	42.4
Bhutan	103.4	99.1	101.3	91.9	89.3	90.6	68.0	80.0	74.4
Burkina Faso	56.2	58.9	57.6	64.6	68.1	66.4	33.1	46.7	39.3
Burundi	62.9	61.5	62.2	93.9	94.0	94.0	88.1	89.6	88.9
Cambodia	98.6	97.7	98.1	97.0	99.7	98.4	85.9	88.4	87.1
Central African Republic	35.2	55.6	45.3	63.3	80.6	71.9	27.0	48.9	36.4
Chad	27.0	43.4	35.3	55.0	71.0	63.1	44.0	53.8	48.9
Comoros	69.8	89.5	79.8	80.1	86.4	83.3	86.5	86.3	86.4
Dem. Republic of the Congo	62.1	83.5	72.8				53.3	78.9	65.8
Djibouti	51.7	53.3	52.5	54.4	61.2	57.8			
Equatorial Guinea	55.3	54.3	54.8	60.8	61.1	61.0	98.5	97.7	98.1
Eritrea	28.3	34.0	31.2	30.6	35.2	32.9	88.7	93.2	91.0
Ethiopia	41.9	52.8	47.4	64.9	70.9	67.9	47.0	63.0	55.0
Gambia	70.5	70.2	70.3	73.0	68.8	70.9	65.5	73.4	69.4
Guinea	55.1	67.8	61.5	68.8	79.9	74.4	21.8	37.6	31.4
Guinea-Bissau	56.7	71.3	64.0	68.2	71.4	69.8	68.9	79.7	74.3
Haiti	..	..	..	..	..	..	70.5	74.4	72.3
Kiribati	116.2	114.1	115.2	..	..	..	..	..	..
Lao People's Dem. Republic	93.3	96.9	95.1	94.9	96.8	95.9	78.7	89.2	83.9
Lesotho	81.6	63.5	72.5	83.2	80.1	81.6	92.1	74.2	83.2
Liberia	59.7	70.5	65.2	39.5	41.7	40.6	37.2	63.5	49.1
Madagascar	70.9	68.2	69.5				64.0	65.9	64.9
Malawi	74.7	73.8	74.2	96.0	89.6	96.9	70.0	74.3	72.1
Mali	54.0	63.1	58.7	64.3	73.0	68.7	39.0	56.3	47.1
Mauritania	69.3	68.1	68.7	72.1	67.1	69.6	47.7	66.4	56.1
Mozambique	48.1	56.3	52.2	83.9	88.6	86.2	56.5	79.8	67.1
Myanmar	96.8	93.2	95.0				95.8	96.2	96.0
Nepal	105.8	96.6	101.0	97.2	97.7	98.5	77.5	89.2	82.4
Niger	43.1	55.3	49.3	57.1	68.2	62.8	15.1	34.5	23.5
Rwanda	61.5	53.9	57.7	89.9	87.2	98.7	78.0	76.7	77.3
Sao Tome and Principe	119.7	115.2	117.4	96.7	96.1	96.4	77.3	83.1	80.2
Senegal	63.1	57.9	60.5	76.1	70.6	73.3	59.0	74.0	66.0
Sierra Leone	70.7	74.0	72.4				53.8	71.6	62.7
Solomon Islands	86.1	84.8	85.4	79.3	82.1	80.7	..	..	..
Somalia	..	..	..	..	..	..	..	..	..
South Sudan	27.5	47.1	37.4	34.3	48.2	41.3	..	..	..
Sudan	..	..	..	..	..	..	..	..	..
Timor-Leste	71.9	70.2	71.0	90.2	92.0	91.1	78.6	80.5	79.5
Togo	68.8	86.0	77.4	85.3	95.6	90.4	72.7	86.9	79.9
Tuvalu	109.2	89.3	99.2						
Uganda	52.5	53.7	53.1	92.1	89.7	90.9	85.5	89.6	87.4
United Republic of Tanzania	84.7	76.8	80.8	97.3	97.8	97.6	72.8	76.5	74.6
Vanuatu	86.8	80.9	83.6			98.9	95.1	94.7	94.9
Yemen	60.2	79.1	69.8	78.5	93.7	86.3	77.8	96.7	87.4
Zambia	90.9	91.6	91.3	94.4	93.0	93.7	58.5	70.3	64.0
LDCs	**62.8**	**66.1**	**64.5**	**80.9**	**84.4**	**83.0**	**66.0**	**75.3**	**70.5**
African LDCs and Haiti	55.3	61.6	58.5	76.7	81.2	79.4	57.3	70.2	63.5
Asia LDCs	82.1	77.3	79.6	92.0	92.3	92.3	78.9	82.6	80.7
Island LDCs	77.8	81.1	79.8	86.1	89.0	88.5	82.6	83.9	83.2
ODCs	**87.3**	**89.9**	**92.5**	**84.3**	**87.3**	**89.3**	**88.2**	**93.6**	**90.9**

Sources: UNESCO, UIS database (accessed September 2014); World Bank, *World Development Indicators* database (accessed September 2014).
Notes: * 2012 or latest year available since 2005; LDC groups and ODCs weighted averages (weighted by primary school age population and by group age population).

Annex table 11. Employment by sector in LDCs, selected years
(Per cent of total employment)

	Agriculture			Industry			Services		
	1991	*2000*	*2012*	*1991*	*2000*	*2012*	*1991*	*2000*	*2012*
Afghanistan	63.1	59.5	52.8	9.8	11.0	13.8	27.1	29.5	33.4
Angola	47.4	51.4	37.1	14.1	8.3	10.7	38.5	40.3	52.2
Bangladesh	69.3	64.5	54.4	13.6	10.7	13.7	17.1	24.8	32.0
Benin	47.9	45.3	43.6	10.4	10.0	8.2	41.7	44.7	48.3
Bhutan	83.8	81.2	59.6	1.9	2.4	9.0	14.3	16.4	31.4
Burkina Faso	89.9	86.6	83.6	3.3	3.4	2.6	6.8	10.0	13.8
Burundi	89.6	92.0	92.0	3.4	2.2	2.0	7.0	5.8	6.0
Cambodia	79.1	73.7	51.0	5.7	8.4	18.6	15.2	17.9	30.4
Central African Republic	70.6	71.7	72.2	5.0	4.6	4.1	24.4	23.7	23.7
Chad	81.8	83.2	77.6	2.6	2.1	3.6	15.5	14.7	18.7
Comoros	62.9	64.3	65.5	10.7	10.3	9.7	26.4	25.5	24.8
Democratic Republic of the Congo	75.9	83.8	80.8	4.9	2.3	2.5	19.2	14.0	16.7
Djibouti	..	..	..	..	..	..	..	..	..
Equatorial Guinea	44.9	43.0	32.3	16.8	16.4	22.7	38.3	40.6	45.0
Eritrea	78.9	74.8	78.0	6.3	7.6	5.6	14.8	17.6	16.4
Ethiopia	91.1	85.8	75.4	2.0	3.8	9.4	6.9	10.4	15.2
Gambia	64.6	64.7	64.2	7.0	5.1	3.7	28.4	30.2	32.1
Guinea	74.9	74.5	73.7	6.7	6.4	5.6	18.4	19.2	20.7
Guinea-Bissau	63.7	67.7	67.0	10.0	6.5	4.5	26.3	25.8	28.5
Haiti	65.1	49.1	44.1	9.2	11.2	11.9	25.6	39.8	44.0
Kiribati	..	..	..	..	..	..	..	..	..
Lao People's Democratic Republic	86.4	83.3	74.6	3.2	4.0	6.3	10.4	12.7	19.1
Lesotho	74.5	72.0	66.6	9.7	9.5	9.6	15.8	18.5	23.9
Liberia	81.4	55.9	46.4	1.7	7.6	10.3	16.9	36.5	43.4
Madagascar	73.6	76.1	81.1	11.2	8.7	2.7	15.2	15.2	16.2
Malawi	74.1	73.0	70.8	9.9	9.5	10.4	16.0	17.4	18.8
Mali	71.6	69.5	66.1	6.1	5.7	5.2	22.4	24.8	28.7
Mauritania	57.8	57.8	52.8	10.2	10.0	11.6	32.0	32.1	35.6
Mozambique	84.1	82.1	75.7	3.1	2.9	4.7	12.8	14.9	19.7
Myanmar	69.4	61.2	58.4	9.1	12.8	14.1	21.5	26.0	27.5
Nepal	78.7	75.0	71.3	9.0	10.3	11.6	12.3	14.7	17.1
Niger	55.1	56.6	57.5	12.5	11.4	10.7	32.3	32.0	31.8
Rwanda	81.7	82.6	74.7	5.0	3.4	5.1	13.3	14.0	20.2
Sao Tome and Principe	..	..	..	..	..	..	..	..	..
Senegal	53.7	50.1	35.8	12.1	12.7	17.0	34.1	37.2	47.2
Sierra Leone	64.0	68.7	61.2	7.3	5.2	7.2	28.7	26.1	31.6
Solomon Islands	54.0	53.2	49.9	12.6	11.5	13.3	33.4	35.3	36.8
Somalia	79.5	76.7	75.3	4.0	4.4	4.0	16.5	18.9	20.6
South Sudan	..	..	..	..	..	..	..	..	..
Sudan	56.7	55.0	52.2	6.3	7.4	8.4	37.0	37.6	39.5
Timor-Leste	73.3	53.8	48.0	5.7	8.5	10.1	21.0	37.7	41.9
Togo	54.5	54.2	53.8	9.8	8.2	6.7	35.7	37.6	39.5
Tuvalu	..	..	..	..	..	..	..	..	..
Uganda	73.7	71.2	61.8	3.4	5.4	7.3	22.9	23.4	30.8
United Republic of Tanzania	84.1	82.4	72.8	4.1	2.8	5.4	11.8	14.9	21.8
Vanuatu	..	..	..	..	..	..	..	..	..
Yemen	51.0	48.8	44.2	13.0	12.3	14.0	36.0	38.9	41.8
Zambia	64.7	72.1	71.4	10.5	5.5	9.8	24.8	22.4	18.8
LDCs	**52.6**	**46.2**	**33.8**	**20.1**	**20.5**	**26.1**	**27.2**	**33.2**	**40.1**
African LDCs and Haiti	73.9	71.1	64.4	8.1	7.6	9.7	18.0	21.3	26.0
Asia LDCs	76.2	75.4	69.7	5.7	5.2	6.8	18.1	19.4	23.5
Island LDCs	71.0	67.0	59.3	7.7	9.1	11.9	21.3	23.9	28.8
ODCs	**66.5**	**56.1**	**52.5**	**8.5**	**9.6**	**10.7**	**25.1**	**34.3**	**36.7**

Source: ILO, *Global Employment Trends 2014* database.
Notes: LDC aggregates exclude missing data for Djibouti, Kiribati, Sao Tome and Principe, South Sudan, Tuvalu and Vanuatu.

Annex table 12. Total merchandise exports: Levels and annual average growth rates

	Total merchandise exports (Millions of dollars)					Annual average growth rates (Per cent)				
	2000-2008	*2009-2013*	*2011*	*2012*	*2013*	*2000-2008*	*2008-2013*	*2011*	*2012*	*2013*
Afghanistan	283	419	376	429	500	28.4	-0.7	-3.3	14.1	16.6
Angola	23 339	59 725	67 310	71 093	68 800	34.3	6.8	33.0	5.6	-3.2
Bangladesh	9 298	23 843	25 793	26 519	30 726	13.7	15.2	27.3	2.8	15.9
Benin	663	1 180	1 144	1 100	1 150	16.0	-2.8	-10.7	-3.9	4.5
Bhutan	278	579	675	554	530	29.0	1.3	5.2	-17.8	-4.4
Burkina Faso	427	1 814	2 312	2 146	2 123	18.2	27.8	45.9	-7.2	-1.1
Burundi	49	105	123	134	99	5.7	15.3	22.0	8.1	-25.7
Cambodia	2 751	6 686	6 704	7 838	9 100	16.5	17.8	19.9	16.9	16.1
Central African Republic	147	158	190	200	140	0.9	4.4	35.7	5.3	-30.0
Chad	1 957	4 060	4 800	4 600	4 500	61.7	6.4	33.3	-4.2	-2.2
Comoros	15	21	25	19	25	-9.0	24.3	22.1	-25.1	32.7
Dem. Republic of the Congo	2 080	5 600	6 600	6 300	6 300	23.9	11.4	24.5	-4.5	0.0
Djibouti	43	99	93	118	120	9.4	13.2	8.9	27.3	1.7
Equatorial Guinea	5 894	12 420	13 500	15 500	14 000	38.3	4.3	35.0	14.8	-9.7
Eritrea	19	246	418	467	321	-13.2	147.7	3207.7	11.6	-31.2
Ethiopia	821	2 491	2 615	2 891	3 000	18.2	15.3	12.2	10.6	3.8
Gambia	11	77	95	100	90	-0.2	39.6	170.8	5.6	-10.0
Guinea	880	1 397	1 527	1 386	1 386	9.7	1.3	-2.6	-9.3	0.0
Guinea-Bissau	79	170	242	150	210	9.6	11.3	91.2	-38.0	40.0
Haiti	400	733	772	821	906	9.1	13.6	32.4	6.3	10.4
Kiribati	6	6	9	6	7	17.7	-8.0	120.8	-32.4	29.0
Lao People's Dem. Republic	567	1 977	2 216	2 269	2 600	19.4	21.7	26.9	2.4	14.6
Lesotho	560	939	1 172	972	940	18.6	4.2	33.6	-17.0	-3.3
Liberia	175	344	367	444	540	0.2	24.9	65.3	21.1	21.5
Madagascar	958	1 423	1 472	1 516	1 950	7.2	9.8	36.0	3.0	28.6
Malawi	564	1 220	1 425	1 214	1 208	11.4	5.7	33.7	-14.8	-0.5
Mali	1 118	2 256	2 374	2 610	2 600	15.0	8.9	18.9	9.9	-0.4
Mauritania	727	2 294	2 776	2 624	2 633	25.4	14.2	33.9	-5.5	0.3
Mozambique	1 513	3 375	3 604	4 100	4 024	26.9	12.8	20.1	13.8	-1.9
Myanmar	3 795	8 751	9 238	8 877	10 300	18.3	8.5	6.7	-3.9	16.0
Nepal	802	883	908	899	849	4.7	-2.2	3.8	-0.9	-5.6
Niger	453	1 300	1 250	1 500	1 600	15.3	12.5	8.7	20.0	6.7
Rwanda	118	437	417	591	620	19.7	23.3	40.4	41.6	5.0
Sao Tome and Principe	6	11	11	12	12	16.4	5.4	1.0	10.2	-1.4
Senegal	1 370	2 356	2 542	2 532	2 530	9.9	4.7	17.6	-0.4	-0.1
Sierra Leone	131	828	350	1 112	2 106	42.7	58.5	2.3	217.4	89.4
Solomon Islands	104	346	417	492	439	18.8	23.9	91.2	17.8	-10.8
Somalia	276	497	520	540	540	6.5	6.0	15.6	3.8	0.0
Sudan	..	5 063[a]	..	3 384	6 742	..	99.2[a]	..	..	99.2
Sudan (former)	4 653	9 864[b]	8 982	_	_	29.0	-5.3[b]	-22.1	..	..
Timor-Leste	9[c]	17	13	31	16	8.5[c]	14.4	-19.5	133.2	-47.9
Togo	574	991	1 100	1 050	1 002	10.9	4.3	22.2	-4.5	-4.5
Tuvalu	0	0	0	0	0	27.8	6.0	0.0	0.0	0.0
Uganda	816	2 022	2 159	2 357	2 408	20.0	9.5	33.4	9.2	2.1
United Republic of Tanzania	1 525	4 473	4 735	5 547	5 050	20.5	13.5	16.9	17.2	-9.0
Vanuatu	35	51	64	52	38	15.6	-5.5	37.6	-18.7	-26.9
Yemen	4 911	8 332	9 700	8 100	9 500	11.6	6.1	19.8	-16.5	17.3
Zambia	2 299	8 094	9 001	9 365	10 594	28.3	19.4	25.0	4.0	13.1
LDCs	**77 499**	**182 991**	**202 137**	**204 561**	**214 875**	**23.2**	**8.4**	**23.3**	**1.2**	**5.0**
African LDCs and Haiti	54 643	131 069	145 989	148 464	150 232	27.8	7.0	24.4	1.7	1.2
Asia LDCs	22 685	51 470	55 609	55 485	64 105	14.2	12.3	20.2	-0.2	15.5
Island LDCs	172	453	539	611	537	15.9	17.9	70.3	13.3	-12.1
ODCs	**3 420 231**	**7 005 517**	**7 695 758**	**8 003 462**	**8 213 390**	**17.1**	**9.5**	**23.1**	**4.0**	**2.6**

Source: UNCTAD, *UNCTADstat* database (accessed September 2014).
Notes: *a* Sudan: 2012-2013 data; *b* Former Sudan : data up to 2011; *c* Timor-Leste: data since 2003.
No data available for South Sudan.

Annex table 13. Total merchandise imports: Levels and annual average growth rates

	Total merchandise imports (Millions of dollars)					Annual average growth rates (Per cent)				
	2000-2008	2009-2013	2011	2012	2013	2000-2008	2008-2013	2011	2012	2013
Afghanistan	2 318	5 297	6 390	6 205	5 400	10.3	15.3	24.0	-2.9	-13.0
Angola	8 118	21 554	20 228	23 717	24 500	26.7	3.2	21.4	17.2	3.3
Bangladesh	12 912	29 645	34 319	32 375	34 478	13.1	11.2	30.2	-5.7	6.5
Benin	1 137	2 078	2 101	2 020	2 150	19.3	-1.0	2.3	-3.8	6.4
Bhutan	341	892	1 052	986	1 040	16.9	16.4	23.2	-6.3	5.5
Burkina Faso	1 131	2 595	2 406	3 150	3 500	15.3	14.9	17.5	30.9	11.1
Burundi	239	645	752	751	811	17.1	17.9	47.9	-0.2	8.0
Cambodia	3 638	9 184	9 300	11 000	13 000	17.3	17.6	37.0	18.3	18.2
Central African Republic	172	290	310	320	250	13.9	-1.0	3.3	3.2	-21.9
Chad	1 164	2 620	2 700	3 000	3 000	18.3	10.1	12.5	11.1	0.0
Comoros	91	256	277	273	285	18.5	11.3	18.9	-1.2	4.3
Dem. Republic of the Congo	2 153	5 260	5 500	6 100	6 300	26.9	10.4	22.2	10.9	3.3
Djibouti	299	487	511	538	560	13.4	2.4	36.6	5.4	4.1
Equatorial Guinea	1 536	6 280	6 500	7 500	7 000	28.4	12.9	25.0	15.4	-6.7
Eritrea	489	826	934	954	1 013	2.2	13.9	43.9	2.1	6.2
Ethiopia	3 780	9 877	8 896	11 913	12 000	26.3	8.5	3.4	33.9	0.7
Gambia	227	337	344	402	350	11.0	4.2	20.6	17.1	-13.0
Guinea	854	1 795	2 106	2 254	2 150	11.5	15.1	49.9	7.0	-4.6
Guinea-Bissau	105	202	230	199	218	18.5	2.3	29.0	-13.2	9.1
Haiti	1 424	2 997	3 045	3 196	3 429	10.0	9.2	-4.0	5.0	7.3
Kiribati	57	90	92	109	112	9.0	11.1	25.5	18.3	3.2
Lao People's Dem. Republic	787	2 257	2 398	2 467	2 900	15.1	16.5	16.4	2.9	17.5
Lesotho	1 253	2 310	2 500	2 600	2 300	12.8	6.9	8.7	4.0	-11.5
Liberia	408	918	1 044	1 076	1 210	9.9	13.3	47.1	3.1	12.4
Madagascar	1 714	2 991	2 957	3 094	3 200	18.5	-2.4	16.1	4.6	3.4
Malawi	1 051	2 453	2 428	2 797	2 845	17.9	7.0	11.7	15.2	1.7
Mali	1 583	3 286	3 352	3 463	3 700	17.4	4.3	-2.2	3.3	6.9
Mauritania	956	2 308	2 453	2 971	3 055	22.0	15.4	42.1	21.1	2.8
Mozambique	2 210	5 889	6 306	6 177	8 600	17.5	17.4	37.1	-2.0	39.2
Myanmar	2 682	7 782	9 019	9 181	11 600	4.9	25.1	89.5	1.8	26.3
Nepal	2 170	5 649	5 916	6 212	6 619	12.2	12.9	15.6	5.0	6.5
Niger	797	1 961	1 917	1 685	1 714	20.1	-2.6	-16.3	-12.1	1.7
Rwanda	462	1 933	2 039	2 408	2 480	21.5	18.4	42.5	18.1	3.0
Sao Tome and Principe	54	128	134	141	152	18.7	7.6	19.2	5.6	7.7
Senegal	3 235	5 694	5 909	6 434	6 630	19.0	3.6	23.6	8.9	3.0
Sierra Leone	322	1 204	1 714	1 569	1 448	15.4	29.7	122.9	-8.4	-7.7
Solomon Islands	164	434	466	493	523	20.6	14.1	11.0	5.9	5.9
Somalia	619	1 058	1 200	1 200	1 300	12.7	11.0	42.9	0.0	8.3
Sudan	_	9 650[a]	_	9 230	10 070	..	9.1[a]	_	_	9.1
Sudan (former)	5 253	9 761[b]	9 546	_	_	28.7	1.0[b]	-5.0	_	_
Timor-Leste	149[c]	441	297	618	785	11.0[c]	27.2	29.4	108.3	26.9
Togo	917	1 812	1 950	2 000	2 002	14.1	7.3	21.9	2.6	0.1
Tuvalu	12	20	25	30	16	21.7	0.7	56.3	20.0	-46.7
Uganda	2 214	5 281	5 631	6 044	5 818	15.8	7.4	20.7	7.3	-3.7
United Republic of Tanzania	3 501	9 994	11 184	11 716	12 525	23.3	13.0	39.6	4.8	6.9
Vanuatu	155	279	281	273	286	18.3	-1.0	1.7	-2.6	4.6
Yemen	5 103	10 447	10 034	11 260	12 500	21.3	4.5	8.4	12.2	11.0
Zambia	2 389	7 052	7 178	8 805	10 162	25.1	19.8	34.9	22.7	15.4
LDCs	**82 295**	**196 506**	**205 869**	**220 908**	**235 984**	**18.1**	**9.7**	**23.1**	**7.3**	**6.8**
African LDCs and Haiti	51 711	123 703	125 870	139 284	146 288	20.9	7.9	19.2	10.7	5.0
Asia LDCs	29 952	71 155	78 428	79 686	87 537	13.7	12.8	29.9	1.6	9.9
Island LDCs	633	1 649	1 571	1 939	2 159	21.2	13.1	15.6	23.4	11.4
ODCs	**3 089 958**	**6 524 481**	**7 120 752**	**7 440 498**	**7 713 740**	**16.4**	**10.0**	**21.8**	**4.5**	**3.7**

Source: UNCTAD, *UNCTADstat* database (accessed September 2014).
Notes: *a* Sudan: 2012-2013 data; *b* Former Sudan : data up to 2011; *c* Timor-Leste: data since 2003.
No data available for South Sudan.

Annex table 14. Merchandise exports of LDCs, Share of total exports
(Per cent, average, 2011–2013)

	Total exports	Primary commodities				Manufactured goods					Un-allocated
		Total	Food and agri-culture	Fuels	Minerals, ores, metals	Total	Labour-intensive and resource-intensive manu-factures	Low-skill and technology-intensive manu-factures	Medium-skill and technology-intensive manu-factures	High-skill and technology-intensive manu-factures	
	($ millions)	*(Per cent)*									
Afghanistan	434.9	71.5	53.2	7.0	11.3	11.7	5.4	0.5	2.5	3.2	16.8
Angola	69 067.9	99.7	0.0	98.3	1.4	0.3	0.0	0.1	0.1	0.1	0.0
Bangladesh	27 679.2	8.2	7.0	0.7	0.5	91.6	87.1	0.8	1.0	2.6	0.2
Benin	1 131.4	90.2	53.1	16.2	20.9	9.8	1.8	3.6	2.3	2.0	0.0
Bhutan	586.3	38.4	9.2	11.8	17.4	61.3	5.1	41.5	1.0	13.7	0.2
Burkina Faso	2 194.1	94.7	47.5	0.0	47.1	5.3	1.5	0.7	1.6	1.5	0.0
Burundi	118.7	81.0	62.4	0.7	17.9	18.1	3.7	1.3	6.7	6.5	0.9
Cambodia	7 880.7	13.6	10.7	0.0	2.9	86.1	78.1	3.2	1.7	3.2	0.3
Central African Republic	176.7	92.8	46.6	0.1	46.1	7.1	0.6	0.6	4.3	1.7	0.1
Chad	4 633.3	99.0	4.4	94.4	0.2	1.0	0.2	0.0	0.2	0.6	0.0
Comoros	23.0	45.7	42.2	0.0	3.5	54.3	1.8	36.9	1.0	14.6	0.0
Dem. Rep. of the Congo	6 400.0	95.4	3.0	11.7	80.7	3.0	0.1	0.1	0.4	2.4	1.6
Djibouti	110.2	69.3	38.8	11.8	18.7	21.6	3.5	1.9	9.6	6.6	9.0
Equatorial Guinea	14 333.3	96.4	0.9	95.3	0.1	3.4	0.1	0.0	0.1	3.3	0.2
Eritrea	401.9	86.9	31.3	0.0	55.5	13.0	2.9	0.2	7.0	2.9	0.1
Ethiopia	2 835.4	90.3	83.4	0.0	6.9	9.7	6.9	0.2	1.8	0.8	0.0
Gambia	94.9	85.2	64.8	0.8	19.6	14.6	9.3	0.8	2.7	1.8	0.2
Guinea	1 432.9	97.2	9.5	34.9	52.8	2.3	0.2	0.1	0.5	1.5	0.5
Guinea-Bissau	200.7	99.3	96.2	2.7	0.5	0.7	0.1	0.3	0.3	0.0	0.0
Haiti	833.1	11.2	9.3	0.0	1.9	82.9	74.8	0.7	4.7	2.7	6.0
Kiribati	7.3	91.8	91.6	0.0	0.2	5.8	0.1	3.3	0.9	1.4	2.4
Lao People's Dem. Rep.	2 361.7	84.8	29.6	16.3	38.9	14.8	9.6	0.4	1.1	3.6	0.4
Lesotho	1 028.2	45.1	0.6	0.0	44.5	54.8	51.3	0.2	2.8	0.5	0.1
Liberia	450.5	75.7	36.8	16.6	22.3	22.6	0.1	20.8	0.6	1.1	1.7
Madagascar	1 645.8	62.1	41.6	3.3	17.3	37.5	29.2	1.3	2.4	4.7	0.3
Malawi	1 282.5	85.5	79.8	0.1	5.6	14.2	2.5	0.4	2.8	8.5	0.3
Mali	2 528.3	88.8	36.7	2.9	49.2	11.1	1.6	0.9	2.3	6.3	0.1
Mauritania	2 677.5	91.7	24.6	9.4	57.7	0.8	0.2	0.1	0.3	0.2	7.5
Mozambique	3 909.3	91.5	22.2	33.0	36.3	7.1	0.3	2.6	1.6	2.5	1.4
Myanmar	9 471.7	90.7	33.4	39.0	18.2	9.3	7.6	0.8	0.5	0.5	0.0
Nepal	885.3	28.0	24.0	0.0	4.0	71.9	46.6	15.5	2.4	7.4	0.0
Niger	1 450.0	71.8	16.3	33.6	21.9	26.4	1.3	0.1	1.4	23.5	1.9
Rwanda	542.9	88.9	44.0	5.0	39.9	10.8	3.7	1.8	3.1	2.2	0.4
Sao Tome and Principe	11.7	60.7	56.8	2.9	2.0	38.8	1.7	3.5	6.8	26.7	0.6
Senegal	2 534.5	67.3	34.9	19.1	13.3	32.2	8.7	4.7	3.9	14.9	0.5
Sierra Leone	1 189.3	81.1	29.8	0.0	51.3	18.3	1.6	13.4	2.4	1.0	0.6
Solomon Islands	449.2	91.9	78.2	0.1	13.5	1.0	0.1	0.3	0.2	0.4	7.1
Somalia	533.3	96.3	91.8	0.1	4.4	3.7	1.7	0.0	1.2	0.8	0.0
South Sudan	..	..	..	..	..	..	..	..	..	..	..
Sudan[a]	5 062.8	97.3	10.3	56.9	30.0	2.7	0.5	0.1	0.4	1.7	0.0
Sudan (former)[b]	2.8	99.4	5.2	82.0	12.2	0.6	0.2	0.0	0.1	0.2	0.0
Timor-Leste	20.0	93.1	5.0	87.9	0.2	3.5	0.1	0.3	2.5	0.6	3.4
Togo	1 050.8	63.7	30.5	8.5	24.7	35.1	14.1	8.6	6.1	6.3	1.2
Tuvalu	0.3	72.8	71.5	0.1	1.2	23.2	1.9	11.1	5.3	4.8	4.0
Uganda	2 308.1	66.8	64.0	0.7	2.1	31.1	9.4	5.4	5.5	10.8	2.1
United Rep. of Tanzania	5 110.7	82.6	42.4	1.8	38.4	16.8	6.3	2.2	4.1	4.1	0.6
Vanuatu	51.0	74.4	73.7	0.2	0.5	24.7	0.2	23.1	1.0	0.4	1.0
Yemen	9 100.0	97.5	7.2	87.7	2.6	2.5	0.3	0.6	0.5	1.1	0.0
Zambia	9 653.2	85.6	13.4	1.2	70.9	13.5	2.4	3.4	3.4	4.3	1.0
LDCs	**207 190.8**	**78.4**	**12.5**	**51.7**	**14.2**	**21.2**	**16.9**	**1.1**	**1.0**	**2.1**	**0.5**
African LDCs and Haiti	148 228.3	93.3	11.9	63.9	17.5	6.2	2.2	0.9	1.0	2.1	0.5
Asia LDCs	58 399.9	40.4	13.4	21.1	5.9	59.3	54.3	1.7	1.0	2.4	0.3
Island LDCs	562.6	87.8	73.5	3.3	11.0	6.3	0.2	4.0	0.5	1.5	5.9
ODCs	**7 970 870.1**	**37.8**	**8.0**	**23.3**	**6.5**	**61.2**	**10.5**	**6.6**	**16.2**	**27.8**	**1.0**

Source: UNCTAD, *UNCTADstat* database (accessed September 2014).
Notes: *a* Sudan: 2012–2013 average data; *b* Former Sudan: 2011 data.
Data based on UNCTAD merchandise trade matrix, including estimated values.
Data may differ slightly from Annex table 12 due to different estimation procedures.

Annex table 15. Merchandise imports of LDCs, Share of total imports
(Per cent, average 2011–2013)

	Total imports	Primary commodities				Manufactured goods					Un-allocated
		Total	Food and agri-culture	Fuels	Minerals, ores, metals	Total	Labour-intensive and resource-intensive manu-factures	Low-skill and technology-intensive manu-factures	Medium-skill and technology-intensive manu-factures	High-skill and technology-intensive manu-factures	
	$ million	*Per cent*									
Afghanistan	5 998	37.8	20.6	17.0	0.2	51.0	9.1	5.0	19.7	17.2	11.2
Angola	22 815	26.8	20.3	5.7	0.8	72.1	10.8	14.2	33.0	14.2	1.1
Bangladesh	33 724	38.9	27.3	8.7	2.9	61.1	20.9	7.4	13.1	19.6	0.0
Benin	2 090	40.8	24.8	15.5	0.5	59.2	29.4	7.3	14.5	8.0	0.0
Bhutan	1 026	37.2	13.9	15.6	7.7	62.3	5.8	12.4	32.1	12.0	0.5
Burkina Faso	3 019	35.5	17.7	17.0	0.8	64.3	10.3	8.9	21.8	23.4	0.2
Burundi	772	42.8	20.6	20.6	1.5	56.2	11.5	9.4	16.5	18.7	1.0
Cambodia	11 100	33.1	13.8	16.2	3.1	66.3	29.3	9.4	15.5	12.2	0.6
Central African Republic	293	71.5	14.9	55.8	0.8	28.1	4.9	2.7	9.9	10.6	0.4
Chad	2 900	27.6	19.4	7.3	0.9	71.9	6.1	10.6	32.7	22.4	0.6
Comoros	278	43.2	39.5	3.3	0.4	56.7	16.5	13.6	14.8	11.8	0.1
Dem. Rep. of the Congo	5 967	32.7	19.8	11.4	1.5	66.3	9.1	12.5	26.9	17.7	1.0
Djibouti	536	33.3	30.1	2.0	1.1	64.4	18.7	10.1	18.9	16.6	2.4
Equatorial Guinea	7 000	29.7	13.9	15.2	0.6	68.9	8.5	16.0	34.9	9.5	1.4
Eritrea	967	38.5	26.0	11.1	1.4	60.8	11.6	8.5	26.0	14.7	0.7
Ethiopia	10 936	31.2	12.5	17.6	1.1	68.8	7.7	11.5	30.3	19.3	0.0
Gambia	365	45.9	36.6	8.6	0.7	53.8	25.9	6.2	12.9	8.8	0.3
Guinea	2 170	42.1	20.3	21.3	0.5	57.9	11.1	9.7	21.8	15.4	0.0
Guinea-Bissau	216	57.3	35.6	17.9	3.8	41.9	8.2	9.4	12.9	11.4	0.8
Haiti	3 223	54.3	47.7	6.1	0.4	45.7	20.6	3.8	13.5	7.8	0.0
Kiribati	104	40.7	25.0	13.1	2.6	53.1	6.8	27.2	12.0	7.1	5.7
Lao People's Dem. Rep.	2 588	31.4	11.9	18.2	1.3	68.0	7.6	11.5	32.6	16.4	0.6
Lesotho	2 467	42.3	29.3	12.2	0.8	57.7	22.4	7.4	14.2	13.7	0.0
Liberia	1 110	11.8	2.6	8.9	0.2	67.2	0.6	61.8	3.3	1.4	21.1
Madagascar	3 084	35.2	18.4	16.1	0.7	64.3	19.9	8.9	18.7	16.8	0.5
Malawi	2 690	24.1	14.2	7.9	2.0	75.2	12.5	8.8	19.8	34.2	0.6
Mali	3 505	33.0	15.4	16.8	0.7	66.5	13.1	9.0	22.5	21.8	0.5
Mauritania	2 826	42.8	23.9	18.6	0.3	55.8	11.6	9.2	25.4	9.7	1.3
Mozambique	7 028	41.4	14.9	24.5	2.1	55.3	7.4	9.7	22.7	15.4	3.2
Myanmar	9 933	37.1	12.0	24.1	1.0	62.9	12.7	16.8	19.8	13.6	0.0
Nepal	6 249	45.9	15.8	21.6	8.5	54.1	10.2	11.9	13.2	18.8	0.0
Niger	1 772	38.6	28.8	8.4	1.3	60.4	10.4	7.0	24.1	19.0	1.0
Rwanda	2 309	27.6	20.8	5.6	1.2	69.0	13.3	9.7	19.0	26.9	3.4
Sao Tome and Principe	142	56.1	31.9	22.9	1.3	43.9	8.7	6.3	17.0	11.8	0.1
Senegal	6 324	55.9	22.6	31.5	1.8	43.6	6.7	7.5	16.7	12.7	0.4
Sierra Leone	1 577	72.7	30.9	40.2	1.6	27.3	5.9	4.8	10.4	6.2	0.0
Solomon Islands	494	44.4	16.5	26.9	1.0	39.8	4.2	6.3	18.4	10.8	15.8
Somalia	1 233	70.3	69.4	0.8	0.1	29.3	10.3	3.2	7.0	8.8	0.4
South Sudan	..	..	..	..	..	..	..	..	..	..	..
Sudan[a]	9 650	30.7	20.7	7.8	2.2	67.7	11.6	10.1	26.3	19.8	1.6
Sudan (former)[b]	9 546	30.8	21.1	7.5	2.1	68.5	9.8	9.5	27.9	21.3	0.8
Timor-Leste	567	52.6	34.4	17.4	0.9	45.5	7.0	8.7	19.9	9.9	1.9
Togo	1 984	52.7	12.2	40.2	0.4	46.8	20.1	8.0	10.5	8.2	0.4
Tuvalu	24	18.5	12.2	6.0	0.4	68.9	7.1	40.7	17.3	3.7	12.6
Uganda	5 831	31.2	11.1	18.7	1.4	65.6	10.1	8.5	20.0	27.0	3.3
United Rep. of Tanzania	11 808	37.5	10.7	25.6	1.2	61.4	8.0	11.9	23.3	18.2	1.1
Vanuatu	280	32.1	15.1	16.8	0.3	63.9	6.3	31.4	14.6	11.6	4.0
Yemen	11 264	59.6	32.7	26.2	0.7	39.6	8.9	6.4	14.4	9.9	0.8
Zambia	8 715	32.4	5.6	10.1	16.8	67.1	5.1	9.3	32.3	20.4	0.5
LDCs	**220 920**	**37.5**	**19.8**	**15.4**	**2.3**	**61.3**	**12.9**	**10.3**	**21.6**	**16.5**	**1.2**
African LDCs and Haiti	137 147	35.3	18.2	15.0	2.1	63.5	10.4	11.0	25.2	16.9	1.2
Asia LDCs	81 883	40.9	22.3	16.0	2.6	58.0	17.1	9.0	15.8	16.1	1.1
Island LDCs	1 889	45.2	26.6	17.7	0.9	49.0	7.7	13.4	17.3	10.6	5.8
ODCs	**7 424 996**	**35.9**	**8.8**	**18.2**	**9.0**	**62.3**	**5.7**	**5.9**	**20.3**	**30.4**	**1.8**

Source: UNCTAD, *UNCTADstat* database (accessed September 2014).
Notes: *a* Sudan: 2012–2013 average data; *b* Former Sudan: 2011 data.
Data based on UNCTAD merchandise trade matrix, including estimated values.
Data may differ slightly from Annex table 13 due to different estimation procedures.

Annex table 16.Main markets for merchandise exports of LDCs: Share in 2011–2013
(Per cent)

	Developed countries					Economies in transition	Developing countries							Unallocated
	Total	European Union (27)	Japan	United States and Canada	Other developed countries		Total	China	India	Major petroleum and gas exporters	Newly industrialized Asian countries: 1st tier	Newly industrialized Asian countries: 2nd tier	Other developing countries	
Afghanistan	16.1	9.8	0.1	5.7	0.6	12.0	71.9	1.0	24.7	7.0	0.2	0.1	38.7	0.0
Angola	30.0	12.5	0.4	17.1	0.0	0.0	70.0	45.6	10.5	0.2	7.1	0.8	5.8	0.0
Bangladesh	82.5	53.2	2.4	23.5	3.3	1.4	16.1	1.8	2.3	1.8	2.7	0.8	6.7	0.0
Benin	6.5	6.0	0.1	0.4	0.0	0.0	93.5	15.0	15.6	15.8	1.4	5.1	40.7	0.0
Bhutan	5.2	3.6	1.1	0.3	0.2	0.0	94.8	0.0	79.7	1.8	1.7	0.0	11.6	0.0
Burkina Faso	43.2	9.7	1.7	1.1	30.6	0.1	56.7	10.8	1.2	2.2	9.2	8.8	24.5	0.0
Burundi	48.7	37.9	0.5	3.2	7.2	1.1	50.3	6.1	0.3	10.5	2.0	0.1	31.2	0.0
Cambodia	76.1	30.4	4.8	38.9	2.0	1.2	22.7	2.9	0.1	0.2	6.8	4.6	8.0	0.0
Central African Republic	52.3	45.0	2.8	3.3	1.1	0.1	47.6	15.1	1.0	2.7	1.7	5.8	21.3	0.0
Chad	89.7	5.0	2.2	82.4	0.1	0.0	10.3	6.0	1.9	0.1	0.9	0.2	1.2	0.0
Comoros	40.4	36.8	0.1	3.5	0.1	0.4	59.2	0.4	2.1	8.5	15.8	0.1	32.3	0.0
Dem. Rep. of the Congo	16.2	12.7	0.0	3.3	0.1	0.2	83.6	48.5	0.1	9.0	4.1	0.1	21.9	0.0
Djibouti	16.7	10.0	1.6	4.4	0.7	0.9	82.4	0.3	2.9	27.7	2.3	1.5	47.7	0.0
Equatorial Guinea	75.8	42.6	16.9	15.0	1.3	0.0	24.2	12.1	2.2	0.0	6.0	0.2	3.6	0.0
Eritrea	88.7	1.6	0.0	87.1	0.0	0.0	11.3	5.8	1.6	0.4	2.0	0.1	1.4	0.0
Ethiopia	46.2	30.7	2.1	4.3	9.2	0.5	53.3	11.0	1.4	10.2	1.9	0.9	27.9	0.0
Gambia	18.9	18.0	-	0.7	0.2	0.0	81.0	26.1	21.1	4.9	3.3	5.1	20.5	0.0
Guinea	45.4	34.3	0.0	10.3	0.7	12.2	42.5	1.9	17.1	0.5	3.5	1.2	18.2	0.0
Guinea-Bissau	4.5	1.8	0.1	2.6	0.0	-	95.5	-	91.7	-	3.0	-	0.7	0.0
Haiti	88.6	4.2	0.3	83.4	0.7	0.0	11.3	1.2	0.2	1.2	1.8	1.7	5.3	0.0
Kiribati	18.6	1.4	14.7	1.6	0.9	0.0	81.4	0.3	0.0	4.2	7.0	57.5	13.7	0.0
Lao People's Dem. Rep.	16.9	10.4	3.9	1.3	1.3	0.1	83.0	24.3	5.4	0.1	0.8	38.4	14.2	0.0
Lesotho	95.1	43.8	0.2	50.4	0.6	0.0	4.8	0.8	0.6	0.1	0.1	0.0	3.1	0.1
Liberia	58.2	38.5	1.2	16.0	2.5	1.6	40.2	15.9	1.0	7.2	0.3	7.5	8.3	0.0
Madagascar	63.7	48.0	2.5	12.1	1.1	0.5	35.7	7.5	3.9	2.5	7.1	5.9	8.8	0.1
Malawi	46.1	27.4	1.7	16.0	1.0	6.9	47.0	3.7	1.9	1.5	2.7	2.1	35.2	0.0
Mali	12.5	5.2	0.1	0.6	6.6	0.8	86.6	19.2	1.4	10.8	2.5	9.4	43.5	0.0
Mauritania	34.0	26.5	5.3	1.4	0.7	1.0	65.0	49.4	0.2	3.2	0.6	0.1	11.4	0.0
Mozambique	43.8	40.1	0.7	1.5	1.5	1.9	54.3	8.1	5.5	1.1	1.0	1.6	36.9	0.1
Myanmar	9.1	4.4	4.1	0.3	0.3	0.2	90.0	6.8	13.9	0.3	20.1	45.9	3.1	0.8
Nepal	24.5	12.4	1.3	9.5	1.4	0.3	75.2	2.5	63.5	1.1	1.2	0.3	6.6	0.0
Niger	51.9	34.7	1.6	13.0	2.6	1.6	46.4	3.6	2.5	18.1	3.8	0.8	17.6	0.0
Rwanda	19.0	11.2	0.4	6.7	0.7	3.2	77.8	17.9	0.0	0.7	1.8	15.5	41.9	0.0
Sao Tome and Principe	59.6	55.1	0.1	3.5	1.0	0.3	40.1	0.2	0.5	5.9	1.3	0.5	31.9	0.0
Senegal	24.8	18.2	0.7	0.6	5.4	0.2	68.8	1.6	10.5	3.5	1.9	0.7	50.7	6.1
Sierra Leone	29.6	22.7	3.0	2.9	1.0	0.4	70.0	63.1	0.5	0.6	0.8	0.5	4.5	0.0
Solomon Islands	28.2	10.3	0.9	0.6	16.3	0.0	71.8	56.1	2.0	0.1	3.1	8.6	2.0	0.0
Somalia	1.1	1.0	0.0	0.1	0.0	0.0	98.9	0.7	1.3	83.5	0.5	0.2	12.7	0.0
Sudan[a]	11.1	2.7	6.7	1.6	0.0	0.0	88.9	44.9	2.4	35.1	0.8	0.5	5.2	0.0
Sudan (former)[b]	13.0	2.7	9.5	0.7	0.0	0.0	87.0	65.8	2.0	14.2	0.8	0.7	3.6	0.0
Timor-Leste	14.0	3.5	9.8	0.3	0.5	0.0	85.9	0.3	3.5	-	76.5	5.5	0.1	0.0
Togo	20.9	18.0	0.0	1.9	0.9	0.7	78.1	6.2	8.7	5.0	1.5	3.9	52.8	0.3
Tuvalu	72.9	2.4	63.3	0.2	6.5	1.3	25.8	0.0	0.0	3.2	7.2	11.0	11.7	0.0
Uganda	32.6	27.3	0.3	2.3	2.7	1.5	65.9	2.3	1.2	9.2	2.4	1.7	49.2	0.0
United Rep. of Tanzania	31.0	16.6	6.1	2.3	6.0	1.4	67.6	11.9	13.2	6.7	2.1	2.4	31.3	0.0
Vanuatu	26.9	8.3	16.2	1.0	1.5	0.0	73.1	0.7	0.4	0.2	2.0	52.4	17.4	0.0
Yemen	11.3	3.0	5.4	2.6	0.3	0.0	88.6	32.4	9.1	11.4	15.4	15.2	5.0	0.1
Zambia	28.3	6.6	0.5	0.4	20.8	0.1	71.6	29.4	2.1	4.8	3.4	0.9	31.0	0.0
LDCs	**41.7**	**21.2**	**3.0**	**15.0**	**2.6**	**0.6**	**57.7**	**25.6**	**6.9**	**3.3**	**5.8**	**4.4**	**11.6**	**0.1**
African LDCs and Haiti	36.9	17.2	2.8	14.2	2.7	0.4	62.6	32.3	6.8	3.6	5.0	1.2	13.6	0.1
Asia LDCs	53.8	31.2	3.5	17.1	2.0	1.0	45.1	8.5	6.9	2.8	7.9	12.3	6.6	0.1
Island LDCs	28.6	11.8	2.8	0.8	13.2	0.0	71.3	44.9	1.8	0.5	6.1	12.6	5.4	0.0
ODCs	**40.6**	**14.4**	**7.1**	**16.4**	**2.7**	**1.8**	**57.2**	**11.9**	**3.9**	**5.3**	**16.0**	**6.3**	**13.8**	**0.4**

Source: UNCTAD, *UNCTADstat* database (accessed September 2014).
Notes: *a* Sudan: 2012–2013 average data; *b* Former Sudan: 2011 data; no data available for South Sudan.

Annex table 17. Main sources of merchandise imports of LDCs: Share in 2011–2013
(Per cent)

	Developed countries					Economies in transition	Developing countries							Unallocated
	Total	*European Union (27)*	*Japan*	*United States and Canada*	*Other developed countries*		*Total*	*China*	*India*	*Major petroleum and gas exporters*	*Newly industrialized Asian countries: 1st tier*	*Newly industrialized Asian countries: 2nd tier*	*Other developing countries*	
Afghanistan	32.3	10.8	1.2	20.0	0.4	18.7	48.9	3.8	4.9	9.4	1.4	2.6	26.7	0.0
Angola	49.2	38.5	1.3	7.6	1.7	0.3	50.6	19.6	2.5	1.4	5.4	2.6	19.0	0.0
Bangladesh	16.3	6.3	3.8	3.6	2.6	3.7	80.0	20.7	14.7	8.7	13.9	11.3	10.6	0.0
Benin	34.2	24.8	0.5	7.5	1.4	0.3	65.5	33.3	3.6	1.9	1.8	12.3	12.5	0.0
Bhutan	17.4	12.3	2.7	0.7	1.7	0.0	82.6	4.3	68.0	0.9	5.6	2.0	2.5	0.0
Burkina Faso	43.6	35.9	1.0	5.2	1.5	1.3	55.1	4.0	3.9	2.0	3.8	1.3	40.1	0.0
Burundi	29.9	23.5	1.6	4.0	0.7	0.3	69.9	8.2	5.5	17.9	1.6	0.5	36.3	0.0
Cambodia	5.9	2.2	1.7	1.7	0.4	0.1	94.0	20.7	0.8	0.1	22.0	29.8	20.7	0.0
Central African Republic	34.4	30.1	1.5	2.6	0.2	0.2	65.4	3.1	1.0	2.2	39.2	0.7	19.3	0.0
Chad	63.5	49.5	0.2	13.0	0.8	2.6	33.9	7.5	1.8	3.2	0.4	0.2	20.9	0.0
Comoros	28.8	26.1	1.3	1.3	0.2	0.2	71.0	9.1	7.4	14.8	3.8	3.9	32.0	0.0
Dem. Rep. of the Congo	27.8	22.4	1.1	3.6	0.7	0.3	71.9	13.5	1.4	0.5	1.2	0.8	54.4	0.0
Djibouti	17.1	9.7	1.7	5.2	0.6	4.2	78.7	26.9	14.3	5.2	2.9	13.7	15.8	0.0
Equatorial Guinea	54.2	42.6	0.2	10.2	1.2	0.6	45.2	12.7	0.7	9.9	2.3	0.7	18.9	0.0
Eritrea	25.1	21.8	0.2	1.9	1.2	1.1	73.8	21.5	4.4	16.5	1.5	2.4	27.5	0.0
Ethiopia	26.7	16.3	3.4	6.2	0.7	3.6	69.7	22.1	9.6	18.5	2.1	4.8	12.7	0.0
Gambia	22.4	18.2	0.6	3.1	0.5	0.2	77.4	25.2	5.6	3.0	2.5	8.0	33.2	0.0
Guinea	54.1	44.5	1.4	5.4	2.8	1.5	44.4	13.2	4.5	2.4	2.3	3.2	18.8	0.0
Guinea-Bissau	50.9	46.0	0.2	4.0	0.8	0.1	49.0	4.6	3.1	0.0	0.5	3.3	37.6	0.0
Haiti	75.6	8.3	3.2	63.2	0.9	0.1	23.8	2.2	0.9	0.7	1.9	3.6	14.4	0.6
Kiribati	45.7	2.6	18.6	5.4	19.1	0.0	54.3	11.8	0.4	0.1	17.1	3.1	21.8	0.0
Lao People's Dem. Rep.	9.2	5.4	2.4	0.7	0.7	0.2	90.6	16.9	0.5	0.0	3.9	61.8	7.6	0.0
Lesotho	3.4	1.8	0.7	0.9	0.0	-	96.6	4.4	1.1	0.0	7.6	0.3	83.2	0.0
Liberia	22.3	4.6	15.1	1.9	0.8	0.3	77.4	22.6	0.9	3.6	46.9	0.6	2.7	0.0
Madagascar	27.5	22.8	0.6	3.2	0.9	0.1	72.4	19.6	5.8	10.4	6.4	5.9	24.3	0.0
Malawi	20.4	12.4	2.1	4.0	1.8	0.3	79.3	10.3	9.2	7.8	2.6	1.6	47.9	0.0
Mali	37.8	32.7	0.5	2.9	1.8	1.9	60.3	11.1	3.6	1.5	2.2	0.7	41.3	0.0
Mauritania	54.2	43.5	1.3	8.1	1.3	1.0	44.7	13.8	1.4	4.7	0.7	5.0	19.1	0.0
Mozambique	23.6	11.9	2.1	5.0	4.6	0.5	75.9	11.1	11.2	3.7	3.9	4.2	41.8	0.0
Myanmar	7.9	0.8	4.9	0.5	1.7	0.9	90.9	29.9	3.9	0.4	32.8	22.5	1.3	0.3
Nepal	6.5	2.6	1.0	1.4	1.5	0.3	93.1	11.5	63.2	6.5	2.8	5.2	3.8	0.0
Niger	39.1	31.2	1.7	4.4	1.8	0.3	60.7	15.8	5.1	11.0	1.2	3.7	23.9	0.0
Rwanda	27.1	18.3	1.8	5.8	1.3	0.7	72.1	8.4	5.5	10.6	2.0	0.6	45.1	0.0
Sao Tome and Principe	68.4	63.5	2.0	2.8	0.1	0.0	31.6	1.7	0.7	21.3	0.5	1.5	5.9	0.0
Senegal	50.3	43.1	1.4	3.5	2.2	2.9	46.8	8.0	4.9	12.7	1.3	2.8	17.0	0.0
Sierra Leone	35.3	18.9	4.2	11.5	0.8	0.5	62.8	3.4	3.8	3.7	2.0	2.8	47.1	1.4
Solomon Islands	41.1	2.1	3.8	1.7	33.5	0.1	58.9	7.6	0.7	0.3	30.5	11.3	8.5	0.0
Somalia	5.9	4.7	0.0	1.1	0.1	0.1	94.0	8.9	18.9	19.9	0.5	2.8	42.9	0.0
Sudan a)	22.1	13.3	2.3	2.2	4.3	3.9	74.0	21.9	8.3	15.3	3.0	4.3	21.0	0.0
Sudan (former) b)	24.1	15.5	2.7	2.4	3.4	2.9	73.0	21.6	7.2	18.3	2.5	3.5	20.0	0.0
Timor-Leste	7.3	0.4	1.4	0.5	4.9	0.0	92.7	10.9	0.7		20.0	52.4	8.7	0.0
Togo	40.3	32.0	0.7	6.2	1.3	0.8	58.8	29.0	4.4	1.1	1.3	5.6	17.5	0.2
Tuvalu	26.1	0.2	22.0	0.5	3.3	1.0	73.2	32.7	0.0	0.0	17.7	4.2	18.6	0.0
Uganda	22.1	14.0	4.4	2.8	0.9	3.2	74.7	10.5	14.4	15.4	2.9	2.5	29.0	0.0
United Rep. of Tanzania	24.3	12.0	3.2	3.4	5.7	1.0	74.7	18.2	18.7	9.6	3.1	4.5	20.6	0.0
Vanuatu	37.4	8.1	5.6	1.6	22.1	0.0	62.6	18.9	0.6	0.0	29.2	2.8	11.0	0.0
Yemen	24.4	12.5	2.5	4.2	5.3	2.7	72.8	12.5	7.6	27.1	2.9	5.6	17.2	0.1
Zambia	14.9	9.1	2.1	2.5	1.1	0.1	85.1	9.8	3.7	8.5	1.6	0.5	61.0	0.0
LDCs	**27.5**	**17.4**	**2.4**	**5.5**	**2.2**	**2.1**	**70.4**	**16.3**	**9.1**	**8.0**	**7.3**	**7.5**	**22.2**	**0.0**
African LDCs and Haiti	34.8	24.3	2.0	6.5	2.0	1.3	63.9	15.1	6.4	7.7	3.4	3.0	28.3	0.0
Asia LDCs	15.2	6.0	3.0	4.0	2.2	3.4	81.3	18.4	13.8	8.6	13.6	14.8	12.2	0.0
Island LDCs	30.7	10.7	3.9	1.5	14.6	0.1	69.2	10.6	1.6	3.9	20.1	20.0	13.1	0.0
ODCs	**38.6**	**14.4**	**7.6**	**11.8**	**4.9**	**2.6**	**58.3**	**14.1**	**2.3**	**11.4**	**12.5**	**7.0**	**10.9**	**0.5**

Source: UNCTAD, *UNCTADstat* database (accessed September 2014).
Notes: *a* Sudan: 2012–2013 average data; *b* Former Sudan: 2011 data; No data available for South Sudan.

Annex table 18. Sectoral contribution to labour productivity growth by country, 1991–2012
(Divisia index decomposition)

Country	Direct productivity effect				Reallocation effect				Terms-of-trade effect				Decomposition by effect			Aggregate labor productivity change	Employment contribution (sectoral)			Employment contribution (aggregate)
	Agri-culture	*Industry*	*Services*	*Total direct*	*Agri-culture*	*Industry*	*Services*	*total re-allocation*	*Agri-culture*	*Industry*	*Services*	*Total terms of trade*	*Direct*	*Re-allocation*	*Terms of trade*		*Agri-culture*	*Industry*	*Services*	
Afghanistan	-15.4	-8.2	8.5	-15.1	-6.9	7.8	7.5	8.3	0.5	-0.9	1.9	1.5	-15.1	8.3	1.5	-5.4	-10.7	3.9	6.1	-0.8
Angola	13.2	60.7	-2.8	71.2	-5.2	-17.4	14.3	-8.4	-16.7	30.8	-7.4	6.7	71.2	-8.4	6.7	69.5	-10.9	-3.6	12.9	-1.6
Bangladesh	17.6	37.0	2.7	57.2	-8.1	0.0	48.1	40.1	-4.4	-3.4	11.2	3.4	57.2	40.1	3.4	100.7	-9.4	1.4	18.2	10.2
Benin	10.6	4.7	1.8	17.1	-3.7	-3.4	8.2	1.0	-1.3	2.9	-1.8	-0.1	17.1	1.0	-0.1	18.1	-1.9	-1.8	9.4	5.7
Bhutan	3.9	-14.7	11.3	0.5	-13.3	81.3	45.9	113.9	13.8	-7.6	-7.4	-1.2	0.5	113.9	-1.2	113.2	0.8	10.7	30.4	41.9
Burkina Faso	42.2	17.3	-5.1	54.4	-3.3	-6.4	49.6	40.0	-2.8	10.1	-5.4	2.0	54.4	40.0	2.0	96.4	-4.2	-0.6	7.4	2.6
Burundi	-11.2	1.6	18.4	8.9	1.2	-10.7	-5.3	-14.8	-3.8	8.5	-1.0	3.8	8.9	-14.8	3.8	-2.1	1.2	-1.4	-1.1	-1.3
Cambodia	182.5	-4.1	5.3	183.7	-36.1	41.8	59.5	65.2	29.5	-8.4	-7.7	13.4	183.7	65.2	13.4	262.3	-13.9	18.3	24.4	28.8
Central African Republic	2.2	-1.9	-7.9	-7.7	1.1	-3.0	-0.9	-2.8	-1.8	-0.5	1.7	-0.6	-7.7	-2.8	-0.6	-11.1	6.5	-0.6	0.9	6.7
Chad	3.9	40.3	9.9	54.1	-2.0	13.0	10.3	21.3	-6.6	25.0	-18.3	0.0	54.1	21.3	0.0	75.3	-6.2	0.9	2.7	-2.5
Democratic Rep. of the Congo	-21.9	9.6	-15.8	-28.2	2.0	-10.9	-3.8	-12.7	3.5	-2.2	-1.9	-0.6	-28.2	-12.7	-0.6	-41.5	6.4	-2.4	-2.1	1.9
Eritrea	-6.8	14.3	0.2	7.7	-0.2	-2.3	6.5	3.9	0.0	0.0	0.0	0.0	7.7	3.9	0.0	11.6	6.5	-0.2	3.1	9.5
Ethiopia	76.9	-9.2	-6.1	61.6	-15.5	21.1	38.4	44.0	-28.4	-0.6	24.0	-5.0	61.6	44.0	-5.0	100.6	-7.4	8.5	10.1	11.2
Gambia	-2.2	9.0	-7.6	-0.8	-0.1	-9.1	7.9	-1.4	8.5	1.1	-10.1	-0.6	-0.8	-1.4	-0.6	-2.7	0.1	-3.3	3.9	0.8
Guinea	-1.4	11.1	-5.3	4.5	-0.4	-6.1	5.4	-1.0	9.6	-3.8	-5.8	0.1	4.5	-1.0	0.1	3.5	1.1	-0.9	3.0	3.2
Guinea-Bisau	-8.1	-2.0	-17.0	-27.1	1.9	-9.8	2.6	-5.3	-8.6	3.5	2.0	-3.0	-27.1	-5.3	-3.0	-35.4	10.9	-5.1	5.5	11.3
Haiti	-11.6	-11.6	-29.8	-53.0	-7.8	6.4	19.1	17.8	0.7	1.5	-2.2	-0.1	-53.0	17.8	-0.1	-35.4	-13.2	4.9	26.7	18.4
Lao People's Dem. Republic	26.9	35.5	33.7	96.2	-8.3	23.7	43.9	59.3	7.3	5.5	-17.5	-4.8	96.2	59.3	-4.8	150.7	-3.6	3.8	10.8	11.0
Lesotho	1.9	38.8	-1.6	39.1	-1.4	-0.6	34.1	32.0	2.5	-4.8	1.0	-1.2	39.1	32.0	-1.2	69.9	0.5	1.0	11.1	12.7
Liberia	36.9	-19.7	-33.4	-16.1	-34.5	24.5	21.2	11.1	9.9	-10.5	0.3	-0.3	-16.1	11.1	-0.3	-5.3	-33.7	9.6	30.7	6.6
Madagascar	-7.1	15.1	-17.0	-9.0	1.8	-14.1	4.0	-8.3	-18.9	-8.9	29.2	1.4	-9.0	-8.3	1.4	-15.9	12.9	-8.5	2.1	6.5
Malawi	-10.1	12.5	-11.2	-8.9	-1.7	1.1	6.4	5.9	1.9	-24.4	24.7	2.2	-8.9	5.9	2.2	-0.8	1.3	1.2	3.9	6.5
Mali	2.9	11.3	-8.9	5.2	-3.7	-2.6	9.9	3.6	0.4	2.2	-3.4	-0.8	5.2	3.6	-0.8	8.0	13.8	0.7	14.6	29.1
Mauritania	-16.4	0.1	12.1	-4.2	-3.1	3.8	3.8	4.6	-3.2	10.6	-7.9	-0.5	-4.2	4.6	-0.5	-0.1	7.4	4.1	11.9	23.4
Mozambique	34.2	27.8	23.6	85.6	-5.5	11.0	31.5	37.0	0.1	-4.2	3.8	-0.3	85.6	37.0	-0.3	122.2	-5.8	1.7	7.6	3.5
Myanmar	141.1	82.4	115.6	339.0	-19.3	17.6	20.1	18.4	-7.1	0.1	2.2	-4.8	339.0	18.4	-4.8	352.6	3.0	8.4	12.6	24.0
Nepal	13.6	4.5	14.7	32.8	-5.0	4.5	18.4	17.9	0.9	-0.6	1.6	1.8	32.8	17.9	1.8	52.6	-1.5	3.6	6.2	8.2
Niger	3.9	0.9	-8.5	-3.6	1.6	-3.0	-0.7	-2.1	-2.6	6.3	-2.3	1.4	-3.6	-2.1	1.4	-4.3	7.2	-1.0	2.1	8.3
Rwanda	12.5	10.2	6.4	29.0	-4.1	0.5	23.9	20.4	6.1	-2.6	-3.1	0.4	29.0	20.4	0.4	49.8	-1.7	0.5	8.4	7.2
Senegal	4.2	-6.0	29.1	27.3	-3.9	15.6	0.5	12.1	5.1	1.3	-6.1	0.2	27.3	12.1	0.2	39.7	-15.5	6.4	-4.2	-13.4
Sierra Leone	-2.8	16.8	-16.9	-2.9	-2.2	-0.1	3.4	1.1	3.3	1.1	-1.0	3.4	-2.9	1.1	3.4	1.6	3.0	0.6	5.9	9.5
Somalia	-23.8	-0.7	-7.7	-32.1	-2.8	0.1	5.7	3.0	4.3	-1.2	-4.2	-1.1	-32.1	3.0	-1.1	-30.3	-7.4	-0.1	3.2	-4.4
Sudan	128.6	15.9	9.3	153.8	-4.9	5.8	4.3	5.2	-75.2	0.9	23.9	-50.3	153.8	5.2	-50.3	108.7	1.1	3.0	6.7	10.8
Togo	-8.6	3.6	-7.7	-12.7	-0.5	-8.5	3.1	-5.9	11.2	-5.8	-4.7	0.7	-12.7	-5.9	0.7	-17.9	7.7	-2.0	10.0	15.7
Uganda	16.0	2.5	18.5	37.0	-7.3	21.1	18.6	32.4	-7.2	5.0	2.8	0.6	37.0	32.4	0.6	69.9	-16.6	3.5	5.6	-7.5
United Rep. of Tanzania	12.4	27.8	23.6	63.8	-6.7	8.2	44.9	46.5	21.9	-2.0	-16.1	3.8	63.8	46.5	3.8	114.0	-9.8	1.4	10.5	2.2
Yemen	9.1	-9.4	5.2	4.9	-2.4	2.1	8.3	7.9	-9.4	18.8	-18.3	-9.0	4.9	7.9	-9.0	3.8	6.0	5.0	17.8	28.8
Zambia	-1.4	9.0	25.6	33.2	2.0	-3.6	-11.3	-13.0	4.4	-8.5	6.4	2.2	33.2	-13.0	2.2	22.4	10.2	-0.3	-5.1	4.8

Source: UNCTAD secretariat calculations based on data from UN/DESA, Statistics Division, *National Accounts Main Aggregates* database for national ccounts data (accessed June 2014); and ILO, *Global Employment Trends 2014* database for employment data (accessed June 2014).