25 October 2010

In Quest for Structural Change: Revisiting the Performance of LDCs

UNCTAD's Contribution to the preparatory process for the UNLDC-IV

Advance unedited version

Executive Summary

The LDCs as a group enjoyed a protracted period of improved performance in the areas of economic growth, macro-economic stability, trade and investment, and resource flow and balances, until the recent global crises. However, this robust performance was relatively skewed and fragile and as such could not catalyze a breakthrough for structural progress. Changes have been particularly lagging in the areas of investment in productive sectors, trade diversification, infrastructure development, science and innovation capacity building. In order to accelerate a transition towards structural progress, there is a need to revisit the development approaches in the LDCs and development partners, particularly in the light of their recent development experiences and the challenges brought about by the fuel, food and financial crises. A new vision of the development paths for the LDCs needs to include a facilitating macro-economic framework, innovative meso-level interventions and a new set of international support measures addressing the specific need of an increasingly heterogeneous LDCs group.

UNCTAD/ALDC/2010/4

GE.10 -

I. Introduction

Background and Objectives

In its resolution 63/227, the General Assembly decided to hold the IV United Nations Conference on the Least Developed Countries (LDC IV) in 2011. The objectives of the LDC IV conference are:

1. To undertake a comprehensive assessment of the implementation of the Programme of Action for the Decade 2001-2010 by the LDCs and their development partners;
2. To identify effective international and domestic measures to address remaining and emerging challenges;
3. To reaffirm the global commitment to address the special needs of the LDCs made at the major United Nations conferences and summits;
4. To mobilize additional international support measures and action in favor of the LDCs and, in this regard, formulate and adopt a renewed partnership between the LDCs and their development partners.

UNCTAD has been mandated by the General Assembly and the Accra Accord (cfr. 12th UNCTAD Conference, Ghana, 2009) to actively contribute to the preparations for the LDC IV in two main areas that pertain to UNCTAD's mandate, namely to analyze the economic performance of the LDCs in order to identify discernable structural changes that have occurred since the adoption of the 2001 Brussels' Programme of Action and to submit possible pro-poor and pro-development international support measures with a view to accelerating the graduation process of LDCs. This report attempts to extensively dwell with both areas in a strategic way, in an attempt of gathering a proper understanding of the past development patterns of the LDCs and drawing critical lessons and insights.

This report will also attempt to refocus the attention of the international development community and global leaders to the enduring challenges faced by the LDCs in sustaining growth and development and the need to remove poverty and other forms of human deprivations at an accelerated pace. In so doing, it will present new ideas on how to enhance and reinvigorating the LDC status, notably by pointing to structural progress.

The LDCs currently host 12% of the world's population, half of which live in extreme poverty, but account for less than 2% of world's GDP and around 1% and 0.5% of world trade in goods and services, respectively. Their development prospects are constrained by several structural impediments, which have made them extremely vulnerable to external shocks as well as to the adverse consequences that environmental changes may have on these economies as it was recently shown by the devastating earthquake in Haiti and the tsunami in Samoa.

In this context, the development model that the LDCs are currently pursuing needs to be revisited and the efficacy of the international support measures have to be brought under intense scrutiny. A post-2001 diagnostic exercise is therefore needed in order to build the future of these countries.

Methodology and Scope of the Report

The analytical approach of the present document is anchored in the concept of "structural progress". In this regard the terms "structural transformation" and "structural change" (in the positive sense) have been used interchangeably. The choice of this defining concept is informed by the fact that an LDC remains an LDC because of a varying set of "structural" handicaps or constraints. Structural progress constitutes irreversible advances of catalytic nature that help obliterating these handicaps or constraints in the LDCs.

Structural progress may be defined as an intertwined phenomenon that brings in new and complementary elements aiming at, *inter alia*, accelerating pro-poor growth, augmenting capital formation, increasing skills for productivity growth, enhancing domestic resource inputs and improving the ability to deal with external shocks. These elements of structural progress seek to enhance domestic capabilities and quality of jobs, improve specialization and composition of outputs, and facilitate an equitable poverty reduction. From these two perspectives, structural progress may be measured both as a process and as outcomes. Furthermore, while genuine structural progress almost certainly implies progress towards thresholds of graduation from LDC status; the reverse is not true.

This report addresses the issues of structural changes and emerging challenges facing the LDCs through an assessment of, inter alia, (i) the performance of LDCs during the past ten years and of the structural progress occurred; (ii) the trade and macroeconomic performance of the LDCs; (iii) the state of investment promotion, including FDIs; (iv) the extent of commodity dependence; (v) pressing needs for trade facilitation and innovation; (vi) the development aspects arising from enhanced South-South cooperation. Each area contains an analysis of the experience of the LDCs since 2001 and attempts to highlight the lessons learnt to the benefit of the national governments and the international development community.

Identifying structural progress may prove to be a challenging task given the existing large differences among and across the LDCs. In spite of their heterogeneity, all LDCs face pervasive poverty and common structural handicaps. The latter include low economic diversification, bottlenecks in production, trade and current account deficits, poor infrastructure, skills shortage, dependence on foreign resource flows, weak institutions, high incidence of conflicts and natural disasters, among others. These common weaknesses, which were at the origin of the category back in 1971, currently reinforce the need to implement policies aimed at enhancing domestic productive capacities with a view to undertake structural progress.

It is worth stating that the goal of achieving structural progress goes beyond the Millennium Development Goals (MDGs), and beyond the objectives of progress under the LDC identification criteria (per capita income; human assets; economic vulnerability). Structural progress will probably coincide with improvements in meeting the MDGs, while advances under the MDGs do not warrant structural progress.

The current report is not intended to provide a thorough assessment of the progress towards meeting the goals highlighted in the Brussels' Programme of Action or to carry out country or regional overviews as these are carried out by the United Nations Office of the High Representative for the LDCs, landlocked developing countries and small island developing states and by the United Nations Development Programme respectively. Other topics, although relevant, such as climate and environmental changes affecting the livelihood and sustainability of the millions of people that live in rural areas, employment, education, and health considerations, among the most important ones, are not covered in the present report as they are not directly part of UNCTAD's mandate. In undertaking its analyses, the report has drawn on the accumulated wisdoms available in various flagship publications of UNCTAD as well as other relevant literature. For consistency reason, wherever possible, the analyses have been based on UN data sources.

The specific forward-looking measures are expected to be dealt with by the forthcoming Least Developed Countries Report and other UNCTAD publications.

Layout of the Report

To respond to the goals and objectives listed above, this report is composed of the following seven building blocks that attempt to highlight the role of structural progress in their respective areas. Following the introductory section, the report explores the conduct of selected macro-economic indicators in the LDCs (Section II). Section III, recognizing the diversity of the LDC group, attempts to assess the relative performance of specific countries towards the objective of structural progress. Structural changes taking place in the trade performance of the LDCs are the focus of Section IV, followed by an exposition of the changing pattern of commodity dependence (Section V). Issues related to investment promotion, particularly foreign investment inflows have been discussed in Section VI. Section VII tracks changes in a number of critical elements of competitiveness of the LDC economies (e.g. trade facilitation and connectivity, development of science and technology including penetration of information and communication technology). Finally, the emerging scenario relating to foreign aid flow and debt situation has been discussed in Section VIII. The document closes with a set of final observations.

II. Trends in Selected Macroeconomic Indicators

The LDCs have not only grown faster than the other developing countries since 2001, but they have managed to maintain a high GDP growth rate during the peak of the financial and economic crisis. But, such a growth performance was not broad-based or inclusive. The structural change that has taken place has proven insufficient to implement a structural transition towards productive capacity building processes, including growth in the manufacturing sector. The LDCs have not experienced the social improvements and employment advances that the rapid growth rates of the 2000s would have led to expect. Finally, the drastic macroeconomic rebalancing, carried out under the conventional consensus, has led to improvements in their macroeconomic position, which may have enhance resilience to withstand the effects of external crisis, but not the structural transformation needed for inclusive and sustained growth.

Economic growth performance

The LDCs have experienced the strongest growth performance ever in 2005, 2006 and 2007 and their growth rates have surpassed the goal of 7% included in the BPoA. Due to the higher population growth, the LDC performance in per capita terms has been more modest, but nonetheless above an annual rate of 4% throughout the 2000s, except for 2009. However, the high growth performance of the LDCs during the past decade was not broad-based and large differences persist among the LDC groups (see Table 2.1).

Oil-exporting LDCs grew at 9.1% during 2001-09, while manufacture and mineral LDCs grew at 5.7% and 5.4%, respectively. Thanks to the oil-exporters, the growth rates of African LDCs have been above the average of the group. The commodity boom of the recent past has fuelled the growth performance of non-manufacturing industries (extractive and construction activities). The modest performance of the fuel and mineral exporting LDCs in 2009 and the recent performance of the agriculture and food exporters is closely linked to the swings in the global demand and prices. The manufacture-exporting LDCs have also experienced a fall in their GDP growth, although significantly smaller in scale than that of the other groups, as their export volumes were adjusted to the international demand of the production networks, and they did not seem to have suffered from downward price effects.[1]

Overall, the growth performance of LDCs during the past decade has been largely internationally-driven, due to internationally-defined commodity price fluctuations and the swings in the global demand of low-tech manufactured goods and services. The major sources of LDCs' growth made it thus prone to external shocks and dangerously reliant on international changes. A domestic demand-driven model of growth would have prevented such a high dependence on the "mood" of international markets and speculators through the development of productive capacities underlying a sustained and sustainable growth process.

[1] Bems et al. (2009)

One study[2], using the classical macroeconomic identity, found that the demand components that contribute the most to the economic growth of LDCs are investment (domestic and foreign), followed by exports and Government consumption.

Table 2.1: Real GDP and real GDP per capita growth rates of LDCs

(annual average growth rates)

	Real GDP					Real GDP per capita				
	2001-2009	***2001-2006***	***2007***	***2008***	***2009 (est.)***	***2001-2009***	***2001-2006***	***2007***	***2008***	***2009 (est.)***
LDC Total	*7.1*	*6.9*	*8.4*	*7.0*	*4.1*	*4.6*	*4.4*	*5.9*	*4.6*	*1.7*
LDC Africa and Haiti	*7.7*	*7.5*	*9.1*	*7.9*	*3.5*	*4.8*	*4.6*	*6.2*	*5.0*	*0.7*
LDC Africa and Haiti less oil exporters	*5.9*	*5.5*	*6.5*	*6.7*	*4.2*	*3.0*	*2.6*	*3.7*	*3.9*	*1.5*
LDC Asia	*6.0*	*5.7*	*7.0*	*5.2*	*5.5*	*4.2*	*3.9*	*5.2*	*3.5*	*3.7*
LDC Islands	*6.2*	*7.5*	*6.4*	*4.4*	*0.0*	*3.8*	*5.2*	*3.8*	*2.0*	*-2.3*
Other Developing Countries	*6.3*	*6.4*	*7.6*	*5.4*	*1.5*	*4.9*	*5.0*	*6.3*	*4.1*	*0.3*
LDCs according to export specialization:										
Agri & Food Exporters	*8.2*	*8.6*	*9.8*	*6.6*	*8.4*	*5.0*	*5.2*	*6.4*	*3.4*	*5.0*
Fuels Exporters	*9.1*	*9.1*	*11.3*	*8.2*	*2.7*	*6.9*	*6.8*	*9.2*	*6.1*	*0.7*
Manufactures exporters	*5.7*	*5.5*	*6.3*	*5.8*	*4.3*	*3.8*	*3.5*	*4.4*	*4.0*	*2.6*
Mineral Exporters	*5.4*	*5.5*	*5.0*	*5.6*	*3.1*	*2.6*	*2.6*	*2.3*	*2.8*	*0.4*
Service Exporters	*6.6*	*5.8*	*7.9*	*7.8*	*5.1*	*3.8*	*3.1*	*5.1*	*4.9*	*2.2*

Source: UNCTAD Globstat and IMF World Economic Outlook October 2009.

The export-led growth model that many LDCs have followed has had heterogeneous results, since as little as 7 LDCs (Angola, Bangladesh, Cambodia, Chad, Equatorial Guinea, Sudan and Yemen) alone accounted for 74% of total LDCs' exports in 2008 and oil-exporting LDCs alone accounted for 62% of total LDCs exports. The sustainability of the growth prospect of LDCs is endangered by the relatively high occurrence of natural disasters, conflicts and by the volatility of market.

Changes in GDP Composition

Currently, the GDP of LDCs is primarily dominated by services (43%), followed by industrial activities (31%), which are mostly linked to mining, and lastly by agriculture whose weight has been falling over time to reach 26% of value added in 2006-08 (see Table 2.2). These averages mask the large differences amongst the LDCs and the individual GDP components. The share of manufacturing in GDP has been stagnant over the past 18 years. Marginal progress has only been recorded by Asian LDCs, driven by their specialization in low-tech manufactures (primarily textiles). Compared to the previous decade, half of the LDCs have experienced a de-industrialization process, measured by the declining share of manufactures in total output, and for 18 LDCs the share of agriculture in GDP has increased. This is the result of the trade liberalization process undertaken by the LDCs in the 1980s and 1990s,

[2] UNCAD (2006)

which led to a type of specialization, according to comparative advantage principles, into resource-based exports.

Although services have increased in value terms, as a share of value added they have remained constant for the group of LDCs, but they have shown a remarkable increase during the past two decades, moving from 58% in 1990-92 to 64% in 2006-08, for the group of island LDCs. A look at the composition of services sectors shows that only a minimal part goes to domestic productive capacity improvements. The share of productive services (financial, computer and information, royalties and other business services) in total value added has stagnated in the LDCs as a group throughout the past decade at around 18%, against some 30% for the other developing countries. Only the island LDCs have a level of productive services comparable to that of other developing countries.

Table 2.2: GDP composition by sectors
(% total value added)

	1990-92	2000-02	2006-8
LDC			
Agriculture	36	30	26
Industry	21	25	31
of which Manufacturing	10	10	10
Services	43	44	43
African LDCs			
Agriculture	37	32	28
Industry	21	25	32
of which Manufacturing	9	8	8
Services	42	43	40
Asian LDCs			
Agriculture	33	27	23
Industry	21	26	29
of which Manufacturing	11	12	13
Services	44	45	47
Island LDCs			
Agriculture	28	21	22
Industry	14	14	14
of which Manufacturing	7	7	6
Services	58	64	64

Source: UNCTAD Globstat

This sectoral pattern of growth indicates the failure to develop productive capacities and to modernize the economy in a way that would have led to a structural transition towards more manufactured-based economies. Furthermore, the resulting sluggish structural change observed does not adequately respond to labour market demands. The developmental role of expanding domestic demand for structural transformation also needs to be explored.

Resource Balances

Fiscal resources. Revenue from taxes has increased in the LDCs from 13% of GDP in 2001 to 16.3% of GDP in 2007, the latest available year. Although taxes vary depending on the country which has levied them, available data reveal that LDCs are still relying more on taxes raised from international trade, than from domestically-raised taxes. Taxes on international trade accounted for 5% of GDP in 2007, up from 3.5% in 2001.

- In spite of the large trade liberalization efforts undertaken by the LDCs during the late 1980s and 1990s import related income still accounted for 35% of LDCs' tax revenue in 2007, while taxes on exports accounted for a mere 1.7%.

- Taxes of income, profit and capital gains have remained stable after 2001, accounting for a quarter of the share of total taxes, and accounting for 15% of government revenue in 2007.

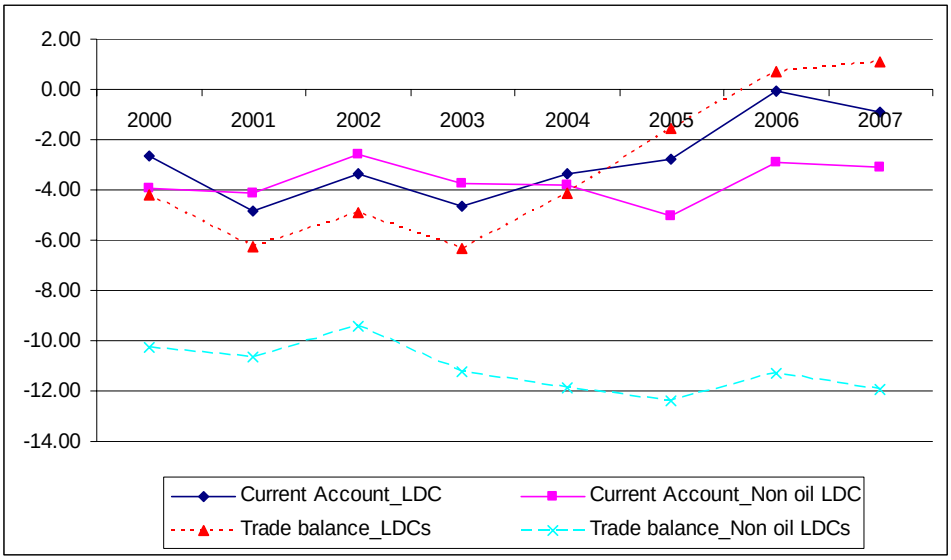
- The share of taxes on goods and services, which includes taxes on general sale and turnover, VAT, taxes on services and extractive activities, in total tax revenue has only marginally increased over time: from 23% in 2001 to 25.6% in 2007.

Current Account and Fiscal Balances. The LDCs have managed to improve their macroeconomic position in the 2000s onward due to drastic rebalancing seen necessary under the conventional consensus. Commodity-prices-driven export boom and, in some cases, buoyant remittance flow from expatriate workers, led to significant improvement in their current account balance from -4.8% of GDP in 2001 to -0.9% of GDP in 2007 (see Figure 2.1). For the oil-exporting LDCs, there seems to exist a very close correlation between oil prices and the current account balance (see Figure 2.2, which exemplifies the relationship in the case of Angola). The exclusion of the oil exporters shows that the current account balance of the remaining LDCs did not improve much over time, although it has a positive upward sloping trend. However, while the Asian and island LDCs have been experiencing a current account surplus since mid-2000s, the African counterparts are still faced with a current account deficit.

Similarly, while the trade balance for the LDCs as a group has improved during the period considered, for the non-oil exporters it has moved in the opposite direction, worsening over time. A negative trade balance implies that exports are not sufficient to generate enough foreign exchange to pay for their imports. Unless there is a constant inflow of external resources, growth can be constrained in the medium to long period (see Section IV). This highlights another aspect of the vulnerability faced by LDCs: exogenous shocks can adversely affect their export earnings and thus their import payments.

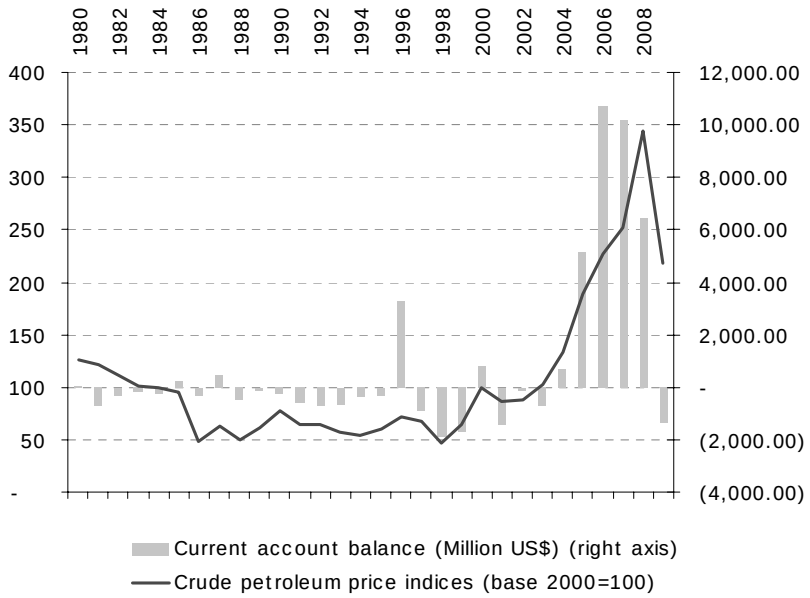
Figure 2.1: Current account and trade balance for LDCs and non-oil exporting LDCs

(% of GDP)



Source : UNCTAD Globstat

Figure 2.2. Angola: current account balance versus crude petroleum price indices



Source: UNCTAD commodity price statistics.

Data on the fiscal balance for LDCs is extremely difficult to get hold of. The available internationally-comparable scatter data on six LDCs[3] indicate that their fiscal balance has improved during the past decade, contributing to increasing LDCs' resilience to external shocks. However, as the average LDC relies on import taxes to sustain Government revenues,

[3] Benin, Burkina Faso, Cambodia, Madagascar, Mali, and Niger.

the trade fall resulting from the financial crisis is likely to worsen the fiscal position of the LDCs. According to one study[4] in 2008 the overall fiscal balance of the net oil-exporting African countries increased to 6.1% (up from 4% in 2007), mainly because of higher oil prices and production increases. The group of net oil-importing countries, on the other hand, experienced an overall deficit equal to some -1.8% of GDP in 2008, compared to -0.3% in 2007. These figures show the effect of the fuel and food crises on the African economies and the related increase in fuel, fertilizer and food subsidies that many of them had to implement. Projections for 2009 estimate a widening of the average deficit for the net oil-importing countries, due to the decline in tax receipts as GDP growth slows and a fiscal deficit of some 7.5% of GDP due to reductions in price and volume. Securing and sustaining access to capital flows has therefore become critical. As shown below, only remittances have not declined. Access to trade finance has become more difficult: the gap between ODA commitments and disbursements, and FDIs are expected to decline.

Policy and Institutional Environment

The policies followed by the LDCs during the past decades have severely reduced Government involvement to a strict minimal role. As those market-based policies have not led to structural change and economic diversification and worse, they have probably contributed to poverty increases[5], during the last decade there has been a revaluation of the role of the State (and its links with the markets) in promoting development in the LDCs. Governments can help nurture comparative advantage by creating an enabling environment for manufacturing firms to make investments in the right capabilities.

The institutional reforms that have been undertaken have included achieving stable property rights and contract enforcement, the minimization of expropriation risks, low corruption and rent-seeking activities as well as the provision of key public goods such as health and education. Although governance in the LDCs, measured by three of the six World Bank governance indicators, has moderately increased over time[6], it is still difficult to assess the quality of institutions, which appear to be closely related to the countries' per capita incomes[7].

The problem that many LDCs face is linked to the financial resources available to their Governments to cover their financial expenses (including compensation of employees). In 2006 those resources amounted to a mere $60 per capita in the LDCs, against some $295 per capita in the lower-middle income countries and $6560 in high-income countries. Furthermore, in 2006, half the LDCs had less than 18.4 cents/day/person to spend on private formation, public investment in infrastructure, public services and public administration as

[4] OECD (2010)

[5] It is generally acknowledged now that the markets left to themselves can lead to poverty increases in developed as well as developing countries (Samuelson, 2004)

[6] The index on political stability and absence of violence for the LDCs moved from a median of 30 (% rank) in 1996 to 34 (% rank) in 2008; Government effectiveness increased from a median of 19 (% rank) in 1998 to 20.8 (% rank) in 2008, and the rule of law increased from a median of 18.1 (% rank) in 1996 to 24.4 (% rank) in 2008. The three remaining dimensions are voice and accountability, regulatory quality and the control of corruption.

[7] UNCTAD (2009c)

well as the provision of law and order[8] Clearly, not much can be expected to be done with such a low financial base.

External financial support from bilateral and multilateral donors in 2005-07 only provided an average gross disbursement to the LDCs as a group to finance Government and related purposes equal to some $5 billions, which is equivalent to only one fifth of the overall financial resources disbursed. Only 15% of those $5 billions was devoted to finance Government-sponsored productive capacity-building activities at the domestic level.[9]

During the 2000s, the LDCs, on average, have also managed to ease the costs of doing business: the cost of starting a new business (as % of per capita income) has decreased drastically from 219.9% in 2004 to 91.5% in 2010, as well as in both oil-exporting and oil-importing LDCs.[10] The time required for contract enforcement has not only decreased, but it is now lower than that for low and middle income countries. Although drawing a comparison over time is not possible, the trade-related business procedures in LDCs are, on average, within the range of low and middle-income countries (see Table 2.3).

Table 2.3: Doing business in the LDCs and in the low and middle income countries

	LDCs		Low and middle income countries	
Indices	2004	2010	2004	2010
Cost of starting a business (% of per capita income)	219.9	91.5	65	42.7
Strength of legal right index (0-10)	..	4.4	..	4.7
Number of documents to export	..	7.7	..	7.2
Time to export (days)	..	35.7	..	25.9
Enforcing contracts (n. of procedures)	40.3	40.5	39	40.1
Enforcing contracts (n. of days)	569	557	581.4	576.6

Source: World Bank, Doing Business Database (www.doingbusiness.org). Data downloaded in May 2010.

Given the high incidence of conflicts in the LDCs (only one third of LDC has not experienced a conflict during the past four decades), one of the Governments' most important role is to

[8] UNCTAD (2009c)
[9] UNCTAD (2009c)
[10] Based on available statistics, thank to the oil revenue, the oil-exporting countries managed to reduce the cost of starting a business from a very high average of 837 (as % of per capita income) in 2004 to 116 in 2010. But the costs of starting a business are lower in oil-importing LDCs (88.9% of per capita income in 2010) than for the oil-exporters.

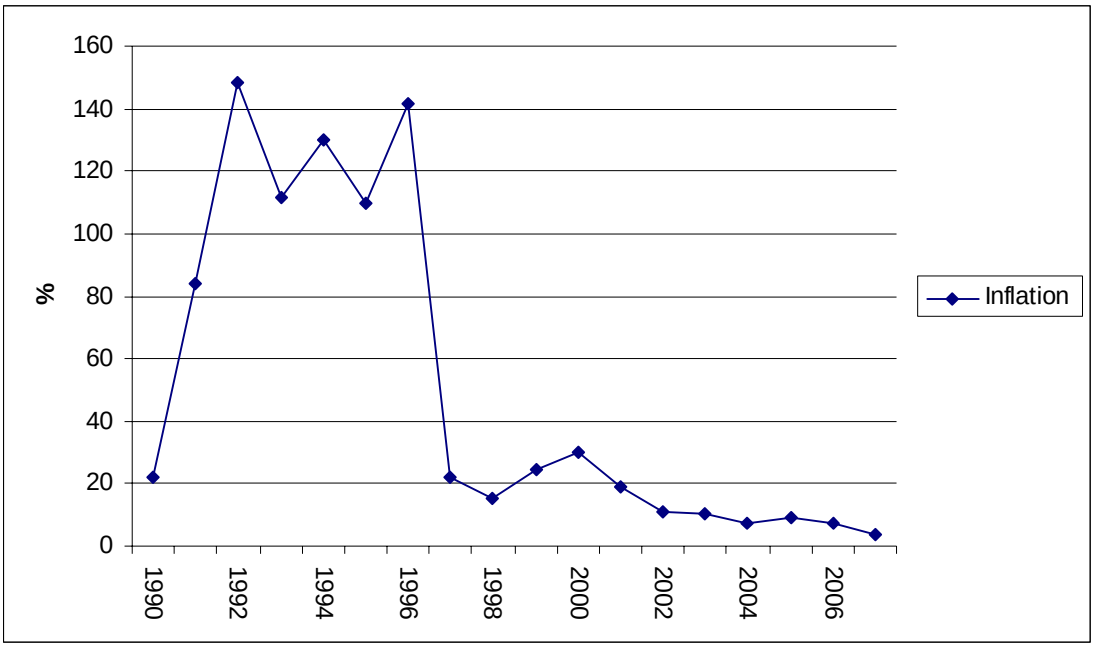
maintain peace and security, which are necessary pre-conditions for economic integration and development.

Inflation

Thanks to the low inflation targeting, called on by the IMF as part of its macroeconomic rebalancing strategy for LDCs, the very high average inflation rates of the 1990s in the LDCs drastically reduced by the beginning of 2000s. This contributed to stabilization of domestic prices, attracted foreign investors, and reduced the cost of borrowing, thus providing a climate more suitable for sustained economic growth and job creation.

Figure 2.3: Inflation in the LDCs

(per cent)



Source: World Bank, World Development Indicators

Employment and Poverty

During the past decade, available data indicate that the LDCs have not experienced the social improvements and employment advances that the rapid growth rates would have led to expect. Information on 13 LDCs suggests that agricultural employment still accounts for between one third and 80% of total employment, depending on the country and its specialization. Industrial employment, on the other hand, does not seem to account for more than 10% of total employment.

Estimates on the evolution of poverty rates during the past decade gave conflicting messages. One study found that poverty has been falling since 1995 much more and faster than what was ever thought, introducing for the first time the possibility of seeing the LDCs meet the MDG

goal on poverty[11]. On the other hand, UNCTAD found that progress in reducing extreme poverty has been slow, much slower than that required to achieve the MDGs, and that there has been no acceleration in poverty reduction after 2000[12].

While the group average of the Gini coefficient has remained stable around 0.40 throughout, many growth-virtuous countries experienced some deterioration of income distribution.

Crises and thereafter

Throughout the 2000s the LDCs have been exposed and hit by three different crises: the fuel, food and financial/economic crises. The financially poor LDCs have fended off the first two crises through temporary increases in Government fiscal deficit and by cutting back on other expenses – mostly linked to social services – to pay for their fuel and food bills. The 6 oil-exporting LDCs[13] have been the only ones to benefit from the (temporary) increases in oil prices, while invariably all LDCs – even the food-exporting countries – have been hit at various degrees by the increases in the price of food and fuel. Rising food and fuel prices not only affected Government finances, but also jeopardized incomes and savings of poor households.

The food crisis has hit the LDCs the hardest and especially the African countries. Years of neglect of the African farming sector; structural adjustment policies that removed farming supports in the name of neoliberal economics; international attention to other African problems while funding for agriculture declined; fall in R&D for climate-resistant plants and seeds; and climate change are some of the key elements that have contributed to making the rise up in international food prices having so many negative consequences on African LDCs. Furthermore, LDCs were also faced with the lifting up of protective measures from traditional food-exporting countries (developed and developing), which have also restricted trade volumes in food. Consequences of this crisis are still felt nowadays. All the proposed remedies, from the implementation of a green revolution to revamping donor's attention to agricultural support, need several years and political will to become operational.

Between 2008 and 2009 the LDCs were also hit by the financial and economic crisis and the consequent "great trade collapse"[14] between the third quarter of 2008 and the second quarter of 2009. The financial debacle and the related economic slump trigged a demand shock (i.e. a heavy drop in international sales), which compounded with a few supply side factors led to a drastic fall in international trade. Many of the poorest countries believed that they would be the hardest hit. A study conduced in 2009 concluded that, due to this crisis, the number of poor in LDCs was to rise by 6.1 million in Africa and by 1.2 million in Asia by 2010[15].

The IMF reported Sub-Saharan Africa's real GDP growth to have been better than expected (at 1.6%), and it forecast a strong recovery up to 4.3% by 2010. Some argue that such a

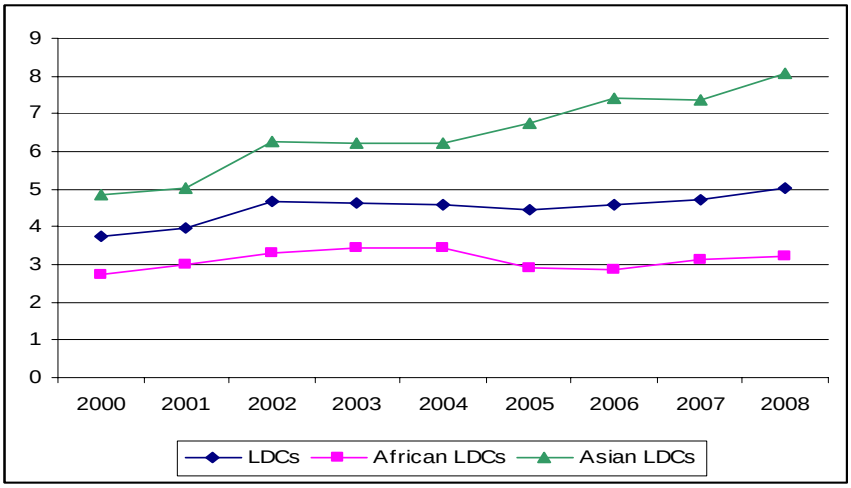
[11] Pinkovsky and Sala-i-Martin (2010)
[12] UNCTAD (2008)
[13] Angola, Chad, Equatorial Guinea, Sudan, Timor Leste and Yemen.
[14] Baldwin, (2009: 1)
[15] Karshenas (2009)

performance could be explained by their improved macroeconomic management, well capitalized and less leveraged banks, diversification of export markets toward emerging economies, and the introduction of counter-cyclical policies made possible through earlier debt relief, aid flows and loans by the IMF, World Bank and the African Development Bank (see Box 1). Data show that the fears that a stop to the flow of remittances to LDCs, and particularly to the Asian LDCs, were not well grounded. Figure 2.4 shows that remittances have increased throughout the period considered and they accounted for an estimated 5% of the GDP of the LDCs, and for as much as 8% of the GDP of Asian LDCs. The GDP share of remittance flows to African LDCs has remained constant over time, although it has been increasing in value terms.

Following the example of 1997 crisis-hit Asian countries, LDCs have increased their foreign exchange reserves drastically during the 2000s, which they accounted for an average of 5 months of imports by 2008 (well above the recommended 3 month's worth of imports[16]). Foreign exchange reserves have increased mostly in African LDCs (see figure 2.5). Although it could be argued that such an increase in foreign exchange reserves was unnecessary and that the LDCs could have done better to invest them in improvements of their productive capacities, rather than accumulating low-yield assets, these large stocks of reserves may have played a protective role against the effects of the recent crises. However, this indication of improved resilience to shocks should obfuscate the fundamental challenge of implementing structural progress in the LDCs.

Figure 2.4: Total Remittances to LDCs

(% of GDP)

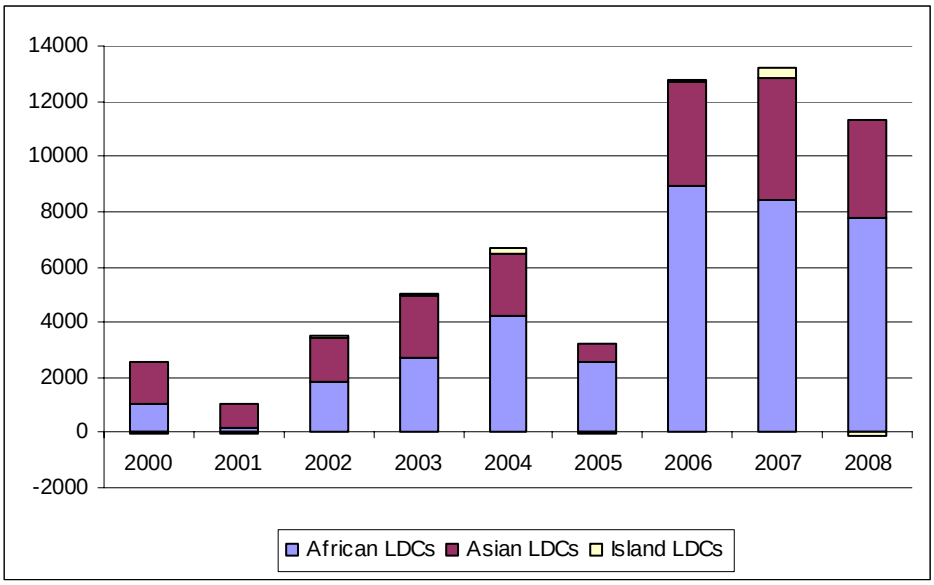


Source: UNCTAD Globstat

Figure 2.5: Increases in foreign exchange reserves, including gold, in the LDCs

[16] This corresponds to the conventional rule of thumb, which is currently being replaced by the Greenspan-Guidotti rule, which looks at the share of reserves in the stock of short-term debt. According to this rule, reserves have to increase in line with the countries' external exposure.

(million of US dollars)



Source: UNCTAD Globstat.

Box 1: The financial crisis and the LDCs

The outbreak of the financial crisis in the USA in September 2008, and its rapid contagion to most of the developed and developing word, sent out alarm bells to all LDCs. The international community thought that the LDCs would be particularly hit by the crisis and all growth projections were revised downward. After a few months, it became clear that the LDCs were going to be hit less than expected by this crisis than originally thought. Why? Is it due to improved resilience?

The previous financial crises of 1975, 1980 and 1992 took a heavy toll in the LDCs through (i) fall in trade, (ii) reduction in external financing, notably foreign aid and foreign direct investment, and the usual negative consequences in the countries' exchange rates, balance of payments and government finances, (iii) broad based poverty increases due to the absence of social security and the constraints in undertaking countercyclical fiscal programmes, and (iv) underdeveloped domestic financial sectors.

The 2008-9 crisis did not spare the LDCs, which were affected primarily through a trade contagion. Between 2008 and 2009, the average exports of the LDCs, excluding fuels, fell by 13.5%[a], while the average real GDP growth fell by 3 percentage points, although it remained positive throughout (see table 2.1). Their dependence on a few products for most of their exports, compounded with the collapse of the commodity prices during the initial phase of the crisis and the collapse of aggregate demand from developed countries, severely affected the value of their merchandise exports, which fell by 9% between September 2008 and March 2009. Averages mask however the large differences in impact experienced by the individual LDCs. The greatest fall has been experienced by the oil and mining exporting countries, due to the burst of the commodity price boom. They saw their exports contract by 12% during the same period. Services, notably transport and tourism, have been also

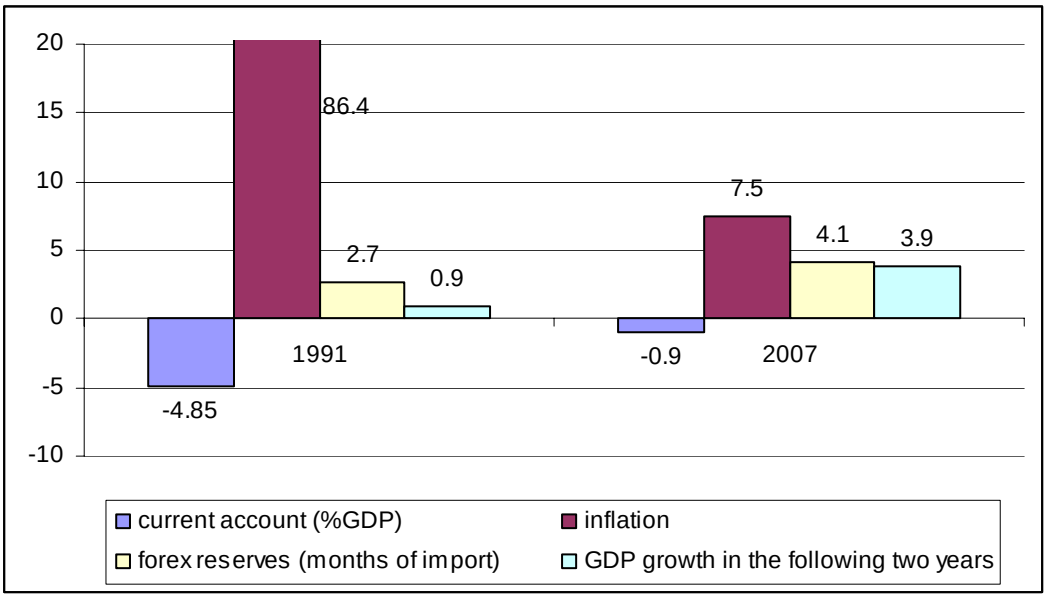
severely affected by the crisis, mostly due to the postponement of buying durable consumer and investment goods.

In the second half of 2009, there were strong signs that the crisis was coming to an end. Between April and October 2009 total merchandise exports of LDCs increased by some 7%. Such a rebound could be explained by the economic and production changes that have occurred in the LDCs over time. They have expanded their specialization in dynamic products (fuels and minerals) and have found new markets for their products, notably in the world's two most dynamic markets, China and India. The recovery of the latter, supported by stimulus packages, has strengthened global demand and international supply chains, facilitating the rebounding of global demand and of commodity prices. The manufacture-exporting LDCs have been capable, on the other hand, of avoiding large trade falls and have increased their market share in the consolidated markets of developed countries. One study reported that the resilience shown by the agriculture-exporting LDCs is due to their export specialization in 'soft' commodities (tea, coffee, etc.), which did not experience a drastic decline in prices or demand on the global markets.

These positive changes need to be put in perspectives, as it is true that the LDCs have increase market share with other developing countries, but they have done so in traditional products, mostly commodities and fuel, which have reinforced their already strong dependence on commodities. The manufacture-exporting LDCs have managed to increase their market share for their products through the painful adoption of strategies aiming at shrinking prices and profits.

The previous crises have highlighted the need to improve the macro-economic management of the countries. As shown in box chart 1, the LDCs have improved their macro-economic position before the onset of this new crisis. The chronic fiscal deficits, high inflation and negative current account balances that left LDCs particularly exposed to the shocks of the past, did not, on average, seem to have posed a problem this time. These figures may hide the lagging impact that the fuel and food crises have had in the current and financial account of most LDCs' governments.

Box chart 1: Selected macroeconomic indicators before the 1992 and 2008 crises



Lastly, the underdeveloped financial sector in LDCs made them less prone to contagious than other regions in the world. LDCs' banks did not have a large exposure to toxic assets and shown to have been well capitalized and less leveraged, thus less prone to failure. But these same banks are not playing the role of credit providers now more than they did during the past 10 years, thus reinforcing the chronic lack of access to credit that plagues the LDCs. Furthermore, preliminary estimates show that regional trade prove to be a more resilient source of demand than global trade and thus the LDCs better integrated regionally may have been less hurt.

Notes:

[a] Decline originating from the comparison of the export performance of the first two quarters of 2009 compared to 2008. Including mineral fuels, the decline would have been of the order of 43%.

Sources:

ITC (2010) ITC Trade Map Factsheet: LDC Trade Recovery in 2009.

Kandiero, T., Ndikumana, L. (2009) Supporting the World Trade Organization Negotiations: Looking beyond Market Access. ?". In Baldwin R. (ed.) "*The Great Trade Collapse: Causes, Consequences and Prospects*" VoxEU.org publication, pp. 189-199.

Karshenas, M. (2009) "The Impact of the Global and Economic Crisis on the LDCs". Technical Report prepared for UN-OHRLSS.

Naudé, W. (2009) "The Financial Crisis of 2008 and the Developing Countries", UNU-WIDER Discussion Paper N. 01

Brixiova, Z., A. B. Kamara, L., Ndikumana (2010) Containing the Impacto f the Global Crisis and Paving the Way to Strong Recovery in Africa. African Development Bank. Policy Brief on the Financial Crisis No. 2.

Pinkovskiy, M. and Sala-i-Martin, X. (2010) "African Poverty is Falling … Much Faster than You Think". Columbia University working paper.

WTO (2010) "Market Access for Products and Services of Export Interest to LDCs". WT/COMTD/LDC/46/Rev.1.

Lastly, the effects of the food, fuel and financial crises are undermining the conditions for attaining the MDGs. The little growth-driven improvements made during the past decade have been washed away by the repercussions of the three crises on the economies of the LDCs. Given the social implications that the MDG achievements can lead to, it may become necessary to include MDGs into national development strategies, with clear financing commitments from bilateral and international development partners.

Lessons learnt

The following lessons can be drawn from the LDCs' experience of the past decade.

First, the LDCs have experienced high GDP growth rates throughout the 2000s, which have surpassed the target rate of 7% per annum listed in the Brussels' PoA. Such growth rates were, however, largely dependent on the boom and burst cycle of the internationally-defined commodity prices (mostly fuel and mineral) and were not broad-based or inclusive, leading to an increase in heterogeneity within the LDC group. The internationally-driven sources of growth have led to high growth rates indeed, which have left the LDCs more specialized in traditional commodity exports rather than leading them to undertake modern structural changes. The share of manufacturing in GDP has remained stagnant, excluding the marginal progress experienced by the Asian LDCs in low-tech manufacture, while the share of agriculture has increased in 18 LDCs, highlighting an on-going process of de-industrialization. Furthermore, such rapid growth rates have not led to the expected social and employment advances.

Second, the drastic rebalancing and stabilization seen necessary under the conventional consensus have improved the macroeconomic position of the LDCs during the 2000s: their current account and trade balance have improved, inflation has been drastically reduced, increase in foreign reserves, and fiscal reforms have led to increases in revenues. Although this improvement in the macroeconomic sector may have led to an increase in resilience to withstand the negative effects of external shocks, the extent of the macro stabilization carried out only provided a ‘cushion’ rather than a growth-‘catapult’ effect. Questions remain on why the improvement in the LDCs' macroeconomic situation and resilience to withstand possible external shocks has not led to structural progress and to an allocation of resources to more productive sectors. Monetary policy (including managed inflation, exchange rate and capital flows policies) should aim at sustaining a pro-investment macroeconomic framework and fostering productive capacities through less tight inflation targeting and minimal exchange rate volatility and capital flight. If domestic resources and domestic demand had been the driver of growth then more structural changes would have occurred.

Third, the decade was marked also by the absence of strategic tools, such as industrial policies, balanced public-expenditure programmes and trade policy options other than those based on the opening up of the domestic markets, which could have facilitated the allocation of productive capacities and would have led to the needed structural change.

Fourth, to bring about modern structural changes for sustained and sustainable development, based on product diversification and manufacture/industrial development, requires a rebalancing of the role of the state and the market, as well as increased financial provisions to enable Governments to fulfill their roles and mandates.

III. Structural progress in LDCs: an analytical example

Twelve of the 49 LDCs stand out as having demonstrated rapid structural progress, though with uneven consequences in terms of improvements in standards of living and the general well-being of the population. Although less than a third of the LDCs could potentially graduate from LDC status, the vast majority does not foresee graduation in the near future.

Criteria of structural progress

The notion of structural progress has been tested through the following three criteria: (i) enhanced capabilities - key explanatory factor without which competitive progress and productive capacities based on a greater knowledge content would be unattainable; (ii) improved economic specialization - an essential part of the structural landscape every country ought to be able to create; it implies a sharp understanding of the country's comparative advantages and of the international demand, an enabling environment for investors, and a density of inter-sectoral linkages; (iii) equitable poverty reduction – the expectable outcome of the other two spheres of progress, what ultimately matters most to the people.

In descriptive terms, a country will be deemed to undergo genuine structural progress if poverty reduction has been taking place in a fairly equitable manner, and if this progress is at least partly the result of improvements in the economic specialization of the country, through a greater knowledge-related input denoting enhanced capabilities.

Enhanced capabilities

Fourteen indicators (listed in Annex 1) are used simultaneously, for each LDC, for assessing actual and prospective capabilities. These indicators cover the following relevant capability factors: efforts toward higher education; access to, and use of, information and communication technology (including Internet); expenditure in research and development; and enterprise creation.

Improved specialization

The aim of improving economic specialization is as important to LDCs as it is to more advanced countries. Natural endowments and cultural assets frequently determine or influence the pattern of specialization, which is typically dominated by agricultural, mineral, or tourism activities. Few LDCs managed to prominently specialize in low tech textile industry thanks to a competitive (inexpensive and industrious) labour force, and the existence of a class of

entrepreneurs. Specialization is here generically understood as the product composition of the economy, as opposed to the relatively common notion whereby being "specialized" implies concentrating on a particular activity and failing to diversify.

Improving one's economic specialization to take advantage of globalization forces is for any LDC a vital socio-economic goal. It implies a fine understanding of what is feasible in a given environment (an evolving international demand), and a capacity to mobilize idle factors. While "enhanced capabilities" are almost certainly a factor of the "improved specialization" dynamics, the possibility of fostering a new specialization that does not stem from the capability factor may exist. Evidence of sector-related transformation (notably in the oil industry) among LDCs shows that certain acute forms of specialization owe little to indigenous capabilities and may have limited employment and poverty reduction effects. They may even result in highly inequitable income and welfare distribution. Ideally, a rewarding specialization profile should be earned through enhanced capabilities over time, and should have fairly distributed poverty reduction effects.

Measuring specialization improvements normally implies analyzing the value-added (GDP) structure of the economy, and therefore, observing changes in the relative importance of tradable and non-tradable, goods and services sectors alike. In the absence of sufficiently reliable national accounts data for the LDCs, resorting to the structure of goods and services exports provides a more satisfactory picture of the economic specialization landscape. The data in Annex 2 allow a comparison between the export specialization of LDCs in 2008 on the one hand (latest available estimate for most LDCs), and in 1990 on the other. Goods and services sectors, sometimes at product level, are ranked in decreasing order of nominal value, based on national export statistics and balance of payments data. This focus on exports is not less satisfactory than what national accounts data would have offered because the sphere of exports is the area of transformation that most influences the economy as a whole.

Equitable poverty reduction

Measuring income distribution and poverty reduction in a homogeneous manner across the LDC category is difficult, as income inequality and spatial inequity indicators, based on household income and expenditure surveys, are sparsely available. In this context, an alternative approach to the criterion of equitable poverty reduction implies resorting to a mix of income-specific and social indicators that, if examined jointly, provide a good indication of the changes in income inequality. Thirteen indicators of changes in the areas of health, access

to drinkable water, primary school performance (with particular reference to girls' education), per capita income, income distribution, and unemployment are used for that purpose (for details see note to Annex 1).

For example, child mortality (one of the listed indicators) is a variable that allows fair assumptions with regard to the question of equitable poverty reduction: substantial improvement in the child mortality rate is likely to reflect a fair measure of progress toward lesser inequalities; on the other hand, a poor (if not decreasing) score in that variable in a country that has been enjoying rises in its per capita income will almost certainly be a sign of greater inequalities. In the few cases of LDCs with a decreasing income, therefore in a context of overall impoverishment, the probability of greater equity is near to zero.

Relationship with two other progress avenues

Achieving structural transformation is a precondition for making progress toward graduation from LDC status and the Millennium Development Goals (MDGs) (see figure 3.1). Though less likely to allow measurements of the extent to which relevant countries have achieved irreversible progress, the LDC graduation and MDG criteria cast useful light on the implications of structural progress. The flow chart places the three identifying criteria of structural progress at the centre of the analytical framework, while Table 3.1 focuses on the relationship between each one of the LDC criteria or each relevant MDG on the one hand, and the goal of structural progress on the other.

If it takes place, structural progress is likely to translate into progress toward graduation thresholds under the criteria for identifying LDCs. The asymmetry between the full arrow from structural progress to graduation and the discontinued arrow from graduation to structural progress is corroborated by pending or recent graduation cases: progress toward graduation does not necessarily imply that structural progress is underway, whereas genuine structural progress as illustrated in the central part of the graph is likely to warrant graduation.

As Table 3.1 shows, the relevance of the LDC graduation criteria to the criteria used to identify structural progress is only partial, with only two points of convergence out of nine. Among the listed MDG targets structural progress relates to, one observes 12 points of clear relevance out of 30, and 11 binomials under which MDGs appear to have little or no direct relevance to the goal of structural progress. In short, the performance of LDCs under the

graduation criteria and the MDGs can only be regarded as a set of data of complementary value if compared with the criterion of structural progress.

Figure 3.1: Structural progress, progress toward graduation, progress under the Millennium Development Goals

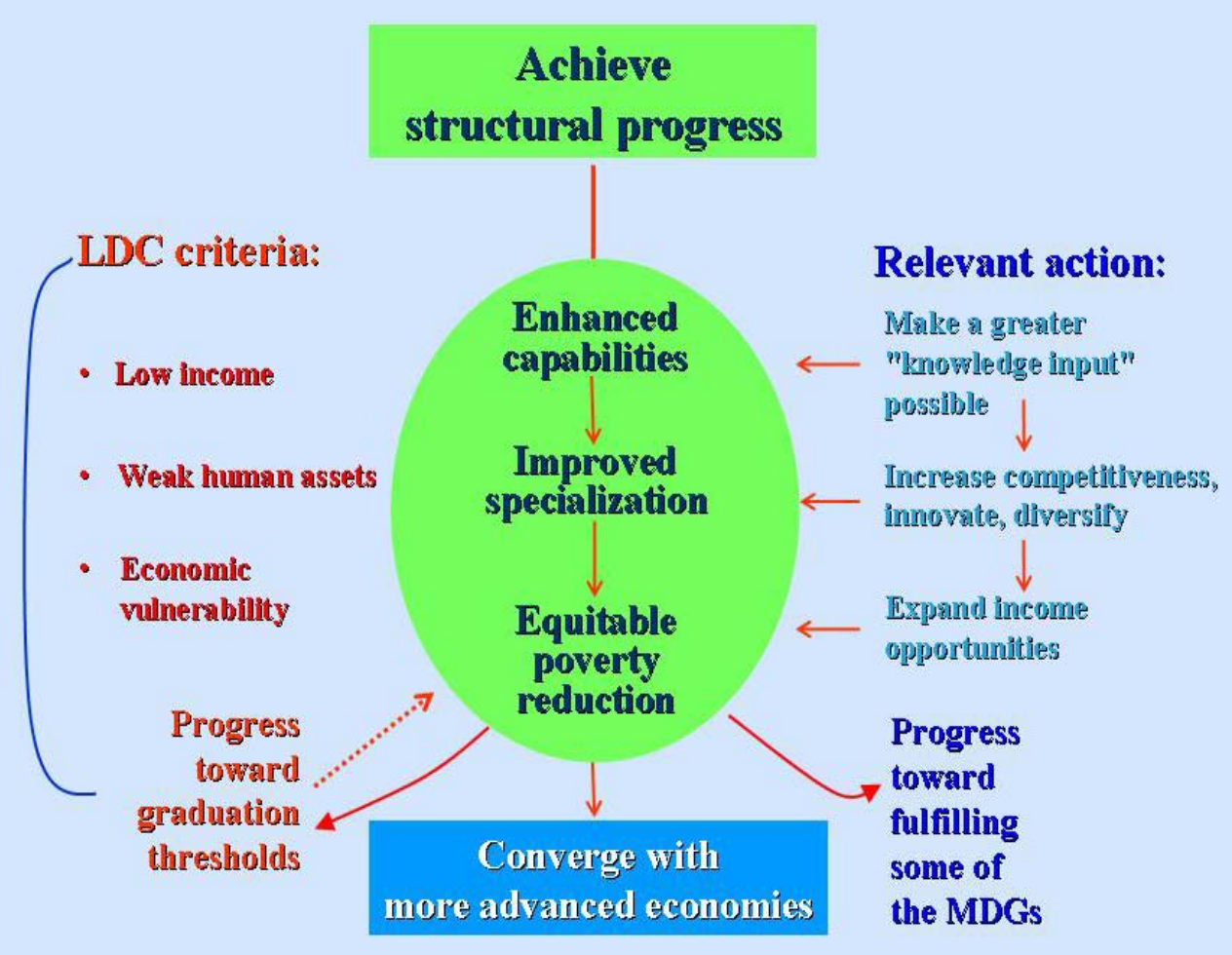


Table 3.1: LDC graduation criteria and MDGs: are they relevant to structural progress?

2 other sets of criteria: **. LDC graduation** **. MDGs**	**Enhanced capabilities**	**Improved specialization**	**Equitable poverty reduction**
LDC graduation criterion 1: Higher per capita income	No direct relevance	No direct relevance	**Relevance in some countries only** (higher national income may allow worsened inequalities)
LDC graduation criterion 2: Improved human assets	Education components of the HAI (secondary school enrolment; adult literacy) are **relevant to some extent only**	No direct relevance	Health components of the HAI (nutrition; child mortality) are considered **relevant** to the goal of equitable poverty reduction
LDC graduation criterion 3: Lower economic vulnerability	No direct relevance	Exposure components of the EVI (share of vulnerable sectors in GDP; merchandise export	No direct relevance

		concentration) are **relevant** to the question of improved specialization	
Target 1 (under **MDG-1**): Reduce extreme poverty by half	Limited direct relevance	Limited direct relevance	**Relevance in some countries only** (higher national income may allow worsened inequalities)
Target 2 (under **MDG-1**): Reduce hunger by half	Limited direct relevance	Little direct relevance	**Relevance in most countries** (sizeable reduction in hunger is likely to reflect some equity in the poverty reduction pattern)
Target 3 (under **MDG-2**): Secure universal primary schooling	**Relevance in the long run** (basic education for all today is a *sine qua non* for enhanced capabilities tomorrow)	**Relevance in the longer run** (education for all today is a *sine qua non* for improved specialization eventually)	**Relevance in the foreseeable future**, given the correlation between literacy and poverty reduction in general
Target 4 (under **MDG-3**): Secure girls' equal school enrolment	**Relevance in the long run** (girls' education today will fuel communities' capabilities tomorrow)	**Relevance in the longer run** (girls' education today may open rewarding specialization avenues tomorrow)	**Relevance in the foreseeable future**, given the correlation between female literacy and poverty reduction
Target 5 (under **MDG-4**): Reduce child (under 5) mortality by 2/3	Limited direct relevance	Little direct relevance	**Relevance in most countries** (sizeable reduction in child mortality may reflect some equity in poverty reduction)
Target 6 (under **MDG-5**): Reduce maternal mortality by ¾	Little direct relevance	Little direct relevance	**Relevance in most countries** (sizeable reduction in maternal mortality may reflect some equity in poverty reduction)
Target 10 (under **MDG-7**): Improve access to safe drinking water and basic sanitation	Indirect relevance (improved access to water and sanitation will allow better human development, thereby fuelling capabilities)	Little direct relevance	**Relevance** (progress in access to safe water and basic sanitation is likely to reflect some equity in poverty reduction)
Target 11 (under **MDG-7**): Improve the lives of slum dwellers	Little direct relevance	Little direct relevance	**Possible relevance**
Target 16 (under **MDG-8**): Offer decent, productive work to the youth	No direct relevance (creation of steady employment does not necessarily imply that human capabilities have been enhanced)	**Relevance** only if the new employment opportunities reflect greater competitiveness or sound diversification	**Likely though not guaranteed relevance**, depending on the width of employment creation (rural; urban)
Target 18 (under **MDG-8**): Increase availability of ICT and other technology	**Likely relevance**: availability of technology would not augment significantly unless human capabilities are also on the rise	**Likely relevance**: availability of technology will probably reflect greater competitiveness and scope for higher value added	**Possible relevance** (if technological progress reflects the rise of a middle class)

Sources: UNCTAD, partly based on: UN Millennium Project: Report to the UN Secretary-General, Overview, New York, 2005, pp. xii-xiii.

Progress toward graduation thresholds

Prospects for graduation from LDC status exist for less than half of the countries presently on the list of LDCs. Table 3 lists 18 countries with graduation prospects to a varying extent, ranging from cases of scheduled graduation with a time frame, to hypothetical cases of graduation in the long run.

Nine countries have been demonstrating significant progress toward graduation thresholds (second column of Table 3.2). One of these States, **Angola**, is evolving toward qualification for graduation by virtue of the 2005 amendment to the graduation rule whereby a country will be considered a graduation case if its per capita income has risen to a level at least twice higher than the relevant graduation threshold, regardless of the country's performance under the other two criteria.

In three other LDCs (**Bangladesh**, **Myanmar**, **Nepal**), the principal factor of progress toward graduation has been an improving performance under the economic vulnerability criterion. Two other common features of these States are an improving score under the graduation threshold relevant to the human assets criterion, and a poor performance in terms of per capita income. The latter is essentially explained by a large population, and tends to fuel an erroneous impression about development prospects: the three States paradoxically have had, despite political disruptions, some of the most dynamic economies among LDCs, all three with a growing entrepreneurial class. Two LDCs within the sub-group of countries demonstrating significant progress toward graduation thresholds are characterized by dual socio-economic progress in the form of enviable rises in per capita income and fair improvements in human assets levels: **Bhutan** and **Lesotho**. The two States owe this progress to successful diversification in non-mineral activities, which augurs well for their capacity to eventually meet graduation levels.

Table 3.2: Sub-grouping of 18 LDCs with varying graduation prospects after the 2009 review of the list of LDCs

Countries graduating from LDC status	**Countries demonstrating significant progress toward graduation thresholds**	**Potential graduation cases in the longer run, subject to further consistent efforts**
Equatorial Guinea *(CDP recommendation to graduate the country was endorsed by ECOSOC on 31st July 2009)* **Maldives** *(To graduate on 1st January 2011)* **Samoa** *(To graduate on 17 Dec. 2010 in principle)*	**Angola** *(Likely to be recommended for graduation in 2012 --with exit in 2016-- by virtue of the 2005 amendment to the graduation rule)* **Bangladesh** *(Future eligibility for graduation contingent upon improvements in nutrition and secondary school enrolment levels)*	**Cambodia** *(Subject to significant improvement in secondary school enrolment and reduced export instability through further diversification)* **Djibouti** *(A possible graduation case in the long run if steady economic activities raise the national income further)* **Laos**

	Bhutan *(Future eligibility for graduation contingent upon improved secondary school enrolment and adult literacy)* **Kiribati** *(Future eligibility for graduation contingent upon improved economic specialization, perhaps through an enhanced tourism product)* **Lesotho** *(A borderline case on two of the three graduation criteria: per capita income and human assets)* **Myanmar** *(A borderline case on two of the three graduation criteria: human assets and economic vulnerability. Some progress on school enrolment would technically qualify the country for graduation)* **Nepal** *(Future eligibility for graduation contingent upon improved education status in general)* **Tuvalu** *(Technically meets graduation thresholds, but not yet considered a graduation case because of its extreme vulnerability)* **Vanuatu** *(Technically meets graduation thresholds, but not yet considered a graduation case because of its high vulnerability)*	*(Subject to continued improvement in secondary school enrolment and a reduced incidence of homelessness caused by natural disasters)* **Sao Tome and Principe** *(A possible graduation case within less than a decade as a result of expected oil revenue)* **Senegal** *(A potential graduation case in the long run if the diversification trend fuels the national income further)* **Yemen** *(Subject to a more beneficial impact of oil revenue)*

Source: UNCTAD

Three other LDCs with eventual graduation prospects are emblematic examples of the "island paradox": **Kiribati**, **Tuvalu** and **Vanuatu**. All three are among the most vulnerable countries in the world economically and otherwise, and their high vulnerability paradoxically concurs with a performance consistently above, or near to, the graduation threshold relevant to the low-income criterion. The apparent prosperity which their relatively high income status reflects essentially results from their economic specialization, with international tourism and "rental income" as the two main sources of revenue explaining this situation, which is unique to small island developing States. Tuvalu and Vanuatu are recognized potential graduation cases, something Kiribati ceased to be in 2009, when the Committee for Development Policy observed that Kiribati had receded back under the graduation line relevant to low income.

Six countries can be considered as potential graduation cases in the longer run, subject to further consistent efforts: **Cambodia**, **Djibouti**, **Laos**, **Sao Tome and Principe**, **Senegal**, and

Yemen. Economic diversification is the engine of the foreseen progress in four of these six LDCs, either in the manufacturing area (Cambodia, Laos, Senegal) or in the sphere of international services (Djibouti), while graduation prospects rest on oil exports in the other two States in this sub-group (Sao Tome and Principe and Yemen).

Box 2 discusses the aftermath of graduation for the only two LDCs, Botswana and Cape Verde, that managed to leave the category. Their experience shows that both countries have undertaken structural changes prior to leaving the category, which have enabled them to graduate out of the LDC group.

Box 2: The two graduation cases in 36 years

At the creation of the category, the possibility of graduation from LDC status was not envisaged. A graduation mechanism was introduced by the Committee for Development Planning (CDP) and ECOSOC in 1991, and applied for the first time in 1994, in the case of **Botswana**. In that year, Botswana's per capita income amounted to nearly four times the graduation threshold, and the country's score under the quality of life criterion was also well above the graduation line. The nation's economic progress was largely due to the prosperity diamond extraction had generated. At the same time, the enviable social performance of the country largely resulted from the sound use that had been made of aid inflows. Some key socio-economic challenges remain unanswered as the country, has been severely hit by the HIV-Aids epidemic, an obstacle to enhancing local capabilities. With an estimated per capita GNI of $6,640 in 2008, a post-1994 GDP annual growth rate of 6.5%, a secondary school enrolment ratio of 80% and records of economic diversification, Botswana has experienced improvements since its time as LDC.

The graduation of **Cape Verde** was a more complicated matter, which brought the UN to reorganize the graduation rule in 2004. Cape Verde's progress under the per capita income and human assets criteria was noted as early as 1997, but it was only a decade later (in December 2007) that the country was effectively taken out of the list of LDCs, on grounds of stable improvement under the same two criteria. Cape Verde policy makers accepted the idea of graduation in 2004, after seven years of consistent opposition to it. With steady tourism growth as a main engine of the economy, improving capabilities, and fall in poverty, Cape Verde demonstrates structural progress is taking place. However, the limited scope for diversification and the high dependence on aid and remittances make the country no less vulnerable to external factors today than it was a decade earlier.
Source: UNCTAD

Structural progress: assessment of changes in capabilities

Simultaneous examination of trends under the indicators relevant to productive capabilities as explained earlier reveals that less than a third of all LDCs (an estimated 14 out of 49) demonstrate meaningful improvements in terms of capabilities: Bhutan, Burkina Faso, Cambodia, Djibouti, Laos, Lesotho, Maldives, Rwanda, Samoa, Senegal, Tanzania, Uganda,

Vanuatu, and Zambia. Progress in the area of educational achievements at secondary and tertiary levels is a common feature of the human capital landscape of these countries. Capability enhancements through better access to information and communication technology, sometimes resulting in good enterprise creation records, are also found in a good number of these countries, albeit to a varying extent. Annex 1 contains a country-by-country analysis of the structural progress undertaken during the past two decades. It also shows that several countries outside this set of 14 LDCs also demonstrated some progress under the human capital/ capability criterion, but the significance of this progress is deemed less worthy of being noted, however promising it may be.

Outstanding examples of success under this criterion of structural progress are Bhutan and Senegal, in addition to three small island LDCs, including the two next "graduates" (Maldives and Samoa), and one potential graduation case (Vanuatu). It is important to note that the poor overall performance recorded by Bangladesh in the area of capabilities is mostly explained by the country's large population, while the enterprise creation record of Bangladesh, naturally a facet of "capabilities", is actually one of the most enviable among all LDCs.

Structural progress: assessment of changes in economic specialization

Over half of the LDCs (26 out of 49) have demonstrated, over the period 2000-08, positive structural transformation in the form of improved economic specialization[17]. The "positive" nature of the transformation is considered here in potential terms rather than in the light of actual socio-economic results. For example, if a specialization profile sharply dominated by hydrocarbons arose over the decade, it will be regarded as a positive development in the potential sense because of the sudden financial benefits this specialization generated, whether an overall positive impact is effectively observed or not. If oil revenue happens to translate into increased inequalities, the issue at stake --however serious it may be-- will be a governance issue, and economic specialization will still be regarded as having improved in the potential sense, in comparison with the poorer economic status that prevailed before oil poured in.

Eleven of these 26 countries, with dual records of improved specialization and enhanced capabilities, meet two of the three criteria of structural progress. Only one LDC (Samoa)

[17] Angola, Bangladesh, Benin, Bhutan, Cambodia, Comoros, Djibouti, Equatorial Guinea, Ethiopia, Gambia, Laos, Lesotho, Madagascar, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Rwanda, Senegal, Sudan, Tanzania, Uganda, Vanuatu, Yemen.

meets another pair of such criteria, namely, capability enhancement and equitable poverty reduction concomitantly. Details of the economic specialization pattern of LDCs as analyzed through merchandise and service export data over the 2000-2008 period (and in comparison with the preceding decade: 1990-2000) allow the following observations:

(i) 7 countries continue to specialize in agriculture or forestry (primarily for export, additionally for the domestic market) and have not gone through major changes over the last 10 to 20 years: **Burkina Faso**[18], **Burundi**[19], **Guinea-Bissau**[20], **Malawi**[21], **Solomon Islands**[22], **Somalia**[23], **Timor-Leste**[24];

(ii) 7 countries have maintained a mix of agriculture (or fisheries) and light manufacturing (**Afghanistan**[25]); or fisheries and minerals (**Mauritania**[26]), or agriculture and services (**Benin**[27], **Ethiopia**[28], **Liberia**[29], **Uganda**[30]); or agriculture, minerals and services (**Mali**[31]). This specialization has not developed particularly fast in any of these countries, some of which already demonstrate an enviable level of diversification (notably Ethiopia and Uganda, and to some extent, Benin and Mali);

(iii) 6 countries continue to exploit their mineral endowment, and have not recorded much change in their economic specialization over one to two decades: **Central Africa Republic**[32], **Congo (Dem. Republic of the)**[33], **Guinea**[34], **Niger**[35], **Sierra Leone**[36], and **Zambia**[37];

(iv) 5 countries have already reached a stage a hyper-specialization in hydrocarbons (**Angola**[38], **Equatorial Guinea**[39]), or shown signs of an evolution toward this type of extreme

[18] Cotton
[19] Coffee, tea
[20] Cashew nuts
[21] Tobacco, tea
[22] Timber
[23] Livestock
[24] Coffee
[25] Handicraft, dried fruits
[26] Iron, oil, fish
[27] Cotton, tourism
[28] Air transport, coffee, tourism
[29] Rubber, tourism
[30] Coffee, tourism
[31] Gold, cotton, tourism
[32] Diamonds, wood products
[33] Diamonds, oil, cobalt
[34] Bauxite, gold
[35] Uranium
[36] Diamonds, bauxite
[37] Copper

specialization (**Chad**[40], **Sudan**[41], **Yemen**[42]). In 3 of these countries (Chad, Equatorial Guinea, Sudan), these developments took place rapidly, though not with enviable benefits for the relevant populations;

(v) 4 countries have soundly progressed toward specialization in textiles (clothing, garments, and other textile products), with this export sector accounting for 55 to 65% of total exports of goods and services (**Bangladesh**, **Cambodia**, **Lesotho**), or for 20% (**Nepal**). In two of these four countries (Cambodia and Nepal), tourism has risen to a comfortable second place among foreign exchange earners;

(vi) a large domination of manufacturing activities, or a manufacturing and service mix, prevails in 3 countries: **Bhutan**[43], **Togo**[44], and **Mozambique**[45];

(vii) in 9 countries, the export economy is massively or sizeably dominated by the tourism industry: **Comoros** (43% of total exports of goods and services), **Gambia** (33%), **Maldives** (76%), **Rwanda** (30%), **Samoa** (70%), **Sao Tome and Principe** (42%), **Senegal** (19%), **Tanzania** (32%), and **Vanuatu** (54%). While this specialization was already observed 10 to 20 years ago in 5 of these countries (Comoros, Gambia, Maldives, Samoa, Vanuatu), it results from recent, sometimes spectacular progress in the 4 others: Rwanda, Sao Tome and Principe, Senegal and Tanzania. The latter country stands out, among all LDCs, as one of the most convincing examples of structural progress through sound specialization: within two decades, the share of gross tourism receipts in total exports of goods and services rose from 5th to 1st place (from 5% to 32% of total exports). This makes Tanzania, for the benefit of increasing segments of its population, a service-dominated economy, with services now accounting for half of all foreign exchange earnings, well above minerals (23%), and agriculture and fisheries (12.5%);

(viii) other specialization patterns dominated by international services are found in two countries that are neighbors to a large land-locked nation: **Djibouti**[46] and **Eritrea**[47];

---

[38] Share of crude and refined petroleum in total exports of goods and services in 2008: 94.6%
[39] Share of crude petroleum and methanol in total exports of goods and services in 2008: 98.9%
[40] Share of crude petroleum in total exports of goods and services in 2008: 84.5%
[41] Share of crude and refined petroleum in total exports of goods and services in 2008: 90.9%
[42] Share of crude and refined petroleum in total exports of goods and services in 2008: 80.8%
[43] Electricity, metal products
[44] Cement, transport
[45] Aluminium, electricity, tourism, transport
[46] Port and transport-related services

(ix) 4 countries demonstrated, up to 2008 or 2009, a balanced mix of primary, manufacturing and service-related activities: **Haiti**[48], **Lao People's Democratic Republic**[49], **Madagascar**[50], and **Myanmar**[51];

(x) finally, two LDC economies are dominated by "rental income", i.e. revenue arising from assets that were inherited from unique geographical or exotic features, as opposed to endogenous productive capacities: fishing rights made possible by a large exclusive economic zone (**Kiribati**); philatelic sales and revenue from leasing of an Internet domain name (**Tuvalu**).

The following three areas of specialization can nevertheless be singled out, as their evolutions have implications on the depth and durability of structural progress: (i) hydrocarbon (oil, methanol) exports have allowed rapid --in some cases, phenomenal-- increases in income levels, generally with little or no noticeable impact in terms of capabilities or poverty reduction; (ii) textile activities have a less visible impact on income levels, yet genuine social implications through expanded employment opportunities; this specialization generally denotes some progress in terms of capabilities, and involves a measure of poverty reduction; (iii) international tourism has had varying multiplier effects on relevant LDCs, and has induced very uneven benefits through local linkages. Examples of this range from the case of Maldives, where all inputs except fish are imported and hotel personnel is largely expatriate, to the spectacular case of Tanzania, where the hospitality industry has achieved economic linkages with local suppliers, thereby demonstrating the potentially powerful catalytic impact of the tourism industry.

The examination of the specialization profiles reveals that improvements in the economic specialization of LDCs are mainly a privilege of the circle of countries with "earned specialization". LDCs with an "inherited" specialization profile or economic specialization "by default", when they did experience improvements, remained generally far from enjoying full-fledged structural progress. This underscores the importance of supporting LDCs in quest of structural progress through "earned specialization".

[47] Port, transport, tourism
[48] Clothing, tourism, agriculture, etc.
[49] Copper, timber, garments, gold, tourism, etc.
[50] Clothing, tourism, sea food, spices, etc.
[51] Natural gas, pulses, timber, garments, etc.

Structural progress: assessment of changes with regard to the objective of equitable poverty reduction

Though many pockets of progress are visible among the poverty reduction profiles of LDCs, no country within the category, other than Samoa, seems to have undergone a clear equitable poverty reduction. Despite its progress under the other two criteria, Maldives, does not meet this poverty reduction objective because of the uneven distribution of economic opportunities and benefits within its geographically dispersed population.

Some specific observations of relevance to the issue of poverty alleviation and equity can be made. Progress on the health front was achieved in Bangladesh over the last two decades (from 150 per 1,000 live births in 1990 to 60 in 2007). Other examples in the same vein are Comoros, Laos, Nepal and Yemen, as well as the small island LDCs, where household surveys and health indicators point to fairly equitably distributed poverty reduction patterns among peripheral islands if not between the capital island and its periphery. Not all small island LDCs enjoy similar situations with regard to the question of poverty reduction. While Samoa, a State consisting of only two islands, ranks best among all LDCs in terms of health, education and equitable poverty reduction, archipelagoes with large numbers of inhabited islands (such as Maldives, the Solomon Islands, Vanuatu) are considerably slower in achieving balanced poverty reduction, because those living in the periphery will always be at a disadvantage for geographical reasons.

Structural progress: overall assessment

Table 3.3 summarizes the main result of the application of the methodology for assessing structural change and its three chosen components. The 12 countries listed in the first column demonstrated genuine improvement under two of the three structural progress criteria. The 17 States appearing in the second column are considered to have shown perceptible improvement under only one of the three structural progress criteria. Finally, the 20 LDCs listed in the third column arguably failed to demonstrate meaningful progress under any of the three criteria.

No single LDC meets all three structural progress criteria. The three States nearest to graduation from LDC status only meet a few: **Maldives** meets the capability and specialization criteria; **Samoa** meets the capability and poverty reduction criteria; **Equatorial Guinea** meets the specialization criterion only.

Table 3.3: 49 Least Developed Countries: structural progress or lack thereof over the decade (2001-2010)

Countries demonstrating notable structural progress *(1)*	**Countries in which some elements of structural progress are recognizable** *(2)*	**Countries in which structural progress was marginal or non-existent over the decade** *(3)*
Bhutan	Angola	Afghanistan
Cambodia	Bangladesh	Burundi
Djibouti	Benin	Central African Republic
Laos	Burkina Faso	Chad
Lesotho	Comoros	Congo (Dem. Rep. of the)
Maldives	Equatorial Guinea	Eritrea
Rwanda	Ethiopia	Guinea
Samoa	Gambia	Guinea-Bissau
Senegal	Madagascar	Haiti
Tanzania	Mali	Kiribati
Uganda	Mauritania	Liberia
Vanuatu	Mozambique	Malawi
	Myanmar	Niger
	Nepal	Sao Tome and Principe
	Sudan	Sierra Leone
	Yemen	Solomon Islands
	Zambia	Somalia
		Timor-Leste
		Togo
		Tuvalu

Source: Derived from Annex 1

Lessons learnt

The following lessons can be derived from the above analysis.

First, structural progress is, explicitly or implicitly, a paramount development goal of LDCs, and its importance underscores the superiority of the structural progress criterion over other criteria in any effort to assess the capacity of LDCs to converge with more advanced economies. Progress toward graduation from LDC status and structural progress do not necessarily coincide.

Secondly, the overall performance of LDCs in terms of structural progress has been poor during the past decade: none of the 49 countries is deemed to have met the three structural progress criteria simultaneously, and only 12 met two of these criteria. In two LDCs out of five are economies in which structural progress was either marginal or non-existent over the decade.

Thirdly, a large majority of LDCs are countries with an economic specialization profile that owes little to enhanced capabilities, and generated little --if any-- poverty reduction in an equitable manner. In short, the economic specialization of most LDCs has contributed little to their structural progress. Commendable exceptions to this are found in a few Asian LDCs (textile exporters), and in a number of countries with a growing tourism economy. The other LDCs have a product composition either largely inherited from a colonial past, or concentrated on activities (such as mineral production) that were more often fostered by foreign interests than nurtured endogenously.

Fourthly, the above empirical evidence points to the need for a new reflection on how to respond to the growing heterogeneity of LDCs within a single framework of LDC treatment. A new generation of international support measures for LDCs ought to involve a range of answers and mechanisms that will, in the future, open diversification avenues much more proactively than they had done in the past. This implies more international action toward sector-specific productive capacities.

IV. Integrating in the Global Economy : Trade Performance of LDCs

International trade has been and continues to be a major and growing mainspring of growth for the LDCs. But they account for less than 2% of world's trade in goods and services, face trade deficits and are highly vulnerable to global price fluctuations due to their large export concentration and undiversified export structure. The financial crisis of 2008 has affected the LDCs' trade performance, mostly impacting fuels and minerals, which have been however the first sectors to rebound at the beginning of 2009. Challenges remain on how to increase resilience against future external shocks and commodity prices' boom and burst cycles.

The existing differences in trade performance within the LDCs group

Role of Trade. During the current decade, LDCs' trade performance has boomed thanks to buoyant international prices (driven by speculative forces) and by the expanding international demand, which has led to increasing volumes of exports. Their total trade increased from slightly more than half of their GDP (2000-02) to about 70% of GDP in 2006-07 (see Table 4.1), but it still accounts for less than 2% of world trade. The decade has been marked by robust import and export growth rates, the latter growing faster (at 20% per annum during the period considered) than the former. Thanks to the trade surplus of the oil exporters, the LDC group has experienced a shrinking trade deficit, which masks a deterioration of the trade balance of the remaining countries (see Section II). Given the geographical features of the island LDCs, it is not surprising to find that their GDP is overly reliant on trade (in services).

Table 4.1: LDCs' trade in merchandise goods and services
(% GDP)

		LDC groups				
Variables	*Periods*	LDCs	African LDCs	African LDC less oil exporters	Asian LDCs	Island LDCs
Total trade	2000-02	54.7	58.1	50.3	48.8	119.5
	2006-07	70.1	76.7	61.9	57.6	112.5
Exports	2000-02	23.8	25	19.4	21.8	47.4
	2006-07	34.4	38.7	24	26.7	40.1
Imports	2000-02	30.9	33.1	30.9	27	72
	2006-07	35.7	38	37.9	30.8	72.4

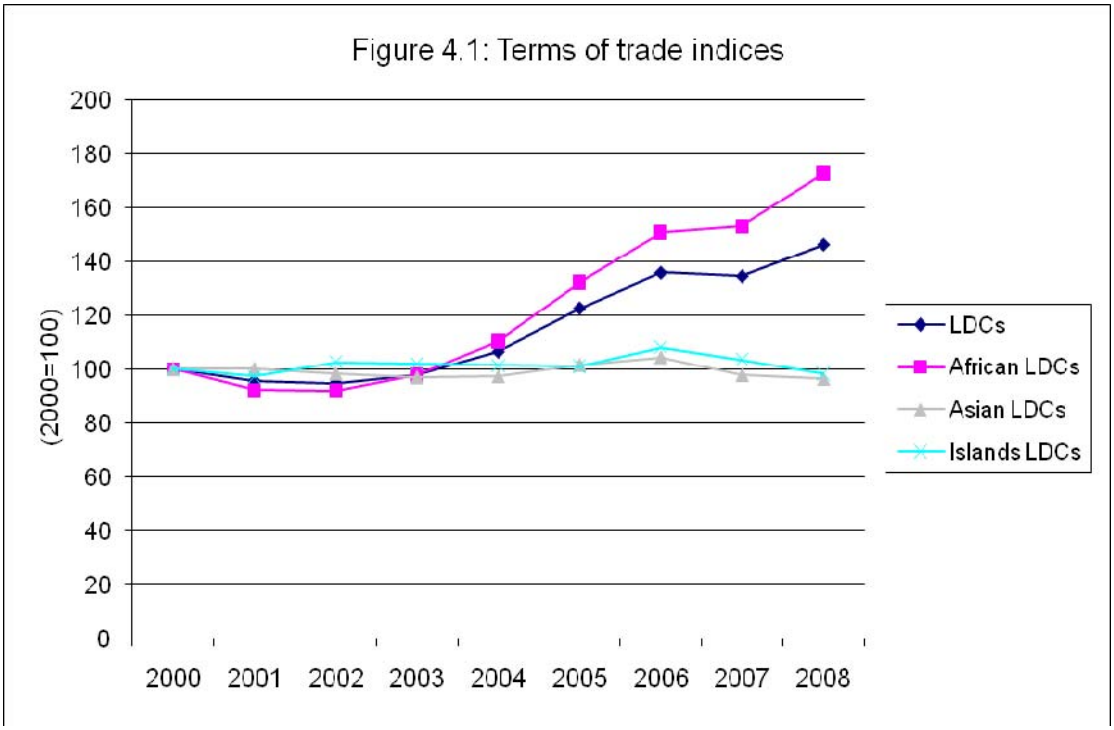
Source: UNCTAD Globstat

Terms of trade. The net barter terms of trade (TofT) for the LDCs as a group has shown a marked improvement from 2000 to 2008[52] (see Figure 4.1). This positive result is driven by the performance of the African LDCs, whose TofT is closely related to the trend in commodity prices. The stagnation of the terms of trade for Asian and island LDCs during the 2000s, compared to the improved TofT for the LDC as a group, can be explained by changing nature of the LDCs' comparative advantage away from manufactures and services, towards commodities. Preliminary estimates on the evolution of the TofT in 2009 show that the crisis took a considerable toll on LDCs' TofT and their recovery is expected to be sluggish. Trade with emerging markets does not appear to be safer for LDCs, as the TofT with Brazil and China showed more detrimental TofT shifts in 2009 compared to developed partners such as Japan[53]. Among the 49 LDCs, only four reported growing TofT with three or more trading

[52] A positive evolution in terms of trade indicates that a country's exports are increasing in price faster than its imports and it is able to import more goods for an equal or lesser quantity of exports. Declining terms of trade indicate that import prices are rising more quickly and that the country must export a larger quantity of goods in order to import the same amount as before.
[53] ITC (2010b)

partners, namely Burkina Faso (cotton exports), Malawi (tobacco), Maldives (fish) and Nepal (carpets).

A potential problem that the LDCs may face is linked to the risk of facing a TofT deterioration, which will worsen the countries' balance of payments.[54] Given the impossibility for many LDCs to continually appreciate their currencies, it is vital that their export prices are stabilized with respect to their import prices. This calls for new international initiatives aimed at stabilizing international commodity prices.[55]



Source: UNCTAD Globstat

Product composition. LDCs' exports are heavily concentrated on a few products (see section V). Such an export concentration has always been an adverse structural feature of the LDCs. The recent trend in commodity prices has reinforced this path by increasing the weight of those commodities and discouraging economic diversification. As shown in Table 4.2, the LDCs have increased their export concentration in fuels, moving from some 40% of total exports in 2000-02 to 59.4% in 2007-08, while the export share of manufactures has

[54] According to the balance of payment-constrained growth model, unless there is a constant influx of foreign capital, a worsening balance of payment will end up constraining growth to preserve the equilibrium in the balance of payment (Thirlwall, 2006)

[55] For example, ever since the 1960s UNCTAD and other international organizations have been calling for the creation of a workable commodity stabilization fund. One study found that for every 1% change in the prices of industrial goods, the prices of primary products fluctuate by some 2.4%. (Thirlwall & Bergevin, 1985)

decreased from 29% in 2000-02 to 19% in 2007-08. The above trend is due to the rapid increase in the price of commodities, which has boosted exports in fuels and minerals, and by the increased international competition on low-tech labour-intensive manufactures and the resulting fall in prices.

Compared to the increase of merchandise trade (25.2%), LDCs' export of services has increased at a more modest level (15.2% per annum): from $7.6 billion in 2001 to $18.5 billion in 2008. In 2008 service exports (mostly tourism) accounted for 3.6% of LDC GDP. Some LDCs, mainly the small and insular ones, given their geographical location and economic specialization are more dependent on service receipts than others.

Trade-supporting services, such as financial services, account for a tiny share (less than 2%) of the overall service export of LDC. Such a low share is likely to hinder the development of business services and provide a binding constraint to raising investment, both domestic and foreign (see Section VI).

LDC Trade and the Financial Crisis. The shrinking in global demand due to the global financial crisis, paired with the drying up of trade finance, caused a sharp contraction of international trade in goods and services, which did not spare the LDCs (see Section II). According to one study, the export value from LDCs had declined by over 34% in 2009, compared with 2008[56]. Some products have been more affected than others during the crisis, either due to a price downturn (for fuels and minerals) and/or to a reduction in the volume of demand. Excluding fuels and minerals, which are subject to price volatility, LDCs' exports resulted to have declined by 8%. The crisis and the related export decline seem to have reached a bottom in the first quarter of 2009, when LDCs' non-oil exports grew by 2% in a year-on-year basis. The market for primary commodities was one of the first to rebound.

While in 2009 LDCs' export values declined by 8.5%, their export volumes expanded by 5.8%. This highlights a pattern of exporting more for less, which highlights LDCs' deteriorating position as price takers in international markets. The largest differences between volume and value growth are found in natural resources (mostly minerals and fuels).[57]

Table 4.2: Composition of LDCs' merchandise exports by main categories
(% total exports)

		LDC groups				
Variables	*Periods*	LDCs	African LDCs	African LDC less oil exporters	Asian LDCs	Island LDCs
Primary commodities less fuels	2000-02	30.2	40.4	72.9	14.2	62.6
	2007-8	21.2	22.2	72.6	17.5	75.7
Fuels	2000-02	39.5	48	5.3	27.2	0.1
	2007-8	59.4	70.5	6	27.3	0.9

[56] ITC (2010a)
[57] ITC (2010b)

Manufactures	2000-02	29.1	10.2	20.2	57.8	33.4
	2007-8	18.6	6.3	20.2	54.7	21.4
of which textiles	2000-02	24.5	7.7	14.4	50.2	15.7
	2007-8	14.3	3.2	10.8	47.1	0.6

Source: UNCTAD Globstat

The trade impacts of the crisis on the LDCs were exacerbated by their export concentration, stronger competition in market of labour intensive low-value added manufactures, laying off of expatriate workers in the affected developed and developing countries, and lower flow of tourists. However, as shown in Section II, remittance flows from expatriate workers turned out to be more resilient than merchandise export receipts.

Changing market destination and the rising importance of the South

Total merchandise exports among developing countries between 2001 and 2007 have more than tripled, moving from $752 billion to $2.4 trillion. LDCs' exports to the South have expanded considerably in value terms and their marginal share in South-South trade has increased from 1.7% in 2001 to 2.4% in 2007. As highlighted in Table 4.3, the markets of developing economies represent 50% of LDCs' total exports (mostly fuel and minerals), up from less than 40% in 1995-96. Although the export share of LDCs to developed countries has decreased from some 60% in 1995-96 to 47.8% in 2007-08, these more mature markets continue to absorb the vast majority of LDCs' manufactured goods, from 67% in 1995-96 to 75.8% in 2007-08.

Table 4.3: Export destination of LDCs products by sector

	Developed countries		Developing countries		*of which China*	
Variables	1995-96	2007-8	1995-96	2007-8	1995-96	2007-8
All products	59.6	47.8	38.8	50.3	4.1	23
Primary commodities	56.5	41.3	38.8	56.9	5	28.1
Primary commodities less fuels	56.3	42	37.8	53.5	1.6	10
Manufactures	67	75.8	27.6	22.9	0.6	1.4

Source: UNCTAD Globstat

In 2008, China overtook the European Union (EU) as the main importer of LDC products, purchasing roughly 23% (mainly fuels and minerals) of LDC exports against 21% for the EU

(mainly manufactures). Other developing economies such as India and Thailand currently play a greater weight in LDC exports than in the past.

The rise of South-South trade (Box 3) provides the LDCs with the opportunity to achieve poverty reducing, welfare and growth-enhancing structural change through the full use of underutilized factors and resources, productivity increases, technological upgrading, new investment flows, and new and/or better export possibilities. Of rising importance is the development cooperation budget that countries like China and India are devoting to LDCs, although in value terms they are much smaller than the disbursements of the largest traditional bilateral donors. In 2007 estimates of aid disbursements of China and India ($1.4 billion) was equivalent to 7% of the ODA from the United States. Typically, the development aid of developing countries is more geared towards productive sectors than that of traditional donors. For example, China is heavily involved in infrastructure projects in Africa, including roads, power plants and telecommunications. China has also signed protocols on debt cancellation with 33 heavily indebted poor countries and LDCs in Africa having diplomatic relations with China, writing off their debts of interest free loans that matured at the end of 2005.[58]

South-South trade could also offer LDCs with the opportunity to diversify away from primary commodities into dynamic product niches, or, generally, into higher value-added products, including manufactures through the more connected and more sophisticated trade with Southern partners than with Northern ones. It could also help reducing risks, filling the gap left by the limitations in policy space by North-South agreements, and, through product diversification, it could also lead to improvements in the TofT. Furthermore, the duty-free and quota-free preferences offered by the BRIC to LDCs, accompanied by production, technological, human and institutional capacity building programmes can bring important trade and welfare benefits.

Seventy-three per cent of the total value of LDC exports to developing countries was granted duty-free status, which resulted mostly from the favorable treatment of their exports of fuel and minerals. While the average tariff faced by LDCs in developing countries was 12% in 2006, agricultural exports were subject to far higher rates than non-agricultural goods[59]. These figures illustrate the wide dispersion of product treatment affecting South-South trade. This leaves much room for improving LDCs' market access in developing countries.

African LDCs should also exploit the opportunity of increasing trade with other African countries. With population and urbanization growth rates which are among the fastest in the world, the African market provides a potential for trade increases and export diversification. This is especially true for Southern Africa which should strive to enhance competitiveness by benchmarking its production systems to those of South Africa.

Box 3 : South-South Cooperation

[58] UNCTAD (2010)
[59] WTO (2010)

During the past three decades, the importance of South-South trade has increased at a very rapid pace, accounting by 2007 for 15% of world trade in goods and services. This increase in trade has been largely driven by the rise of China and India as key trade and economic partners of other developing countries.

The depth and distribution of South-South trade has been very uneven across developing regions, with manufactured exchanges between small Asian countries dominating South-South exports. Although Africa's share in South-South trade is less than 5%, its intra-South-South trade in fuels and other primary commodities has increased faster than for any other region during the past decade or so, playing an important role in dynamizing South-South trade.

The rise of South-South trade provides the LDCs with the opportunity to achieve poverty reducing, welfare and growth-enhancing structural change through the full use of underutilized factors and resources, productivity increases, technological upgrading, new investment flows, new and/or better export possibilities, diversification of trading partners, among others. South-South trade could also offer LDCs with the opportunity to diversify away from primary commodities into dynamic product niches, or, generally, into higher value-added products, including manufactures, through the more connected and more sophisticated trade with Southern partners than with Northern ones. It could also help reducing risks, filling the gap left by the limitations in policy space by North-South agreements, and improving the terms of trade. The BRICS have made commitments to increase the market access to LDCs' products within the next 5 years. Key to South-South cooperation are the linkages in goods, capital, people and ideas, which increasingly connect emerging and poor countries.

All that glitters is not gold. Enhanced South-South cooperation may also bring new challenges to the LDCs, to include trade diversion, due to weak economic diversification, particularly among commodity exporters, and relocation of domestic firms towards more competitive locations. The key policy issue for most LDCs remains how to build on the strength of its endowments and develop backward and forward linkages to extract more value from processing, and to better participate in modern global production-sharing networks based on the abundance of unskilled labour.

Finally, South-South cooperation should not be seen as a stand-alone engine of growth, but part of a broader set of interdependent challenges involving investment, structural changes and technological upgrading.

Source:

Klinger, B. (2009) Is South-South Trade a Testing Ground for Structural Transformation? UNCTAD Policy Issues in International Trade and Commodities Study Series No. 40.

UNCTAD (2009) Making South-South trade an engine for inclusive growth. UNCTAD Policy Briefs No. 8.

Extent of trade liberalization

Differently from the historical experience of any developed countries, the LDCs have gone through multilateral (for the 32 LDCs that are currently WTO members) and a unilateral

process of deep trade liberalization during the 1980s and 1990s, which has left them as open as the main developed countries and more open the other developing countries. The commodity exporting LDCs have liberalized more than the manufactures- and services-exporting LDCs.[60]

According to historical standards, the LDCs have opened up their economies very fast, putting their incipient industrial sector to a strain as, often, it was not sufficiently developed to withstand foreign competition. This has probably contributed to the current export specialization in (i) products subject to diminishing returns and (ii) a narrow range of products.

New rounds of trade liberalization are currently taking place through North-South agreements (eg. Economic Partnership Agreements) and the deepening of regional agreements, especially in Africa. This new opening up is likely to put Government budgets, and the related activities funded through public funds, to a strain as their revenues from import taxes are likely to fall accordingly. Governments will need to find new ways to make up for the lower receipts, which may imply new income or corporate taxes or extra reliance on budgetary support coming from foreign aid.

Against this background, it becomes critical for the LDCs to undergo a structural progress, which will enable the domestic firms to find niches in the international markets, to link with international supply chains and, finally, to fend themselves off the lower-priced international goods.

Participation in international trading system

Market access conditions for LDCs have improved over the years through provision of trade preferences by both developed and developing (particularly the BRICS[61]) countries. A study[62] has underscored the importance of preferences granted by the European Union, the United States and Japan. In 2004, the utilized preferences represented about $800 million in revenue forgone from the non-collection of duties that would otherwise have been levied on LDC imports. Although rounds of multilateral and regional agreements have led to preference erosion for the LDCs, new forms of partnerships (for example, the Enhanced Integrated Framework and the Aid-for-trade Initiatives) have emerged to attempt to reduce the impact on the poor. The major outstanding issues include duty-free quota free access for all products from all LDCs, simplification of rules of origin, dealing with non tariff measures and standards, waiver for granting preference in services and first tracking of LDC accession process. The BRICS are making remarkable progress in opening up their domestic markets to LDCs' products. This should be encouraged further.

The number of South-South regional agreements has drastically increased in the last decade. LDCs are increasingly realizing the advantages of regional cooperation and integration as a

[60] UNCTAD (2004)
[61] Brazil, Russia, India, China and South Africa
[62] UNCTAD (2007)

strategy to achieve economic growth and collectively to play a more important role in the global economy. Regional cooperation agreements can provide the platform for pooling resources and capacities needed for structural progress and for alleviating poverty. Between 1990 and 2003, 70 new South-South trade agreements were signed, 30 of which between neighboring African countries[63]. While Asian regionalism has focused on trade facilitation, regional agreements within African LDCs have mostly lowered trade protection measures among members[64]. The Economic Partnership Agreement (EPA) between the main African regional arrangements[65] and the EU, if implemented, will further liberalize EU-African trade. Differently from the past, to make the EPA WTO-compatible, trade restrictions between the EU-African trade will be lifted on a reciprocal basis. The benefits to the African LDCs occurring from this Agreement are yet to fully show that will outweigh the immediate and future costs arising from dislocation in production, high competition, reduction in tariff earnings, among others.

The completion of the Doha round is expected to bring economic benefits to the LDCs, which are more likely to materialize if developed countries opened up their markets further and if they provided 100% duty-free-quota-free market access for LDCs. In the case of agriculture, a sufficient trade liberalization among OECD countries could provide agriculture-exporting LDCs with (i) the possibility to enhance their performance through increased market share and export diversification into higher value added products, (ii) policy space, (iii) and aid-for-trade package that, on top of compensating for the trade distorting effects arising the extra liberalization, could help reducing some of the inherent structural and production weaknesses. The current standstill in the Doha round negotiations process leaves, however, open questions with respect to the benefits that such a developmental round will bring to the LDCs and to the future cooperation initiatives that address cross-border spillovers (eg. Climate change, public procurement, subsidies, investment incentives).

Experience suggests that improved market access alone had not been sufficient to stimulate domestic productive capacity in a way that could lead to structural change in the LDCs. Along with the rebalancing of the role of external and domestic demands, specific supply-side policies are needed to reduce domestic constraints and enhancing existing production possibilities.

Lessons learnt

The following lessons can be drawn from the trade experience of the LDCs during the past decade.

First, the LDCs have experienced an absolute improvement in the level and volume of their trade (both imports and exports). Trade has been acquiring a higher share of their GDP throughout the period analyzed. Such an increase was due to (i) the extent of trade liberalization at the multilateral, regional and bilateral level already undertaken, (ii) existing

[63] Yang & Gupta (2005)
[64] Borgatti (forthcoming)
[65] The Economic Community of West African States, La Communauté éeconomique et monetaire de l'Afrique centrale, The Southern African Development Community and the East African Community.

international trade preferences to the benefit of LDCs' exports, in spite of their limitations and constraints; and (iii) international needs of raw materials for the production processes. The buoyant trade increase was not driven by productivity increases derived from the adoption and adaptation of new technologies that would have enhanced domestic productive capacities. This has restricted the LDCs' capacity to meet the international product quality standards.

Second, trade liberalization, without adequate trade supportive capacity-building measures and policies, leads to a type of export specialization and production that is not keen on value addition or technological improvements. This process has limited the diversification process intra-industry, by constraining the process of value addition in existing sectors, and inter-industry, by restricting the LDCs' capacity to transform primary goods into processed or semi-processed ones.

Third, trade increases and export diversification did not go *pari passu*: the increase in trade was accompanied with export concentration into primary resources, mostly extractive goods. But even those LDCs that have managed to diversify their exports into manufactured goods have a value retention for their exports that is very low due to high reliance on imported inputs.

Fourth, the decade has shown a remarkable change in the market access from southern countries in favor of LDCs. Such a trade increase is occurring primarily in primary products, mostly fuels and minerals and it is lagging in manufactured goods. The developed countries keep on being the main destination of the manufactured goods originating from LDCs. South-South trade has yet to show its potential to be a stimulus for structural change.

Lastly, the recent crises have put the entire system under limelight by showing that stronger efforts and international resources should be devoted to improve trade-related domestic productive capacities and to facilitate structural progress in the LDCs.

V. The State of Commodity Dependence

The LDCs have experienced an increase in their export concentration on just a few commodities or even on a single commodity. This specialization appears to be the result of past policies and existing internal and external constraints that have not been adequately addressed in the past. The preponderance of fuel in the export increases of LDCs stresses the inability of the LDCs to diversify their exports and the highly skewed gains originating from the commodity booming years. Over time, LDCs' imports have not diversified either: the high share of food in the LDCs' total imports has contributed to making the effects of the recent food crisis long lasting.

Increased commodity dependence

The latest available data indicate that LDCs, as a group, became increasingly commodity dependent from 2000–2008, with primary commodities rising in relative importance over manufactured exports. This outcome was largely the result of the rise in primary commodity prices during this period and the increase in their export volumes due to rising international demand (see section IV).

The dependence on a few commodities (or even on a single commodity export) has traditionally been a prominent feature of LDCs' commodity export structure. Available evidence points toward a pattern of increased export concentration, with a few commodities accounting for the bulk of export earnings. The Herfindahl-Hirschmann concentration index suggests that trade concentration had increased from 0.33 in 2000 up to 0.54 in 2008. However, this aggregate picture masks significant variations among regions. The overall increase in the degree of export concentration was essentially due to the African LDCs, whose index rose by 0.73 in the period 2000–2008, while the Asian LDCs exhibited a pattern of decreasing export concentration.

Another measure of the level of trade concentration is given by the export share of only the largest export categories. Table 5.1 shows that 14 out of 23 countries increased their dependence on a single export commodity (as a share of total commodity exports) in the latter period. Although driven by price factors, this finding corroborates the view that LDCs as a group have become increasingly commodity-dependent in terms of export earnings, which entails greater exposure to price volatility.

Preferences may offer new possibilities for diversification to the LDCs, away from traditional commodities into higher value products. For example, thanks to the EU preferences under the Lomé Conventions, in fifteen years, LDC sugar exports have increased from $103.2 million in 1995-97 to $252 million in 2006-08 and they are expected to grow further as the EU fully liberalizes that market. Through ad hoc investment and adoption of appropriate technologies aimed at improving processing capacity as well as quality, the low-cost sugar-exporting LDCs could diversify their production into sugar for direct consumption or biofuels.

LDCs, whether diversifying into metals, meats, horticulture, or creating opportunities by analyzing and responding to other new changing patterns of demand, are well placed to react and to use their comparative advantages of costs of production, proximity to the market, and flexible capacity not only to diversify but to respond to change as a catalyst for domestic development. Diversification is a means of not only countering the negative risk effects of single commodity dependency, but to create important economic advantages. Although not an LDC, the case of Mauritius is taken as an example of successful export diversification and economic development driven by the country's flexibility to adapt to new market realities and its trade environment (see Box 4). Equally, it will be important to consider where and how domestic trade facilitation programmes can enhance diversification.

Box 4. Successful export diversification in Mauritius

The economy of Mauritius has been very well- managed, with a 250-fold increase in export earnings and an average GDP growth of about 6 per cent over a period of 30 years up to the late 1990s. By the early 1970s, the country's import substitution programme was replaced by an export processing zone, pivoted on a variety of incentives. These comprised: low import taxes on raw materials and equipment, overseas marketing support, low corporate taxes and generous tax holidays, as well as preferential loan schemes, for both domestic and foreign investors. The former took the lead in clothing sector, but foreign firms appeared to have been critical, as sources of advanced production and by their use of new marketing techniques. On the hand, the tourism sector relied more on domestic firms as restrictions were imposed on foreign ownership.

The main ingredient of the success story of Mauritius was, first, its successful management of sizeable economic rents; and, second the country's ability to invest these rents in the productive sectors of the economy and create jobs, in the early 1970s when its sugar exports (at the time of rising prises) enjoyed privileged access to European markets (later codified under the Lomé Convention).. Mauritian entrepreneurs invested in clothing exports, which in turn benefited from favourable market access under the Lomé Convention and the Multi-Fibre Arrangement (MFA). The third element of this success story was the formulation of a "diversification strategy" the aim of which was the consolidation and modernization of the country's traditional sectors and the creation of new growth sector. The outcome of this was that a mono-crop economy was able to successfully diversify its economic base and reduce its dependence on its single exports, sugar. In years leading up to the full integration of textiles and garments into the multilateral trade framework in 2005, the Government developed plans to turn the island into an offshore financial services centre, as a means of further diversifying the country's economy.

Source: UNCTAD (2005). *Economic Development in Africa: Rethinking the Role of Foreign Direct Investment.* E.05.II.D.12. Geneva.

Although export diversification is to be considered the best form of economic development as it leads to positive structural changes, other forms of economic development have occurred throughout. The high dependence on oil rent has enabled Equatorial Guinea to move from being a low income to a middle income country over the past decade and the high commodity dependence on diamonds has helped Botswana to graduate out of the LDC category in the early 1990s. Key to commodity-based development is the achievement of a good trade performance through increased market share, higher rents from high priced commodities and gradual diversification into new and higher value-added products using the rents to invest into high-return activities that could enhance capital accumulation.

Notwithstanding the risks involved with international fluctuation of prices, if well manged, commodity rents could be used as an engine of growth and enable the countries to capture opportunities in the global economy, to diversify the domestic economy.

A look at the import side of the economy shows that food imports do account for a high share of total imports (11.3% in 2008, compared to a mere 5% of total import for the other developing countries). LDCs are at least twice as dependent on food imports as other developing countries. This has contributed to making the LDCs more susceptible to changes in food prices and to the negative effects of the recent food crisis than other developing countries (see Section II). As a result, LDCs' food import dependence is likely to have increased.

Internal and external constraints

At the domestic level, horizontal and vertical diversifications towards the production of higher value-added products have been structurally impaired by a number of internal and external constraints.

Internal constraints include deficiencies in infrastructure; the paucity of support services; rudimentary technology; lack of access to credit; and untapped economies of scale. External constraints have been highlighted by a number of factors relating to commodities markets, including exposure to speculative market forces, price volatility, inadequate access to, and slow development of new sources of, external (international) finance, and the need for diversification.

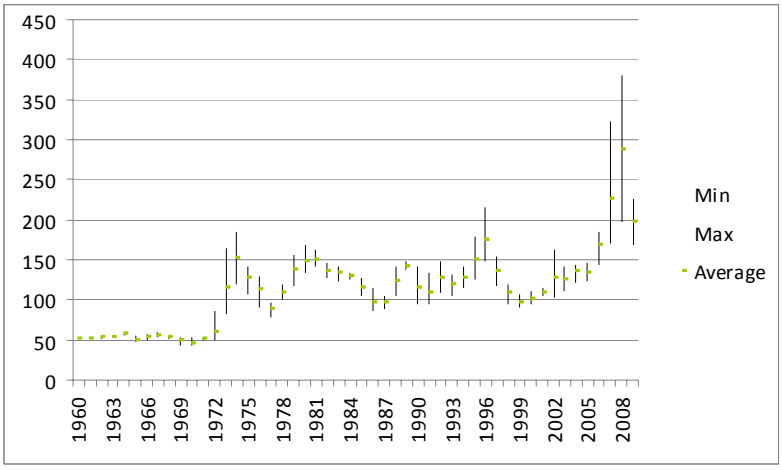
Of particular concern has been an increase in the exposure of LDCs to speculative forces in the global commodities market. The "financialisation" of commodity markets has increased and there has been a growth in hedge fund and investment bank investment in commodities as an alternative asset class[66]. The increase of speculation and the effect of financialisation have been matched by an increase in commodity price volatility, which affects many LDCs profoundly. Figure 5.1 below shows how food (proxied by wheat) price volatility has increased substantially from 2005 onwards, as fundamental traders competed with speculators and investors.

Turning to speculation within oil markets, UNCTAD (2009a) notes that whilst the number of oil contracts traded daily on regulated markets (commodity exchanges) and over-the-counter (off-exchange forward and derivative contracts) can reach up to eleven billion barrels, only eighty-five million barrels[67] is actually physically demanded each day for "real" consumption (i.e for industrial, commercial and domestic uses). So-called "paper trading" volumes dwarf the actual volume of oil actually demanded for consumption.

[66] UNCTAD (2009a).

[67] According to the International Energy Agency (IEA), global oil demand for 2009 is expected to decrease on a yearly basis to 84.9 million barrels per day

Figure 5.1. Monthly averages of free market price indices, 1960–April 2010



Source: UNCTAD commodity price statistics.

Research by the Revenue Watch Institute, which involved detailed assessments of economic data from more than 80 countries, revealed that volatility during the financial crisis had been more extreme in resource rich countries than in other countries. Taken as a group, GDP growth rates for resource-rich countries were projected to plunge 7 percentage points from 2008 to 2009, from a weighted average of about 5% growth in 2008 to -2% in 2009.

An additional external constraint has been reduced access to finance. Before the effect of the 2008 financial crisis was felt, the global commodity trade finance market grew significantly, bringing new financial inflows to commodity-dependent developing countries. However, since the second half of 2008, as the financial crisis took hold, trade finance began to dry up and the cost of loans increased substantially[68]. Fear of default became prevalent among financial institutions and there was a reluctance to lend in the interbank market. During 2008 -2010, trade finance volumes fell to much lower levels than had previously been the case. The effect on the LDC commodities sector has been profound. As a result a number of initiatives have been developed to support commodity trade finance[69] .

In terms of sources of finance, the official bilateral commitments by OECD DAC donors in production sectors stood at $7.6 billion in 2008, a record level over the last decade. However, it should be noted that in real terms, the 2008 bilateral ODA in production sectors and agriculture (including forestry and fishery) was still much lower than its level in the 1980s and the early 1990s.[70] The Food and Agriculture Organization of the United Nations has recently estimated that filling the gap in public investment to help build a more productive

[68] Interest rates on trade credits climbed far above bank refinancing rates with deals offered at more than 300 basis points over interbank refinancing rates in late 2008–early 2009, which was three times or more the previous year's going rate.

[69] For example, a $3 billion IFC Global Trade Finance Programme, supporting local banks' trade finance operations in developing countries and particularly in Africa.[69] In addition, the Asian Development Bank has expanded its Trade Finance Facilitation Programme to $1 billion, a move that could generate up to $15 billion in much-needed trade support by the end of 2013.[69] Also, the African Development Bank has introduced a Trade Finance Programme similar to those of other DFIs.[69]

[70] Data extracted from the OECD online database OECD.Stat on 11 December 2009.

agricultural sector in the developing world would require $40–$50 billion per year. This would amount to an extra 17 per cent of ODA if donors met their 0.7 per cent target.

In 2007, the total new Aid for Trade commitments from bilateral and multilateral donors reached $25.4 billion, a 21 per cent increase in real terms from the 2002–2005 baseline period average. However, in 2007 whilst the overall level of Aid for Trade was rising compared with 2006, the total commitments from bilateral donors decreased by 2 per cent in real terms.[71] The share of low-income countries in total Aid for Trade was still limited, though it grew to 54 per cent in 2006–2007. While the short-term impact of the financial crisis on the commodities sector has been substantial, the long-term aims of Aid for Trade are to diminish commodity supply-side constraints by building infrastructure, supporting diversification and diminishing trade transaction costs. Aid for Trade can therefore contribute to improving resilience against future external shocks**,** in particular if it is "additional" to normal ODA flows.[72]

During the past decade, supply-chain developments in commodity markets have benefited from the development of new sources of South–South financing. Financial institutions and development banks have emerged as new sources of finance for the commodities sector, and the steady increase in Chinese (and to a lesser extent Indian) demand for commodities throughout the last decade has played a big part in the mobilization of South-South financial resources for the commodities production and trade sector. For example, in the metals sector, between 2000 and 2008 China has been a primary driver of prices. During the period, China became the world's largest consumer of metals, and the while being its largest steel producer. Between 2000 and 2008, China's consumption of key metals, such as aluminium, copper, lead nickel, tin, and zinc, grew on average by 16.1 percent per year[73].

Lessons learnt

The issue of dependency on one or just a few commodities allows a number of lessons to be drawn.

First, domestic policies geared to export diversification in the LDCs are unlikely to be effective without complementary action at the multilateral level aimed at tackling both internal and external constraints.

Second, to tackle internal constraints, an integrated programme of responses should be composed of:

(a) Enhanced institutional capacities – in the light of structural problems and in the aftermath of the recent financial and economic crisis, there may be a pressing need for more direct forms of state intervention in economic management (see Box 5 for the Malaysian example);

[71] World Bank (2009)
[72] OECD/WTO (2009)
[73] World Bank (2010)

(b) Pooling and alignment of funding – the two key challenges that LDCs face include aligning aid flows to the priorities expressed in LDCs' national development strategies and strengthening domestic resource mobilization;

(c) Increased effectiveness in the regional economic integration processes, with the objective of overcoming the constraints of small domestic markets and exploiting untapped economies of scale, including in technological development.

Box 5 – "Developmental States" and diversification: the case of Malaysia

Malaysia's success in developing export-led agribusiness is underscored by broad development planning and sector-specific intervention in identifying and assisting promising commodity sectors carry out science-based development and diffusion of products in demand by international markets. Government diversification efforts dating back to the 1960s include (a) identifying commodities with a high economic potential (e.g. palm oil); (b) developing new land for palm oil and cocoa, and infrastructure; (c) establishing support institutions with a view to increasing farm income and food security; (d) provision of support through research and regulatory and marketing institutions; and (e) creating a dedicated development authority for land management, including the enactment of land tenure laws.

Malaysia's competitive position in global agribusiness also owes much to the organized marketing and quality assurance of its exports to meet buyers' requests, as well as to good infrastructure, efficient logistics (modern transport/handling and bulking and shipping facilities) and competitive freight costs. In terms of diversification, its palm oil industry offers a diverse variety of products, by-products and downstream products. Within the palm oil value chain, up to 100 products made up a total export value exceeding $6 billion in 2006. Currently, new high-value crops are being experimented with for similar development, including bio-fuel crops.

Other policy instruments that have been deployed – in particular developing the palm oil sector, revolve around investment incentives and tax measures.

Source: Reproduced from, "Integrating commodity policies into development and poverty reduction strategies: success stories, transparency and accountability" (TD_B_C.I_MEM.2.3.E). A Note by the UNCTAD secretariat its first Multi-year expert meeting on commodities and development, Geneva, 3–5 March 2009, Trade and Development Commission, Trade and Development Board

Third, the LDCs need to create enabling mechanisms for price discovery, via the creation of, inter alia, commodities exchanges and/or the use of technology to disseminate price information. The creation of "spot" and "forward market" exchanges is useful as a tool in allowing price discovery and to add more liquidity in local markets for both buyers and sellers. Such exchanges provide for much better access to information and this is crucial to producers and consumers within LDCs. Furthermore, the development of technology offerings (for example mobile phone price dissemination via text) will be useful in creating a better-informed trading community which offers benefits to producers.

Fourth, the type of diversification that LDCs should aim at attaining matters. Vertical diversification within LDC countries dependent on commodities may be difficult. In particular, vertical diversification requires access to knowledge of market demand and the competitive environment, as well as substantial financial investment. This level of sophistication may not be present within LDCs. Horizontal diversification may be the only option immediately available to many agriculture-dependent LDCs.

Fifth, where diversification is in interplay with an ongoing process of corporate concentration in the commodity sector, asymmetrical market forces may result. This has been the case in the agrifood sector, where private standards have become de facto mandatory requirements, with concomitant exclusionary effects. There is a need to understand these effects and implement policy measures to counterbalance potential exclusion.

Table 5.1: Changes in dependence on a single commodity export between 2000-2002 and 2006-2008

	2006-2008			2000-2002			Increase in share in 2006-2008	
Country	Commodity	Share of		Commodity	Share of			
		Total merchandise exports (1)	Total commodity exports (2)		Total merchandise exports (3)	Total commodity exports (4)	Total merchandise export (1-3)	Total commodity export (2-4)
Angola	333 - Crude petroleum	95.57	96.39	333 - Crude petroleum	89.34	89.62	6.23	6.76
Benin	263 - Cotton	46.08	53.60	263 - Cotton	58.53	62.92	*-12.45*	*-9.32*
Burkina Faso	263 - Cotton	31.62	57.92	263 - Cotton	59.59	72.49	*-27.98*	*-14.58*
Burundi	971 - Gold, non-monetary	38.15	51.57	*071 - Coffee and coffee substitutes*	62.95	63.62	*-24.80*	*-12.05*
Chad	333 - Crude petroleum	61.13	63.79	*263 - Cotton*	74.55	80.65	*-13.41*	*-16.86*
Equatorial Guinea	333 - Crude petroleum	84.76	88.56	333 - Crude petroleum	86.17	89.17	*-1.42*	*-0.61*
Guinea	285 - Aluminium ores	60.11	70.16	285 - Aluminium ores	51.51	66.29	8.61	3.87
Guinea-Bissau	057 - Fruits and nuts	98.43	98.90	*333 - Crude petroleum*	60.67	61.57	37.76	37.32
Liberia	231 - Natural rubber	21.01	55.48	*247 - Wood in the rough or roughly squared*	10.23	45.04	10.78	10.44
Malawi	121 - Tobacco, unmanufactured	59.07	66.81	121 - Tobacco, unmanufactured	59.67	67.12	*-0.59*	-0.31
Mali	971 - Gold, non-monetary	74.74	77.81	971 - Gold, non-monetary	65.52	69.32	9.22	8.48
Mauritania	281 - Iron ore	52.14	53.86	281 - Iron ore	55.53	70.91	*-3.38*	*-17.05*
Mozambique	684 - Aluminium, refined	58.81	64.51	684 - Aluminium, refined	38.53	42.78	20.28	21.73
Niger	286 - Uranium or thorium ores	50.15	57.44	286 - Uranium or thorium ores	35.27	40.53	14.88	16.91
Sudan	334 - Petroleum oils	88.92	90.32	334 - Petroleum oils	63.75	70.36	25.17	19.96
Zambia	682 - Copper, refined	68.14	76.76	682 - Copper, refined	51.75	61.05	16.40	15.71
Lao People's dem. Rep.	682 - Copper, refined	38.16	50.78	*248 - Wood simply worked*	21.34	45.92	16.82	4.87
Myanmar	343 - Crude natural gas	45.37	51.13	343 - Natural gas	17.95	27.31	27.43	23.82
Yemen	333 - Crude petroleum	80.40	83.91	333 - Crude petroleum	92.15	92.86	*-11.75*	*-8.94*
Comoros	075 - Spices	63.95	99.97	075 - Spices	93.73	99.84	*-29.78*	0.14
Maldives	034 - Fish, fresh, chilled or frozen	78.42	78.55	034 - Fish, fresh, chilled or frozen	24.99	42.76	53.42	35.80
Sao Tome and Principe	072 - Cocoa	62.40	66.65	072 - Cocoa	88.75	91.28	*-26.35*	*-24.63*
Solomon Islands	247 - Wood in the rough or roughly squared	66.73	70.06	247 - Wood in the rough or roughly squared	52.88	65.81	13.85	4.25

Source: UNCTAD Globstat.

Note: Data based on 3-digit SITC rev. 3.

VI. Investment Promotion and FDI Flow

The active policies followed by the LDC Governments to attract FDIs have paid back only partially. FDI flows to LDCs have increased, but they have created enclaves of export-oriented primary production, with limited employment, technological and productivity linkages with the domestic economy and little reinvested earnings. Policies that aim at attracting FDIs are not the same as those required to build a dynamic investment climate. There is a need to revisit the role of domestic investment.

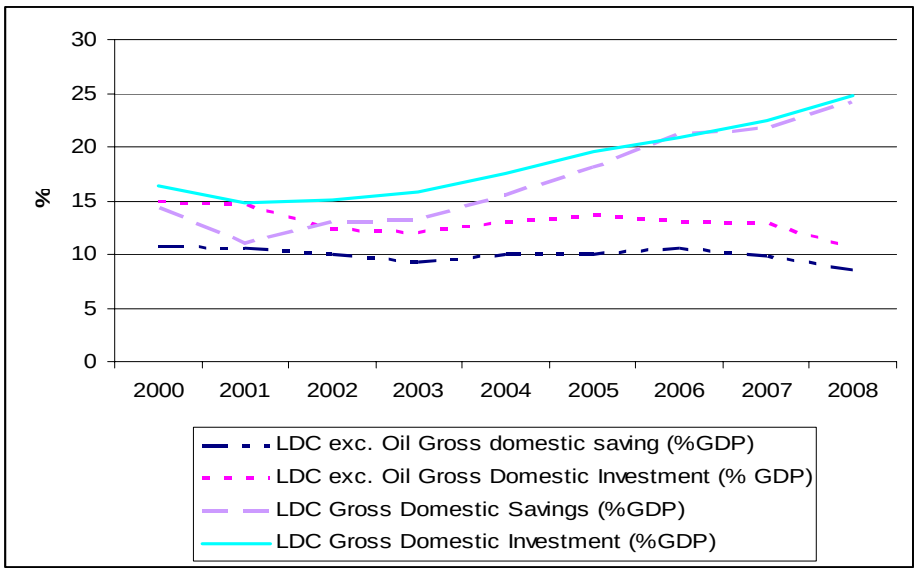
Aggregate Investment Trend

Between 2000 and 2008, the LDCs as a group have experienced a substantial increase in their gross domestic investment (from 16.4% of GDP to 24.8% of GDP) along with improved gross domestic savings (from 14.3% of GDP to 24.2% of GDP), although their gross fixed capital formation as share of GDP increased by 4 percentage points, equivalent to half the increase in gross domestic investment. Investment is not only key for sustained and sustainable GDP growth, but if the right investment conditions are in place, it can lead to an export expansion, thus reinforcing the growth prospects through an 'investment-export nexus'. Domestic investment and exports combine to provide a demand stimulus to the economy. It is worth noticing that whenever the export-investment nexus has worked, the domestic investment has experienced an upward-sloping trend. In the case of LDCs, it seems however that such a nexus has only worked for oil-exporting countries (see Figure 6.1). For the remaining LDCs, it seems that their structural constraints linked to deficient infrastructure, little return for the investment, problems accessing credit, detrimental impact of rising commodity prices on consumers' budget, among others.

During the 2000s, the LDCs as a group drastically reduced their resource gap - which measures their dependence on foreign savings - from 7% of GDP in 2000-2002 to 1.6% in 2006. At the same time, however, some of the most vulnerable LDCs increased their reliance on foreign savings to finance domestic investment and domestic consumption, highlighted by an increase in their resource gap. This raises questions over the future sustainability of the non-oil and mineral-exporting LDCs' growth performance as well as over the effective impact of domestic investment and savings for the natural-resource dependent LDCs.

Figure 6.1: Domestic Investment and Savings in LDCs and non-oil exporting LDCs

(% GDP)



Source: World Bank, World Development Indicators, 2010, online (downloaded in April 2010)

The fastest-growing LDCs are those experiencing the fastest growth in investment (domestic and international) and exports[74]. Reinforcing the accumulation of domestic capital is therefore vital for the catch-up process of the LDCs. To do so, they will have to deal with the constraints that are currently impeding the full accumulation of capital (see Box 3). The underdeveloped financial system, lengthy loan application process and high costs make the financial system of LDCs non-competitive. In the absence of substitute informal domestic credit sources, many firms are constrained in their ability to invest in new equipment. Retained earnings or the entrepreneurs' own savings remain too often the only solution to finance domestic investment.[75] Another key challenge is the creation of an enabling environment for investors (domestic and international) in the areas of contract enforcement, banking, property rights (including intellectual property rights), dispute regulation, among others.

Box 3: Constraints on Domestic Capital Accumulation

The prevailing thinking shaping economic advice extended to developing countries in general and LDCs in particular is based on the assumption that investment is financed from a savings pool filled up mainly by private household savings. In this view, entrepreneurial investment is mainly encouraged by policies aimed at increasing household savings rates and capital imports, as well as improving the efficiency of financial intermediation by developing a competitive financial system and creating securities markets. This approach, although widely shared in the development community, has to be taken with a considerable dose of caution. The assumptions of this model are heroic and in many respects far from reality. Its predictions have been repeatedly refuted by empirical evidence. For example, many developing countries, particularly in Latin America, failed to achieve higher productive investment despite monetary and financial policies that attracted waves of capital inflows. On

[74] UNCTAD (2006)
[75] Wangwe & Rweyemamu (2002)

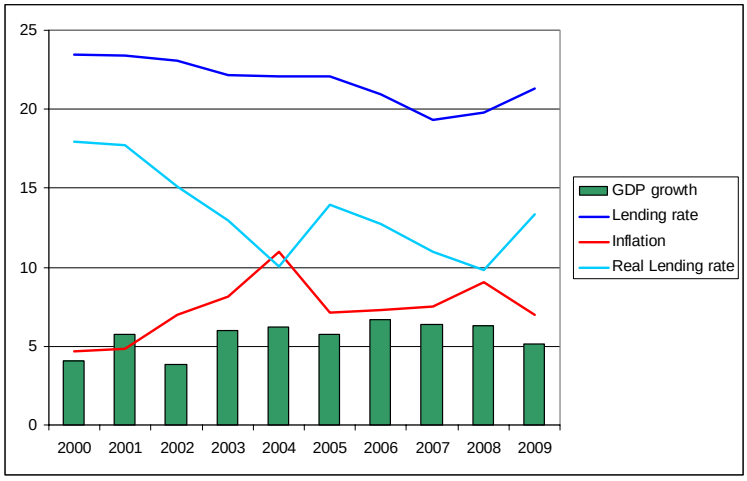
the other hand, Asia is the most important global investor with an unprecedented catching-up performance and is able to export capital.

A view that better reflects the complexity and imperfections of the real world emphasises that strong enterprise profits simultaneously increase the incentive of firms to invest and their capacity to finance new investments from retained earnings. Thus, a fall in the savings ratio does not lead to a fall in investment; on the contrary, since it implies an increase in consumer demand, it will increase profits and stimulate investment. By the same token, an improvement of the current account as a result of changes in relative prices in favour of domestic producers does not represent a reduction in the inflows of foreign savings that causes a fall in investment; on the contrary, it is equivalent to an increase in aggregate demand and in the profits of domestic producers, and tends to lead to higher investment. Therefore, a fall in consumption or a fall of exports is not at all a prerequisite for higher investment. Rather, the causality works in the opposite direction: changes in the current account towards lower deficits or higher surpluses lead to growing investment in fixed capital.

The consequences of the latter approach for economic policy are substantial. When investment, output growth and employment are determined largely by profits of enterprises, economic policies have an important role to play in absorbing shocks and providing a stable environment for investment. By contrast, in the neoclassical model there is little room for economic policy, and where it offers economic policy options, they often point in the opposite direction. Where the neoclassical model sees the need for private households "to put aside more money" or for developing countries to attract more "foreign savings" to raise investment in fixed capital, the alternative model emphasizes positive demand and profit expectations as incentives for domestic entrepreneurs, and the need for reliable and affordable financing for enterprises.

The upshot of the heterodox analysis is straightforward: the decisive factor for catching-up is domestic accumulation of capital, which will normally be the result of simultaneous investment and consumption growth in a process of rising real income for all groups of society. The most important obstacles for the realization of such a process are high interest rates or an overvalued currency. In real terms, interest rates should be close to the real growth rate of the economy or below. But in many developing countries, including in the LDCs, the rates are considerably higher (see box chart 2). Based on available data, the real lending rate for the LDC average in 2009 amounted to some 13.4% against a GDP growth of 5.1%. With real GDP growth in Africa around 5 to 6 per cent, such a level of interest rates is prohibitive for many potential investors in fixed capital, in particular for small businesses and smallholder farming. Under such conditions the banking system very often does not generate sufficient affordable credit for risky fixed investment in machinery and equipment but mainly engages in lending to the government and to less risky real estate activities like residential construction. In a country growing at 5 per cent in real terms the average firm can pay a real interest rates in the order of 10 per cent or even more only with an increased risk of falling bankrupt. If, as is the case in many LDCs, non-competitive banking systems charge such rates mass default and non-deferment is unavoidable.

Box Chart 2: Average real lending and GDP growth for selected LDCs



Source: IMF International Finance Statistics, online.

Note: Data were available for the following LDCs: Bangladesh, Central African Republic, Gambia, Laos People's Democratic Republic, Madagascar, Malawi, Mozambique, Senegal, Sierra Leona, Uganda, United Republic of Tanzania and Zambia.

Such a vicious circle of excessively high interest rates and a high risk of default call for more pro-active financial policies. LDC governments can directly restrict the size of bank spreads through the kind of legislation that is used to stop usury in many developed countries. Moreover, public banks offering reasonable rates for private savers as well as for smaller private companies could directly compete with a non-competitive private banking system on a broad scale.

Monetary instability, periods of hyperinflation and frequent financial crises have often forced many developing countries to adopt economic policies that generate the exact opposite of what would be favourable investment conditions. Conventional macroeconomic practices, combined with financial liberalization, seldom led to the desired result of higher investment and faster growth. On the other hand, the alternative policy approaches helped the newly industrializing economies of East and South-East Asia to accelerate their catch-up process. To be sure, a stable environment conducive to investment in productive capacity must exclude inflationary excesses. Countries that are prone to high and accelerating inflation will find it much more difficult to start and sustain a process of development and catching up than countries with a history of moderate inflation. Appropriate wage and incomes policies can help countries to maintain low inflation so that monetary policy and competitive exchange rates can be used to support an investment-led development process without risking a quick acceleration of inflation.

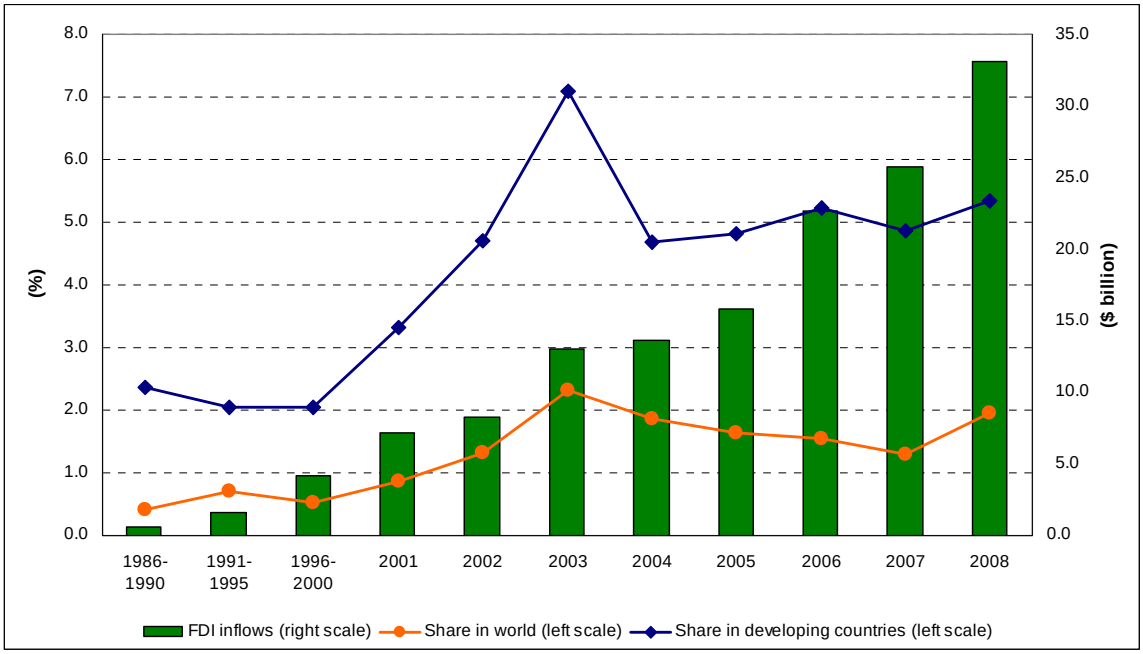
The FDI Inflow

Foreign direct investment (FDI) is considered as an important source of capital formation, know-how, employment generation and trade opportunities for the LDCs. Since the 1980s, LDC governments have pursued proactive FDI promotion policies, which have led to an increase in FDI flows to LDCs. FDI flows to LDCs grew at an annual rate of 25 % to reach $33 billion by 2008, compared with $7.1 billion in 2001. Although the FDI flows into LDCs

followed an upward sloping trend in the 2000s, they account for a meager 2% of world total in 2008. Figure 6.2 shows that the initial strong growth of the first half of the 2000s was followed by a relative stagnation in the second half, which is also likely to persist in the near future, due to the effects of the crisis.

Figure 6.2: FDI inflows into the LDCs and their share in world inflows and developing country-inflows

(Billions of dollars and per cent)



Source: UNCTAD, FDI/TNC database.

The particular combination of geographical, historical and structural forces in LDCs, and African LDCs in particular, has traditionally attracted FDIs into enclaves of export-oriented primary production, with limited employment, technological and productivity linkages with the domestic economy and little reinvested earnings. Such FDIs tend to be more volatile than those to the manufacturing sector, given the close relationship between profits and fluctuating world prices. Moreover, FDI in the LDCs continued to remain concentrated in a handful of countries (seven LDCs[76] accounted for more than half of total FDI inflows to LDCs in 2008) and a few extractive sectors. Concurrently, FDI mainly targeted extraction industries and the growth of investment in oil exporting countries in Africa during 2000s accounting for more than 60% of total inflow. In 2008, the bulk of FDI was in the form of greenfield and expansion projects prospecting for reserves of base metals and oil, in addition to some investments in infrastructure. Large services FDI projects were mainly through mergers and acquisitions.

[76] In decreasing order of importance: Angola, Sudan, Equatorial Guinea, Zambia, United Republic of Tanzania, Myanmar and Chad.

Investment in the manufacturing sector in Africa has been low, due to a lack of political stability, lack of skilled workers, and relatively low return. The domestic business environment in Africa has not been considered favourable for large scale investment in the manufacturing sector. Trade liberalization in major markets has eroded the preferential market access of LDCs and it has reinforced the tendency to import outmoded plants and equipment, and to have low investment levels, and poor training.[77]

Among the components of investment, reinvested earnings comprise a major share of FDI inflows in the case of natural-resource exporting countries, because of long-term commitments and relatively large profits in mining and extraction.

However, some of the sectors such as food, beverages and tobacco have been targeted as important sectors by foreign investors and TNC investments improved during the 2000s. Moreover, high investment has been seen in some service sectors (transport, storage, communications, hotel and restaurants), which are often labour-intensive industries.

Although developed countries have been the main source of FDI for LDCs during the 2000s, LDCs are also attracting FDI increasingly from developing countries such as China, Malaysia, India, South Africa as well as from the Russian Federation. While the biggest Chinese investors are state-owned enterprises, Chinese private investors also have become increasingly active players in Africa. Chinese outward FDI flows to LDCs have increased from $43 million in 2003 to $930 million in 2008 (equivalent to some 3% of total FDI inflows to LDCs).

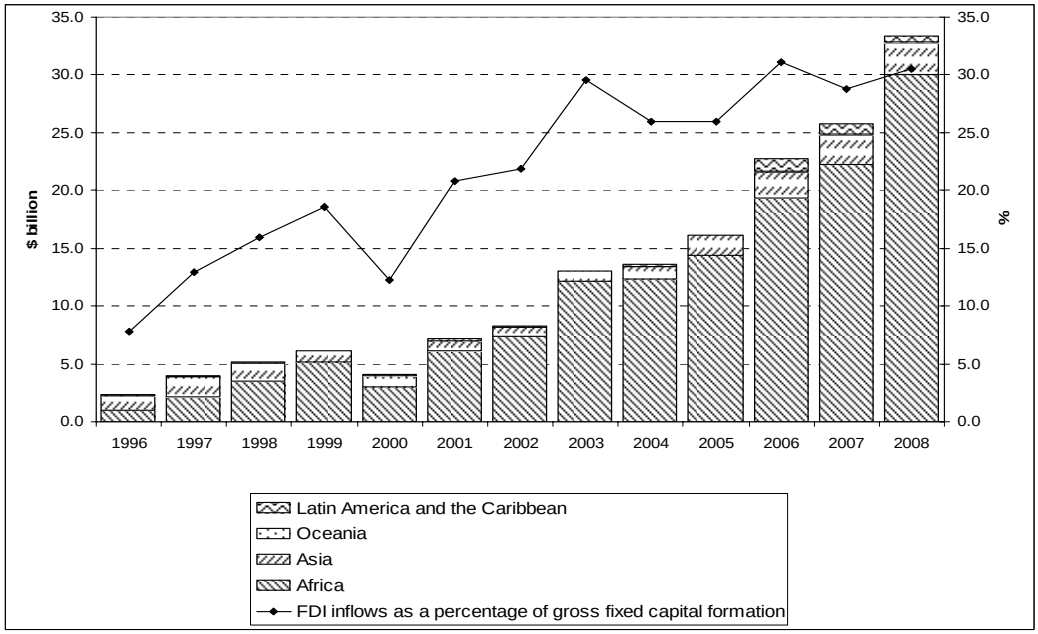
In addition, regional investments within Africa have also been recently on the rise in sectors as telecom, tourism, finance, infrastructure, mining, oil and gas and agriculture and they constitute another important source of investment for LDCs.

FDI and domestic investment in LDCs

Since domestic investment levels are low in LDCs, FDI could contribute to the capital stock, and introduce new technology and management know-how, benefiting their long-term development objectives. Although the share of FDI flows in gross fixed capital formation increased in the last 15 years to reach some 30%, up from some 12% in 2000 (Figure 6.3) , profit remittances on FDI have soared reaching a capital outflow of $12.2 billion by 2006 The overall net effect on the domestic economy is thus unpredictable and likely to be country-based.

Figure 6.3: FDI inflows to LDCs, in value and as a percentage of gross fixed capital formation

[77] Phelps, et al. (2008)



Source: UNCTAD, FDI/TNC database

It is conventionally assumed that foreign affiliates can contribute to the growth of domestic firms and investment (crowding in) through vertical inter-firm linkages with such firms or through the creation of sub-national or sub-regional clusters of inter-related activities. But, existing evidence[78]on crowding in is not conclusive and generally for it to occur, a high share of domestic capital formation is needed to offset possible crowd-out effects. UNCTAD (1999) research finds that FDI is crowding-in domestic investment, i.e. a dollar of FDI leads to an increase of investment by more than one dollar in the most of LDCs countries. However there are differences in terms of the impact in LDCs in Africa and Asia. While neutral effects seem to prevail in Africa, crowding-in effect dominates in manufacture-exporting Asian LDCs.

Differences in the effects of FDI on domestic investment between those two groups of economies imply that national development strategies and investment policies such as policies strengthening linkages between foreign affiliates and domestic firms should be coordinated to ensure the maximizing of synergies between FDI and domestic investment.

Future Outlook

FDI flows to LDCs are likely to decline in the future because of the lower expectation of profitability by TNCs during the recovery from the global financial crisis and continued volatility in the global demand and prices of oil and minerals. In this context, the decline in FDI inflows to LDCs in 2009 is a matter of grave concern.

Although most LDCs have been making efforts to improve the investment environment over the years, they did not seem to have managed to attract FDI towards productive sectors. Some oil-producing countries in Africa are seeking to ameliorate their policies to increase the linkages with the domestic economy and therefore better benefit from FDI in the oil industry.

[78] Udomkerdmongkol & Morrisey, (2008)

Even though many LDCs have paid increased attentions to policy initiatives at bilateral, regional and multilateral levels in order to enhance their investment absorption through their international integration measures, there is a clear need to revisit the role of domestic investment. Public investment, in particular, should be undertaken to close the infrastructure gap and growth in private investment to foster capital accumulation.

Lessons learnt

The following lessons can be drawn from the experience of the LDCs during the past decade.

First, the usual consensus has led most LDCs to undertake a no-discrimination policy with respect to domestic sectors. Such a level playing field across sectors came as a byproduct of the trade liberalization, deregulation and market-first policies that many LDCs have undertaken. Although recognizing the important role that markets are called on pursuing, such a level playing field across sectors has shown its limits. Sector-specific support and incentives are needed to guide investors towards those sectors (manufacture, processing and trade-supporting services) that most led to structural transformation. This calls for targeted trade-policy support measures, and fiscal and monetary incentives towards the most productive sectors as well as the strengthening of linkages between and across sectors.

Second, past policies have directed domestic production towards foreign markets, relegating domestic demand to a second level. If the right investment conditions are in place, domestic investment can boost domestic demand, which represents an engine for growth as well as leading to an export expansion, thus reinforcing the economic growth prospects through an 'investment-export nexus'. To minimize the adverse effects of crowding out of investment, there is a need to create opportunities, including affordable financing, for domestic investors to enable them to compete effectively with foreign investors for the best investment opportunities. Suitable labour-market policies should also be duly integrated with the domestic investment and industrial policies in order to ensure that a pro-poor employment-enhancing structural change takes place.

Third, LDCs need to strengthen their domestic financial institutions for the role they play in supporting domestic and foreign investors. realize the full potential of increased and better investment flows to LDCs, more efforts are required by the countries and by the international community. Regulatory reforms have made LDCs more attractive to FDI. Although the current regulatory conditions established in many LDCs are on par with those in other developing countries, there is still scope for improvement. Some of the larger LDCs and those that are joining regional trade agreements also offer opportunities to receive the type of investment in manufacturing that would reinforce the virtuous cycle between growth, investment and employment creation. Furthermore, it is essential that the LDCs strengthen the linkages between their export sectors and the rest of the economy by building and fostering domestic capabilities in physical infrastructure, production capacity and institutions supportive of private investment.

Depending on the circumstances typical of individual economies, LDCs' Government will need to choose the best dynamic combination of the incentives mechanisms for the above three elements, namely sectors, markets and investors.

VII. Building Capacities for Structural Progress: Transport Infrastructure, Science Technology and Innovation (STI) and Information and Communication Technologies (ICT)

The LDCs have improved their connectivity, the spread of mobile telephony and have managed to attract increasing shares of private sector investment in transport-enhancing infrastructure. The average infrastructure level of the LDCs remains far below that of other developing countries, especially in power availability. Successful catching-up policies require the LDCs to close the technological and infrastructural gap with other developing countries. Thus far such strategies have only had limited results. Many LDCs still lack the necessary capacity to take advantage of ICTs and of STI.

Investment in Connectivity, Transport Infrastructure, and Electricity

Connectivity. Most international trade in manufactured goods is transported by containerized liner shipping services. These liner services form a global maritime transport network, through which all coastal countries are connected to each other. Most LDCs are among the least connected countries. The average ranking of LDCs in 2009 was 109, compared to an average ranking of 76 for other developing countries and 68 for developed countries. Container shipping companies are less likely to provide services to and from sea-ports of LDCs because i) national trade volumes tend to be lower, and ii) a lower level of development will often make ports less attractive for transshipment and transit cargo. Weak infrastructural provisions, particularly trade-related ones have been considered to be one of the main obstacles towards structural progress in the LDCs, particularly in the land-locked ones.

Several LDCs have, however, been able to improve their connectivity during the last 5 years. Starting from a low base, and catching up with port infrastructure investment and the introduction of private sector operations, seaports in several LDCs have managed to become more attractive as ports of call for international liner shipping companies. During the 1990s, LDCs received $65m of investment into seaports, representing some 2.8 per cent of the global port investment as recorded by the World Bank. During the 2000s this figure increased more than 27 fold to reach $1.8bn, representing around 5.4 per cent of the total global investment into seaports.

On average, the largest container ships that call in LDCs seaports are less than half as big as those providing services to other developing countries. This is as much a reflection of the lower traded volumes as it is a consequence of less developed sea-port infrastructure. Larger container ships require more dredging and specialized cranes which are less likely to be found in the ports of LDCs. The average number of container shipping companies providing services to and from the ports of LDCs is only one third of the global average. This means that importers and exporters from LDCs have fewer choices when contracting containerized maritime transport. Empirically, the lower level of competition is closely correlated with higher freight rates, i.e. LDCs will also be confronted with a higher transaction costs for their foreign trade. The global average per country of direct liner shipping service connections remained stable between 2006 and 2009, while it declined by 20 per cent in LDCs.

Table 7.1 reveals that, as per UNCTAD's Liner Shipping Connectivity Index (LSCI), LDCs are among the least connected countries, because national trade volumes tend to be lower and lower levels of development make ports less attractive for transhipment and transit cargo. However, investment in port infrastructure and the introduction of private sector operations made several seaports of LDCs more attractive as ports of call for international liner shipping companies.

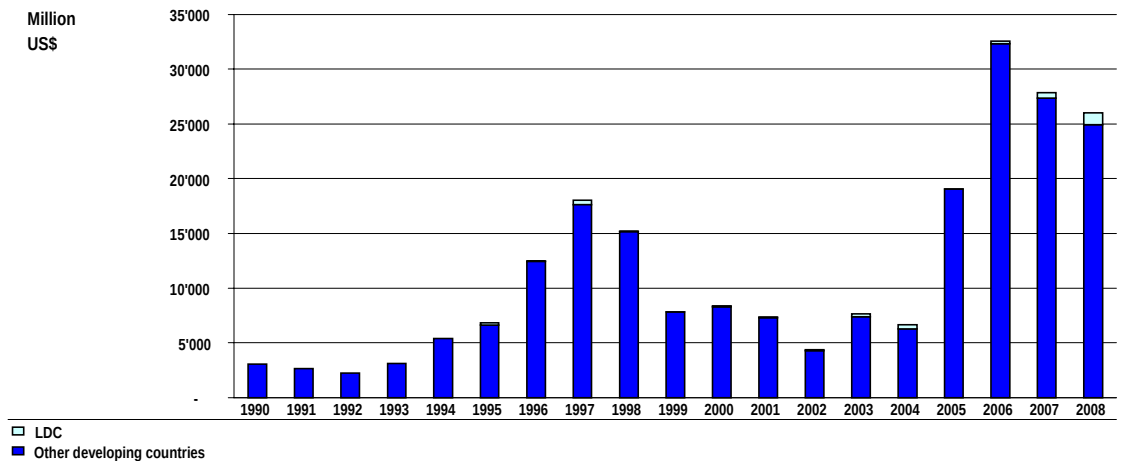
Table 7.1: Average LSCI rankings of country groups, 2009

	Developed countries	Economies in Transition	Developing countries	LDCs	Grand Total
Africa			**70**	**104**	**89**
Asia	**70**	**136**	**60**	**108**	**69**
Europe	**63**	**100**			**68**
Latin America and the Caribbean	**83**		**92**	**124**	**92**
North America	**86**				**86**
Pacific	**79**		**92**	**132**	**103**
Grand Total	**68**	**106**	**76**	**109**	**81.5**

Source: UNCTAD calculations, based on data provided by Containerization International On-line.

Transport Infrastructure. Out of the total $140 billion-worth private sector investment made into airports, seaports, roads and railway infrastructure, from 2000-08 the LDCs have only received a very small proportion. The share of the LDCs in global investment in transport infrastructure between 1990s and 2000s experienced a growth from $0.7 billion (but accounting for a tiny 0.9% of the total World Bank-recorded private investment to the global transport sector) to $2.7 billion (equivalent to some 1.9% of the total) (See Figure 7.1). The number of projects in the LDCs also increased from 12 out of 337 (1990s) to 31 out 441 (2000s). Investments into seaports in the LDCs during 2000s increased more than 27 fold to reach $1.8 billion (5.4 per cent of total).

Figure 7.1: Project investment in transport infrastructure, 1990 - 2008, US$



(Source: UNCTAD secretariat, based on data from World Bank and PPIAF, PPI Project Database, http://ppi.worldbank.org,)

Electricity. Power availability is an important pre-condition for development. In the early 2000s, 74% of total energy requirements were met by traditional sources (charcoal and firewood) rather than coal, oil, gas and electricity, as compared with 23% in other developing countries. Accessing modern forms of energy is more difficult in rural areas, where electricity transmissions mechanisms are either inexistent or old. Furthermore, the LDCs are faced with high dispersion rates of the electricity produced. In the period 1999-2001, 20% of total electricity output in the LDCs was lost in transmission and distribution, compared with 13% in low and middle income countries. Large differences exist within the LDC group: only 14% of the population in African LDCs had access to electricity in 2002, against 21% in Asian LDCs. This low electrification level contributes to maintaining a technological gap with the other developing countries and it makes any catch-up attempt more difficult.

UNCTAD analysis shows that an increase in electricity production is closely correlated with an increase in the manufactures share of merchandise exports. This finding implies that energy infrastructure is as important as transport infrastructure for trade development, employment generation, and economic growth[79].

Science, Technology and Innovation

The building of a sound STI capacity in the LDCs is a pre-requisite for long-term economic growth and poverty reduction. The experience of successful developing countries shows that advances of science and technology have been the primary sources of the marked increases in their productivity and per capita incomes. Applications of science and technology have become

[79] UNCTAD, 2006.

central in facilitating the achievement of most of the millennium development goals, especially in such areas as poverty alleviation, health, education and the environment.

Policy-makers in the LDCs have been increasingly implementing policies and strategies during the 2000s to build STI capacity, based on the conventionally understood technological transfers, with limited results. UNCTAD (2007) argues that to reverse this trend, the focus of those policies should be on proactive technological learning by domestic enterprises and on commercial innovation.

Technology and innovation can contribute to structural change leading to diversification and strengthening of the productive capacities of the LDCs that result in an increased role of higher value-added sectors. But in order for STI to enable and support such processes of structural change, STI policies need to be flexible and adapted to very different levels of development, economic structure, demand for STI goods and services, and human and other resource endowments.This calls for the adoption and the adaptation of already existing technology to the local characteristics.

Analyses based some LDCs show no distinguishable improvement in the STI capacity over the last decade in these countries. For example, according to UNESCO data, expenditure on R&D as a share of GDP has either decreased or slightly increased from a low base, accounting for less than 0.5% of the respective GDP. There are no clearly distinguishable trends, other that R&D expenditures have been at insufficient levels. Furthermore, there has been no improvement during the last decade (1996-2006) in the LDCs in terms of supply of scientific professionals, while there is some stability in the numbers.

As part of its mandate, UNCTAD carries out STI policy reviews with the aim at strengthening country-level STI development mechanisms underpinning structural change and poverty alleviation policies, including within the framework of the Millennium Development Goals (See Box 6 for the outcome of the STI policy review of Lesotho). The general policy advice coming out of the review process is that LDCs needed to strengthen their innovation capabilities through developing absorptive capacity and infrastructure for technology transfer, with a special focus on using ICTs, both as a production technology as well as a knowledge conduit and enabler.

Box 6: STI Policy Review of Lesotho

The STIP review of Lesotho was conducted at the request of its government in order to strengthen the implementation of its National Science and Technology Policy 2006-2011 (NSTP). The goal of this policy was to "…empower ourselves with the relevant skills, knowledge, competencies, know-how and attitudes" required to meet Lesotho's development objectives."[80] The request was received in May 2008 and the review was completed with a national multistakeholder workshop in July 2009.

The STIP review affirmed that the private sector, of which much in the form of investment by firms from abroad, is the primary driver of economic growth and, therefore, the primary STI stakeholder. While Lesotho had successfully attracted a significant amount of foreign direct investment (FDI), in order to sustain FDI inflows, it was crucial to accelerate the process of skills

[80] Minister of Communication, Science and Technology, as cited in the Lesotho STIP Review (UNCTAD 2010).

transfer and technology acquisition. The review found that strengthening collaboration, coordination and coherence with the national development strategy was the key to enhancing the effectiveness of the NSTP. To diversify the economy and effect structural change, industries and sectors needed to be prioritized for investment aimed at achieving STI-driven productivity gains.

To address these challenges, the STIP review designed a mechanism that would proactively coordinate cross-sector linkages, priority setting, and fund allocation. It would facilitate technology flow, ensure human resource development, engage institutions' active contribution, promote networking and collaboration, and build up the national knowledge base. At the institutional level, such mechanism would reinforce the capacity of the Ministry of Communications, Science and Technology of Lesotho to deliver a broader range of STI information and services in an effective and timely manner, while maintaining its role as a promoter and coordinator of science, technology, and innovation. The proposed implementation mechanism would act out of the Ministry's Department of Science and Technology, and would reach out to other institutions, as deemed necessary by the NSTP and with a view to promoting the establishment and development of an effective national innovation system (NIS) in Lesotho. The NSTP needed a complimentary Environment Policy in order to institutionalize the need to protect and preserve flora and fauna, as well as to set up measures for mitigating the impact of climate change. Meteorological science and technology was critical as weather conditions were expected to become more unpredictable and more severe in the coming years, while the relevant institutions needed their mandates broadened to service agriculture, environmental issues and food safety.

In the medium to long term, and as policy experience and capacities accumulate and demand grows for an enhanced contribution of STI policies and processes to national development strategies, the creation of a full-fledged Ministry of Science Technology and Innovation was to be considered. This would sustain the political commitment and focus on STI policy issues and facilitate Lesotho's participation in regional and sub-regional processes of collaboration and knowledge sharing.

To be effective, several industries and sectors needed to be identified as focus areas where Lesotho could a competitive advantage. Lesotho’s textile sector was an excellent example of diversification: it grew to become the largest employer from a zero base and showed the ways in which STI could play a role in this transformation. Food production was a major issue. To enhance STI in the agriculture sector, measures such as diffusion of improved planting materials and innovative practices including post-harvest storage were proposed, in addition to building research capacity for improving indigenous stocks and for biotechnology. In compliment, soil degradation technologies needed to be considered to improve the sustainability of the agricultural sector and safeguard the environment. It was important to facilitate forward and backward linkages in key sectors such as textiles and manufactures, and raise awareness of the need of technological upgrading. Telecommunications and ICTs services were in need of expansion through use of low-cost, wireless mesh networks in under-served areas. ICTs were tremendously important for improving public service in two key areas of importance for the MDG process: education and healthcare, in particular in rural areas.

Funding for the science and technology needed to include research and development. Legislation, infrastructure and institutional arrangements needed revision and strengthening and included building institutional capacities and systems to better monitor STI targets, performance and

impact. Initiatives and projects, whether donor-funded or privately-owned, needed to be brought into the overall development strategy and channeled into the recognized sectors. Educational institutions were advised to plan and synchronies their programmes in order to match real world developments in human capacity and skills demand from local firms. Several advisory services were recommended. One was an STI database that could serve as a platform for facilitating both the coordination of projects and activities, and the collaboration of their managers. Another would be and advisory service for technology acquisition issues that would national firms and institutions and which would promote and foster the cross-fertilization of initiatives and ideas from the different sectors and users.

As education was the driver of the information society, besides measures to improve formal education and technical training, including the integration of sciences and mathematics as core courses, action was needed to raise technology awareness and technical competence to acquire novel technologies. ICTs were needed to develop and document indigenous and traditional knowledge and technologies for scientific validation and eventual public access and/or commercialization. Finally, energy was an indispensable ingredient in all the above cited technological policy action lines and measures were needed to improve and expand its availability through and enhanced and expanded power grid as well as through the use of alternative sources such as biomass, solar and wind.

Source: UNCTAD (forthcoming)

Between 2007 and 2009 UNCTAD conducted Science, Technology and Policy Reviews (STIP) reviews in order to assess ground-level developments in three LDCs: Angola, Lesotho and Mauritania. The STIP reviews reaffirmed the need for policy to be integrated and tailored to national development strategies. The key challenges for improving technology absorption are: lack of resources, limited technology flow in public-private partnerships, inadequate ICT and staffing in key institutions, lack of technical training facilities and brain drain.

Patents represent improved scientific and innovation capacities of a country. However, according to the US Patent and Trademark Office data, during 1989-2008 only 32 out of 3 millions patents originated in the LDCs and during the last five years - no more than 9 out of 1 million.

Information and Communication Technologies (ICTs)

Improved access to ICTs represents one of the most positive developments in the LDCs in the past decade. Improvements have been particularly significant in the case of mobile telephony (see Table 7.2). The rapid spread and take-up of mobile phones across the developing world, including LDCs, has taken most observers by surprise. Between 2000 and 2008, the average number of mobile subscriptions per 100 people in LDCs rose from less than 1 to about 20. In some LDCs, the penetration has reached very high levels, while in others it is dragging.

Table 7.2. Mobile telephone subscriptions per 100 inhabitants in LDCs, 2000 and 2007

(Number of LDCs with a certain penetration level)

Number of subscriptions per 100 inhabitants	2000	2007
Less than 1	41	2
1-10	7	14
10-30		28
More than 30		5
Data not available	1	
Total	49	49

Source: UNCTAD analysis of data from ITU World Telecommunication/ICT Indicators database

The expanding access to mobile phones has created new development opportunities. Advantages of mobile phones include that their use is not fixed to a specific location and that they are becoming increasingly widespread and gradually cheaper to buy and use. They are also less demanding than many other ICTs with respect to literacy and language skills. As mobile phones have presented a way to bridge the connectivity gap without expanding the networks of fixed lines, they are likely to have a greater impact on economic growth in LDCs than in more developed countries, where fixed lines were widely available when mobile phones were introduced.

As information and communication are essential to private sector economic competitiveness, further exploitation of mobile telephony and of other ICT-type of improvements would be beneficial to the domestic structural transformation.

Mobile phones are today used for much more than voice communication. Like other ICTs, mobile phones can affect the internal processes of a business and the way it relates to clients and suppliers[81]. Micro-enterprises in the agriculture and fisheries sectors in Asia and Africa now use mobile phones to obtain weather information, market prices, to sell and purchase inputs as well as to negotiate prices. Most recently, mobile phones have become a tool for making financial transactions, providing insurance and represent a source of income for small vendors in developing countries.

According to the ITU, in 2009, the average price of a mobile cellular monthly price basket amounted to 5.7 per cent of per capita income. In developed economies the ratio was 1.2 per cent and in developing countries it was 7.5 per cent.

In other areas, such as fixed telephony, Internet access and broadband connectivity, the LDCs still remained very far behind other countries in 2008. In fixed telephony, there was less than one fixed line per 100 inhabitants; 24 per thousand LDC inhabitants was an Internet user and

[81] Donner & Escobari (2009).

in broadband connectivity, the world average penetration level was some 200 times higher than in the LDCs[82].

The extent to which improvements in ICT infrastructure and access translate into economic growth and development is greatly affected by the way such technologies are used in the productive sector. Indeed, only when ICTs are effectively applied can there be a significant positive effect on corporate turnover, productivity and, finally, on employment creation.

There is great variation both between and within countries in the extent and nature of ICT use by businesses. Within countries, large enterprises consistently display higher levels of use than SMEs, and companies in urban areas mostly show greater use than those in rural areas. The degree of ICT use also varies considerably across industries.

The rural/urban divide in ICT access persists; less than one per cent of rural households in some LDCs have access to such ICTs. Even when ICT infrastructure is available, its use is often constrained due to inadequate supportive infrastructure, notably electricity. An improvement in the use of ICTs by businesses in rural areas can lead them to expand their markets and reduce costs, thereby increasing revenue and contributing to poverty alleviation.

There are various ways in which developing country governments, with support from development partners, can promote greater productive use of ICTs. Special attention should be given to small and micro enterprises, as they are lagging the most in terms of ICT uptake. In addition, SMEs typically represent the backbone of LDCs and employ a large majority of the workforce. Despite recent progress in infrastructure and connectivity, low levels of ICT literacy, slow connection speed, a lack of local content and high costs of use still prevent entrepreneurs and small firms from using ICTs efficiently. Moreover, in rural areas of many LDCs – despite positive trends with regard to mobile phone use – even basic connectivity can still be a challenge. There are several pressing needs to address that range from raising awareness of ICT to adopting a suitable legal framework that would release the full potential of ICT.

Lessons learnt

The following lessons can be drawn from the experience of the LDCs during the past decade. First, although the LDCs have managed to improve some their trade-related infrastructure, notably in their port infrastructure and in mobile telephony, the LDCs still remain well behind other developing countries with respect to the other trade-related infrastructure. Weak infrastructural provisions are one of the main obstacles towards structural progress in the LDCs.

Second, donors devote only marginal financing to sustain infrastructure- and science and technology-building as well as maintenance projects (see also Section VIII).

Third, STI institutions were often weak and their roles poorly defined. Science and research agendas were often too broad and did not focus sufficiently on practical development and innovation work that could be used in public service or business activities. Policy

[82] UNCTAD, 2009.

recommendations gravitated around developing sector-specific targets, including well-defined goals, objectives, outputs, outcomes and timelines as well as incentivizing science and research activities to be MDG relevant. Often the problem lay with a formidable lack of networking and collaboration across sectors and among public institutions, firms and academia. Supporting such communication networks and improving access and use of ICTs are critical policy issues that may need to be taken up by international institutions and donor countries.

Fourth, despite positive trends in ICT diffusion, more needs to be done to achieve an information society for all. ICT represents an opportunity for leap-frogging, but important gaps remain within economies and societies (e.g. due to language of content; rural versus urban; gender; generation) that affect the demand for and the ability to use ICT. Improved access to ICTs (especially other than mobile phones) has mainly benefited the urban and young people speaking a dominant language. An extra effort is required to bring marginalized and disadvantaged groups into the information society.

VIII. Foreign Aid Inflow and Debt Scenario

Trends in Aid Flow

Originally developed countries used to grant money to a careful selection of countries (typically former colonies) or strategic partners. Aid was then reserved to a small number of partnerships and aid flows were limited and concentrated. Recently, however, aid flows have boomed, new bilateral and multilateral donors have emerged, lastly with the emerging economies, i.e. the BRICS that moved from being aid recipients to aid donors[83].

One important aspect of investment financing in support of diversification and structural change in LDCs is their foreign exchange requirement for imports of capital goods (as well as other forms of development financing). Chart 8.1 shows that in spite of a steady increase in ODA flows since 1998, both including and excluding debt relief, total net disbursed ODA flows to LDCs have remained well below the committed levels during the course of the last ten years. In 2008**,** the real net official disbursements to LDCs excluding debt relief amounted to some $ 37 billion, against some $ 18 billion in 2000. The record gap between real committed and effectively disbursed ODA ($ 10.2 billion) for 2008 reflects the impact of the financial crisis on the donors' financial accounts. Such a gap, which is likely to be reproduced again in 2009 and 2010, is also likely to negatively affect the budget balance of the aid-dependent LDCs, for which net ODA disbursements accounted for one fifth of GDP in 2006-2008. Furthermore, econometric calculations by UNCTAD of all donor countries that have undergone a banking crisis confirm the positive correlation between banking crisis and shrinking ODA, while showing that it takes three to five years for ODA flows to recover to their pre-crisis levels. If ODA flows recover from the present crisis as slowly as they did from previous episodes of banking induced recessions, it is likely that LDCs will experience multiple years of lower than anticipated ODA inflows, affecting both the development of their productive capacities and delaying improvements in social indicators.

But, ensuring a continuity of aid flows[84] is as important as the quality of aid received. Aid efficiency through the concentration of aid portfolios within a reasonable amount of donors[85] could help LDCs reduce their time for implementation and transaction costs.

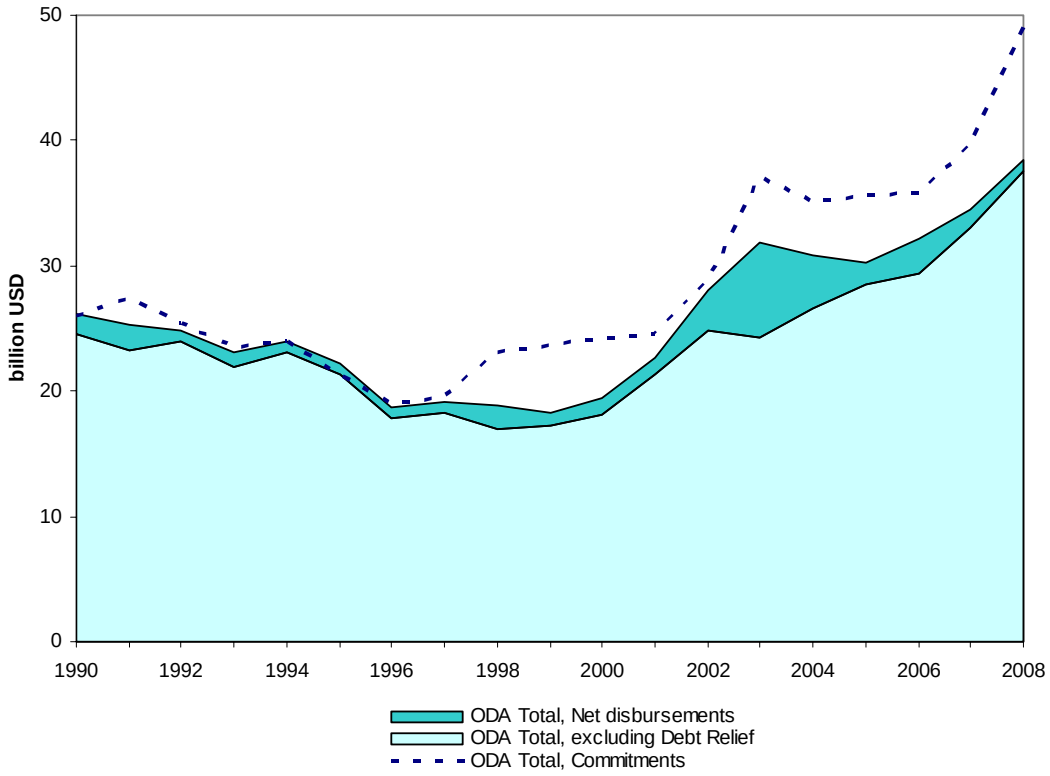
[83] Frot and Santiso (2010)

[84] And taking advantage of the potential counter cyclical role of aid especially in time of crisis.

[85] Frot and Santiso (2010) argued that in 1960 the average OECD donor disbursed aid to an average of 20 countries per year, while in 2006 it did so to more than 100, without necessarily increasing the aid budget at the same time as number of beneficiaries increased.

Chart 8.1

ODA and Debt Relief to LDCs
(disbursements in constant 2008 USD)



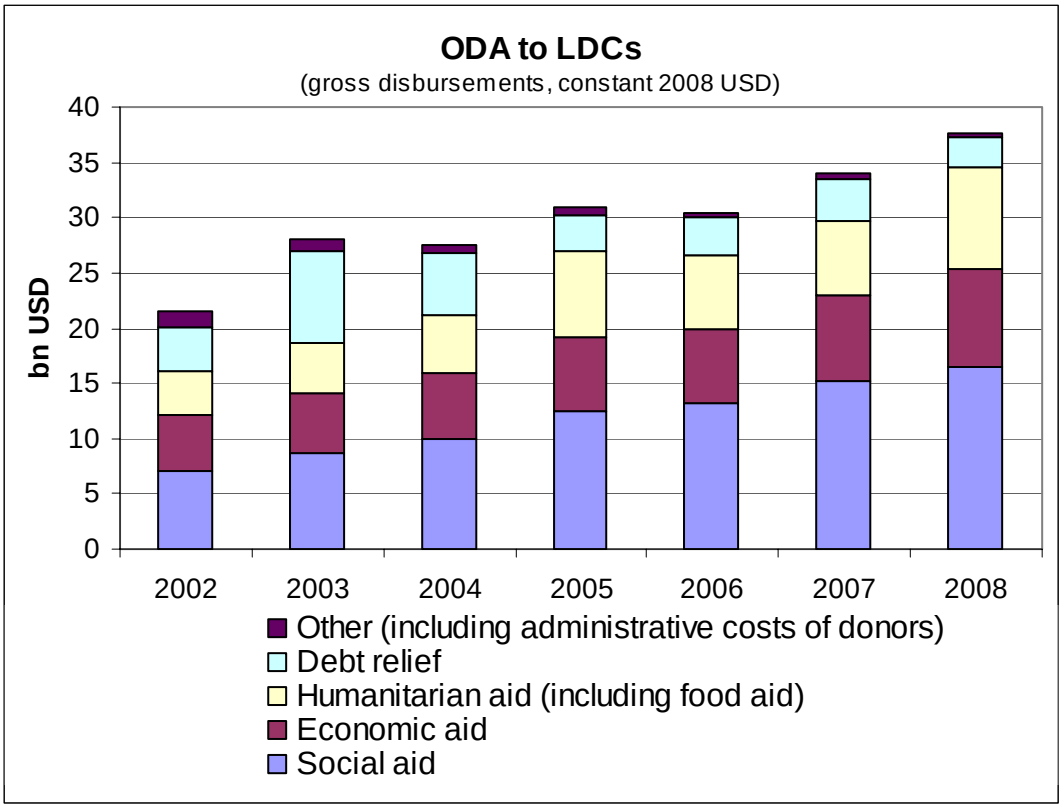
Source: OECD.

The developmental role of aid, in the form of enhancing productive capacity, creating employment, increasing domestic value added and contributing to structural change seems to have been neglected in favour of social expenditures in the LDCs (see Chart 8.2). In 2008, the share of disbursements going to economic infrastructure and production sectors amounted to 15 %, against some 43% going to social and humanitarian aid. But, in order to achieve structural change, increases in ODA for social infrastructure and services must be accompanied by increases in ODA for economic infrastructure and productive sectors.

Official Development Assistance (ODA) provides an important source of financing for LDCs, particularly for the pursuit of the MDGs as they often lack the ability to broaden their tax base, while facing high GDP growth volatility and hence fragile revenue bases. Most LDCS do not have access to capital from international financial markets, making concessional loans and grants crucial forms of financing for development. Repeated calls have been made for donors to increase ODA contributions to the 0.7 per cent of GNI target, most recently reaffirmed at the Millennium Summit. The success of the MDGs hinges on additionality, namely the provision of adequate financing for achieving MDG goals while maintaining financing for other internationally agreed development activities.

With regard to achieving the MDGs, the quality of aid is just as important as scaling-up of ODA. If ODA is to fulfill its generally accepted role of boosting growth, reducing poverty and helping to restructure developing economies as they gradually integrate globally and emerge from decades of decline, it is imperative to give preference to those sectors, channels and partnerships, which are truly most effective in this respect. Hence, greater selectivity and precision when discussing ODA is needed if distinct ODA-MDG links are to be emphasized.

Chart 8.2



Source: OECD.

Although aid dependency is still high in LDCs compared to non-LDCs (Chart 8.3), the overall trend for LDCs in the recent past had been encouraging (Table 8.1). Aggregate figures mask the large differences that exist within the group: those economies that moved into manufacturing have decreased their aid dependence, which only accounts for some 3% of their GDP. On the other hand, the agricultural and mineral exporting LDCs, have experienced an increase in their dependency during the past decade, relying on ODA for some 20% of their GDP. The net ODA/GNI ratio for the group in 2008 is projected to decline from 10.5% (1990-99) to about 7.9%. This decreasing trend remains most perceptible for the African LDCs.

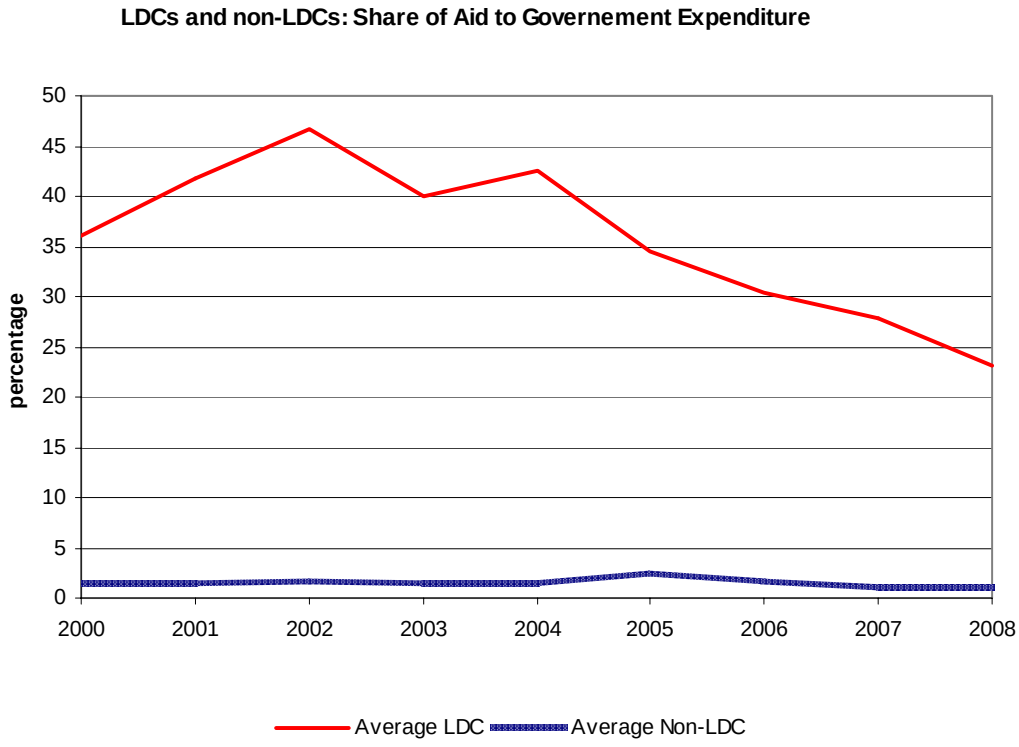
Table 8.1 : Net official development assistance as % GNI

Time periods

	1990-1999	2000-05	2007	2008 proj.
LDC	10.5	9.7	8.3	7.9
African LDCs	13.3	12.8	9.4	8.5
Asian LDCs	6.0	5.2	5.9	6.5
Island LDCs	15.2	17.9	14.8	12.7

Source: World Bank, World Development Indicators, online

Chart 8.3



The issue of aid effectiveness has gained considerable attention in recent years as the quality of aid and the modes of delivery are increasingly seen to be as important as its volume. Interest has been building towards ensuring that efforts of donors are coordinated and aligned to increase the potential impact. This concern, alongside rising aggregate levels of ODA, raises the hope that broader development goals, undistorted by foreign policy calculations, might return to the top of the aid agenda. The renewed focus on aid effectiveness also opens the door to a broader assessment of the impact of the shift in ODA away from economic development and growth objectives towards poverty-reduction measures through aid to health, education and water supply, which might lead to a rebalancing of the two. It is timely to assess the policies of the last ten years as the shift in focus of ODA towards social sectors raises the question of whether the underlying causes of poverty and low rates of economic growth are being addressed adequately and, in particular whether investment in productive capacities is being neglected.

Certainly increasing the effectiveness and impact of aid is a desirable outcome, particularly if countries are to achieve the MDGs by 2015. It is important for both donor and developing countries to work together to ensure that the allocation of development aid is in line with a country's development objectives. Moreover, DAC members are encouraged to uphold their aid commitments and ensure stable and predictable delivery of aid to recipient countries.
Critical questions surrounding type, sources, purpose and channels of aid are of special importance in the larger debate of aid effectiveness. The policy framework, if not paradigm, that has guided ODA flows over the past decade or so has rested on policy research that asserts that in the long run better institutions produce better growth. However, such assumptions are simplistic and often give rise to cumbersome requirements by the international donor community on LDCs, while the correlation between institutional quality and growth is complex and requites a different policy focus form the one adopted so far[86]. might be misguided as was discussed in the Trade and Development Report 2006

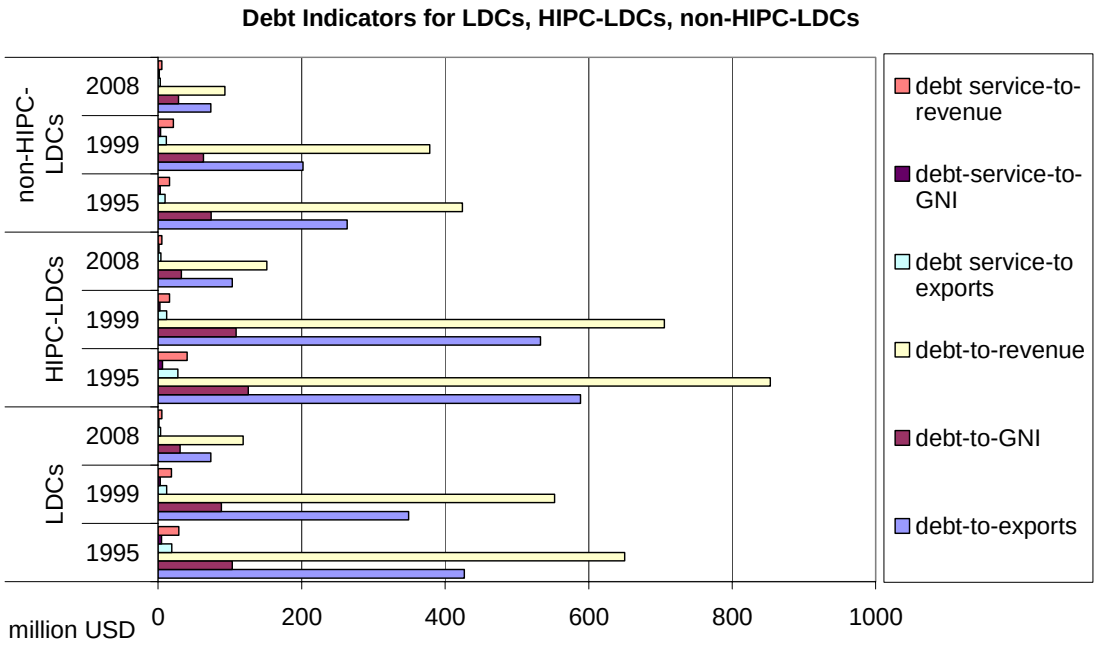
Of equal importance is ensuring greater predictability and stability in aid flows, given their relatively high weight relative to other macroeconomic variables. UNCTAD's Trade and Development Report 2008 shows that increased predictability is able to make aid more effective in the growth processes of developing countries. In addition, since official development assistance often is a complementary input in the development process, increased predictability of aid flows may help in attracting finance and investment to build additional productive capacities.

Debt Scenario

Thirty one out of forty nine LDCs are Highly Indebted Poor Countries (HIPC). Debt stock reductions associated with the HIPC and Multilateral Debt Reduction Initiatives (MDRI) coupled with robust international growth of the previous years led to an impressive improvement in debt indicators between 2003 and 2007 for developing countries in general and LDCs in particular. Chart 8.4 shows that all debt related indicators of LDCs as a group and HIPC-LDCs in particular have improved: debt service to revenue, debt service to GNI, debt service to exports, debt service to revenue, debt to GNI, and debt to exports.

Chart 8.4

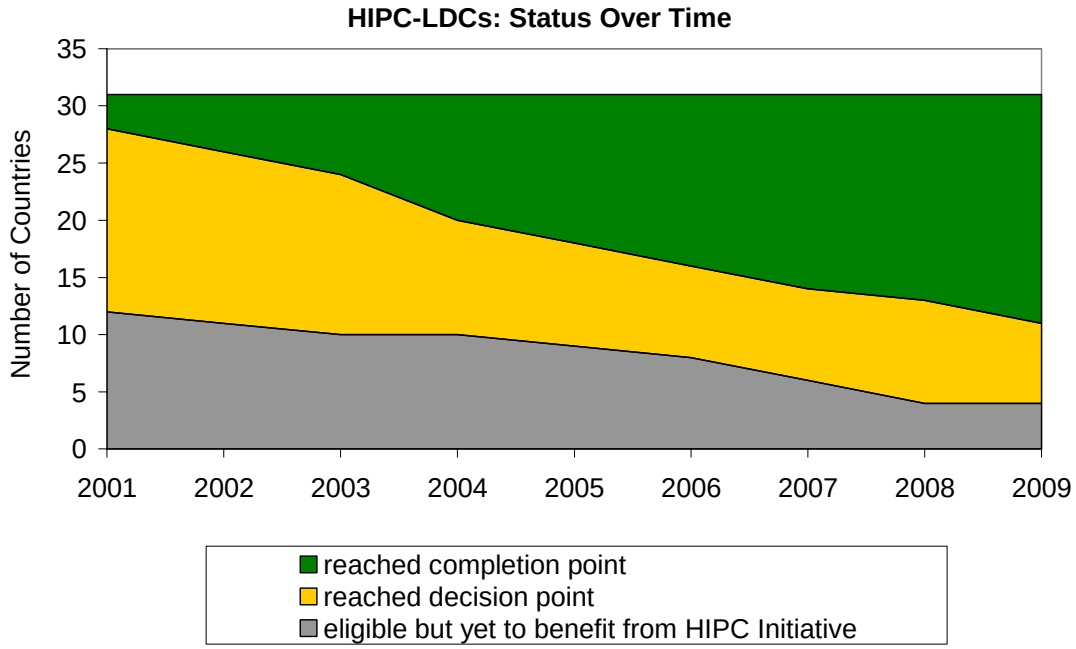
[86] For a fuller discussion see Trade and Development Report 2006, Chapter VI, and Trade and Development Report 2008 Chapter V.



Source: World Bank Development Indicators.

Furthermore, the number of LDCs reaching completion point and benefiting from debt write offs has been consistently rising during the current decade (see Chart 8.5) contributing to the improvement of their debt indicators. Some LDCs have experienced dramatic improvements in their debt indicators in the 2000s. For example, Mozambique, Sierra Leone and Zambia managed to decrease their external debt stock as a percentage of their GNI from more than 180% in 2000 to less than 45% in 2007.

Chart 8.5



One of the problems that many LDCs are confronting is that very few of them can borrow in their own currencies. This problem has been referred to as the 'original sin'[87]. The foreign currency denomination of the debt is affected by policy swings in the issuing country. An appreciation or depreciation of the internationally-denominated external debt has large implications to the cost of servicing it. Estimates have shown that after external shocks, debt to GDP ratios in developing countries have risen 10-20% higher than would have been the case with debt denominated in local currency[88].

Crisis: Aid Flow and Debt

Highly Indebted Poor Countries (HIPCs) have been affected by the global economic and financial crisis through a number of channels. Completion-point countries are facing an average current account deficit of 8 per cent of GNI and the average current account deficit of decision point and pre-decision point countries exceeds 10 per cent of GNI.

A recent IMF paper[89] on the impact of the crisis on the debt situation in individual LICs and LDCs finds that the financial crisis has negatively affected most of the countries' debt indicators in the short run, although the medium term outlook for the whole group remains positive. The relatively stable debt outlook for LICs over the next five years hinges on the critical assumption that the crisis has no adverse long-term effect on economic growth in

[87] Einchengreen & Hausmann (1999)
[88] Hausmann & Rigobon (2003)
[89] "Preserving Debt Sustainability in Low-Income Countries in the Wake of the Global Crisis", IMF, April 2010

developed countries and hence that exports from LICs will start recovering by 2013, although it will take up until 2021 for current account deficits to return to pre-crisis levels.

However, although the debt situation in LDCs as a group does not point to a new debt crisis, the situation in a few countries warrants particular attention. In Eritrea and Sudan, both of which have not yet reached the decision point in the HIPC process the present value of debt to exports exceeds 500 percent, while the situation is probably even worse in Somalia, where this ratio was estimated to 1000 percent in a 2004 DSA exercise, but no recent data is available to calculate more recent debt ratios. A difficult debt situation also persists in Guinea-Bissau, Liberia, Comoros, Djibouti, Guinea and Togo with debt ratios above thresholds. However, as these are post decision point HIPCs, it is expected that their debt position will improve substantially upon reaching completion point and benefiting from deep debt stock write -offs under the HIPC and MDRI Initiatives.

The case of Myanmar presents some difficulties as there is no available data on its external debt and it is not currently eligible for the HIPC Initiative. When the data becomes available, a full DSA will need to be undertaken to determine the country's eligibility for the HIPC Initiative.

Among the post completion LDCs showing some levels of debt distress[90], Afghanistan's debt situation calls for particular efforts on the part of the international donor community as the country is not expected to achieve sustainability over the next decade. Although the breach of thresholds is less severe in Burkina Faso, Burundi and the Gambia, these countries are also not expected to reach sustainability in the medium term. Continued and increased access to highly concessional finance is therefore needed to maintain debt sustainability beyond the completion point in these countries aver a prolonged period of time.

Lessons learnt

[90] These are Burundi, The Gambia, Sao tome and Principe, Afghanistan and Haiti, Burkina Faso

IX. Concluding Observations

The global economic growth for the period 2001-2008 has buoyed up many developing countries, particularly among the LDCs. Many of these experienced robust economic growth rates in a context of relative macroeconomic stability, with low inflation and improved resource balances, including sustained FDI and ODA inflows. However, it is doubtful whether this performance was the reflection of structural (catalytic, irreversible) progress in most LDCs. The group, during this period, was severely struck by the fuel and food crises, which affected their trade balance, but they demonstrated better resilience to the financial crisis than other developing countries. Overall, the opportunities and risks emanating from globalization forces entailed a greater international exposure of the LDCs, without convergence with more advanced economies for a large majority of them.

The marginal position of the LDCs in world investment, trade and income remained more or less unchanged. Pockets of improvement cannot hide the structural weaknesses of these countries, a majority of which remain far away from LDC graduation thresholds and from meeting MDG targets. In most LDCs, structural progress failed to take place because opportunities to enhance capabilities and improve economic specialization were missed, while infrastructural development was insufficient to allow the economies to rise in relevant international value chains. However, developments in activities such as hydrocarbons, low-tech manufacturing and international tourism did generate some benefits in terms of employment and income distribution.

In order to accelerate structural progress, and in some cases reverse the de-industrialization process, there is a need to revisit the development approaches pursued by the LDCs and their development partners, particularly in the light of lessons from recent global crises. The LDCs should undertake a prudent and strategic mix of macroeconomic, trade and investment measures, and achieve a balance between market reforms and policy interventions. Specifically, this will entail creating an enabling macroeconomic framework to facilitate structural progress, with active use of public expenditure, monetary policy and exchange rate management. Strategic interventions through trade and investment policies will be necessary to guide FDI and other external resources to productive capacity-building with employment linkages. A new generation of international support measures is desirable given the growing diversity of needs among the LDCs, notably in areas such as infrastructure development and technological capacities. This implies the creation of sector-specific investment funds as well as special adaptation measures such as debt moratoria.

References

Baldwin, R. (2009) "The Great Trade Collapse: What Caused it and what does it Mean?". In Baldwin R. (ed.) *"The Great Trade Collapse: Causes, Consequences and Prospects"* VoxEU.org publication, pp. 1-16.

Bems, R., Johnson, R.C., Yi, K-M. (2009) "The Collapse of Global Trade: Update on the Role of Vertical Linkages" ?". In Baldwin R. (ed.) *"The Great Trade Collapse: Causes, Consequences and Prospects"* VoxEU.org publication, pp. 79-86.

Borgatti, L. (Forthcoming) "Economic Integration in Sub-Saharan Africa", in Jovanovic, M. (ed.) *International Handbook of Economic Integration*, London: Edward Elgar.

Donner J., M. Escobari (2009). "A review of the research on mobile use by micro and small enterprises (MSEs)", Paper presented at the International Conference on Information and Communications Technologies and Development, 17-19 April 2009, Doha, Qatar.

Einchengreen, B. & R., Hausmann (1999) "Exchange Rates and Financial Fragility". NBER Working Paper No. 7418. Dowloadable from http://www.nber.org/papers/w7418

Frot, E., J. Santiso (2010) "Crushed Aid: Fragmentation in Sectoral Aid". OECD Development Centre Working Paper No. 284.

Hausmann, R., R. Rigobón. (2003) IDA in UF: On the Benefits of Changing the Currency Denomination of Concessional Lending to Low-Income Countries. Harvard University , Cambridge , MA . Unpublished.

International Trade Center (ITC) (2010a), ITC Trade Map Factsheet: LDC Trade Recovery in 2009. Downloadable from www.intracen.org

International Trade Center (ITC) (2010b), ITC Trade Map Factsheet: LDCs Terms of Trade during the Crisis and Recovery. Downloadable from www.intracen.org

Karshenas, M. (2009) The Impact of the Global Financial and Economic Crisis on LDC Economies. Technical Report. New York: UN-OHRLSS.

OECD/WTO (2009). *Aid for Trade at a Glance 2009: Maintaining Momentum*. Downloadable from www.oecd.org. Paris: France

OECD (2010) African Economic Outlook, Paris: France.

Phelps, N. A., J. C. H. Stillwell and R. Wanjiru (2008) "Missing the GO in AGOA? Growth and Contraints of Foreign Direct Investment in the Kenyan Clothing Industry". *TNC Journal*. August.

Pinkovskiy, M and X. Sala-i-Martin (2010) "African Poverty is Falling … Much Faster than you Think!". NBER Working Paper No. 15775.

Samuelson, P. (2004) Why Ricardo and Mill Rebut and Confirm Arguments of Mainstream Economists Supporting Globalization. *Journal of Economic Perspectives*, Summer.

Thirlwall, A. P., J. Bergevin (1985) "Trends, Cycles and Asymmetries in the Terms of Trade of Primary Commodities from Developed and Less Developed Countries". *World Development*, July.

Thirlwall, A. P. (2006) *Growth and Development with Special Reference to Developing Economies.* 8th edition. New York: Palgrave MacMillan.

Udomkerdmongkol, M., Morrissey, O. (2008), "Political Regime, Private Investment and Foreign Direct Investment in Developing Countries" UNU WIDER Paper No. 2008/109.

UNCTAD (1999) *The World Investment Report*. FDI and the Challenge of Development. Sales no.: E.99.II.D.3

UNCTAD (2004). *The Least Developed Countries Report*: *Linking International Trade with Poverty Reduction*. United Nations Publication, Sales No. E04.II.D.27, Geneva and New York.

UNCTAD (2006). *The Least Developed Countries Report*: *Developing Productive Capacities*. United Nations Publication, Sales No. E.06.II.D.9, Geneva and New York.

UNCTAD (2007) Erosion of trade preferences in the post-Hong Kong framework: From "trade is better than aid"**.** United Nations. UNCTAD/LDC/2005/6.

UNCTAD (2008), *The Least Developed Countries Report: Growth, Poverty and the Terms of Development Partnership*. United Nations Publication, Sales No.E.08.II.D.20, New York and Geneva.

UNCTAD (2009a) *Trade and Development Report. Responding to the Global Crisis. Climate Change Mitigation and Development.* United Nations Publication, Sales No. E.09.II.D.16, New York and Geneva.

UNCTAD (2009b), *Information Economy Report 2009: Trends and Outlook in Turbulent Times*. United Nations Publication, Sales no.: E.09.II.D.18, New York and Geneva.

UNCTAD (2009c) The Least Developed Countries Report. The State and Development Governance. United Nations Publication, Sales No.: E.09.II.D.9, New York and Geneva.

UNCTAD (2010) *The Least Developed Countries Report ……*

UNCTAD (forthcoming) Science, Technology and Innovation Policy. Review of Lesotho.

Wangwe, S., D., Rweyemamu (2002) East Africa's Industrial Development in the Context of Globalization. Paper presented at a Workshop on "Globalization and the East African Economies", 15-16 April 2002, Economic and Social Research Foundation, Dar es Salaam, Tanzania.

World Bank (2009). *Global Monitoring Report 2009. A Development Emergency*. Washington DC: USA.

World Bank (2010) *Global Commodities Markets Companion to Global Economic Prospects 2010.* Washington DC: USA.

WTO (2010), "Market Access for Products and Services of Export Interest to LDCs". WT/COMTD/LDC/46/Rev.1.

Yang, Y., S. Gupta (2005), Regional Trade Arrangements in Africa: Past Performance and the Way Forward. IMF Working Paper WP/05/36.

Annex 1

Structural Change and Progress towards Graduation from LDC status for the 49 LDCs, 2001-2010

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Afghanistan	Absence or near-total absence of improvement before and after 2001. Uncertainty about the extent to which recorded progress in secondary school enrolment will eventually translate into enhanced capabilities.	Beside the opium trade, diversification efforts have been confined to some light manufacturing, with handicraft accounting for 45% of lawful merchandise exports in 2008.	(Paucity of reliable data.) Progress, if any, will relate to the income-generating impact of poppy cultivation.	No structural progress. The country remains far below graduation thresholds under two of the three criteria. Socio-economic progress has been sporadic, unless the *opium economy* is accounted for.
Angola	Notable progress in Internet penetration (+563% in terms of percentage of users) and tertiary education, yet with little catalytic impact outside the oil-propelled, urban economy.	With petroleum products and diamonds accounting for 95% and 4%, respectively, of all goods and services exports in 2008, Angola has become a case of extreme specialization in minerals.	No notable progress in this area for a large share of the population, despite intended efforts to re-distribute, particularly through infrastructural investment, some of the vast benefits accruing to the oil-rich	No structural progress other than potentially, as the country's growing financial base could open several key avenues for progress. A likely case of pre-qualification for graduation in the near future, by virtue of the 2005 amendment to the graduation rule[91]. Also an emblematic example of non-

[91] To qualify for graduation, an LDC must have risen toward graduation thresholds under at least two of the three criteria, through at least two consecutive triennial reviews of the list of LDCs. However, an amendment to this rule was adopted by the Committee for Development Policy in 2005: a country with a (three-year average) gross national income per capita more than twice higher than the updated graduation threshold ($1,086 in 2009) will be deemed eligible for graduation from LDC status regardless of its performance under the other two criteria (human assets; economic vulnerability). The rationale for this amendment relates to the idea that, a country enjoying a sudden massive influx of revenue (typically from mineral exports) that is reflected in its per capita income will cease to be considered in need of LDC treatment.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
			economy.	simultaneity between progress toward graduation and structural progress.
Bangladesh	Slow progress within the labour force overall, despite the rise of an entrepreneurial class, measured through notable improvements in relevant areas such as ICT expenditure (+275% in the ratio to GDP), Internet penetration, and enterprise creation.	One of the few LDCs with a meaningful diversification record and a proven ability to achieve a successful specialization.	Little signs of poverty reduction, given the size of the rural and unskilled population, despite indications of progress toward greater equity through gains in health (child mortality) and education (school enrolment).	Structural progress only on the specialization front. Eventual qualification for graduation is a realistic scenario, but subject to tangible progress on the human capital front.
Benin	Good progress in access to higher education and Internet penetration prefigures possible capability enhancements.	The rise of tourism as the second largest source of foreign exchange earnings (after cotton) demonstrates the success of consistent diversification efforts.	Indications of progress in basic health (child mortality) and primary education prefigure an environment of equitably improved welfare, and ultimately of equitable poverty reduction.	Elements of structural progress already visible through diversification. Not a likely graduation case in the foreseeable future, despite notable progress under the graduation threshold relevant to the economic vulnerability criterion.
Bhutan	Significant improvements in the area of ICT (+107% in the	Successful specialization into exportable electricity	Significant advances in key factors of poverty reduction	Evidence of structural progress in terms of capabilities and specialization.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	percentage of Internet users) and in the sphere of education (+23% in secondary school enrolment) have begun to translate into enhanced productive capabilities.	production and manufacturing, which are two pillars of structural progress.	with equity improvements in child health and primary education.	Progress under the LDC criteria echoes the structural improvements in human capital and economic specialization. Genuine prospects for graduation within a decade.
Burkina Faso	Notable efforts in public expenditure toward tertiary education (+45%), and good progress in Internet penetration prefigure some improvements in productive capabilities in the long run.	Export concentration in cotton has doubled in 20 years, with raw cotton currently accounting for 67% of total exports of goods and services. The tourism potential is only a nascent part of the structural transformation of the economy.	Limited overall progress under this criterion, despite notable improvements in one area of importance for equitable poverty reduction in the long run, namely, girls' education.	Limited structural progress. Not a likely graduation case in the foreseeable future, despite consistent progress toward lesser economic vulnerability.
Burundi	Little or no measurable progress toward enhanced capabilities despite commendable efforts toward better educational achievements (+31% in tertiary education expenditure).	Little change over the decade, with coffee and tea still largely dominating the export economy.	No tangible progress toward equitable poverty reduction in the absence of encouraging signs of improvement anywhere other than in the field of primary education.	Limited structural progress, and no prospects for graduation in any foreseeable future.
Cambodia	Though insufficient to propel	The growing importance of the	No significant progress under	Subject to continuation, the structural

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	the economy, achievements in the field of human capital (+37% in secondary school enrolment; +133% in tertiary education enrolment) and advances in the area of ICT prefigure capabilities for an entrepreneurial economy.	garment and tourism sectors (77% of total exports of goods and services in 2008) reflects the nation's eventual ability to rise along important value chains and emulate ASEAN neighbours.	this criterion, despite the employment creation effect of structural transformation. The minimum educational progress required for meaningful gains over poverty is still to be seen.	progress taking place in human capital and economic specialization makes the prospect of graduation within less than two decades a plausible scenario.
Central African Republic	Absence of reliable data for any assumption of progress in this area, and absence of qualitative evidence of any such progress.	Little progress over the last decade, with diamonds and wood products largely dominating the export structure (87% of all exports in 2008), and cotton and coffee now accounting for less than 3% of total export earnings (30% in 1985).	Pockets of progress in the area of basic education are insufficient to prefigure advances toward equitable poverty reduction.	No evidence of structural progress, and absence of prospect for graduation in the foreseeable future.
Chad	Progress toward better secondary and higher educational achievements are still too limited to be considered as early fruits toward enhanced innovatory and productive capabilities in the long run.	Radical economic transformation over a decade, with crude petroleum now accounting for 84% of total exports of goods and services (cotton represented 60% of all exports in 1985).	No evidence of poverty reduction outside the urban sphere of the oil economy.	No structural progress so far, despite a growing financial base derived from the country's mineral wealth. Not a potential graduation case in the near future, unless the hydrocarbon specialization raises the level of national income to the point of justifying the 2005 amendment to

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
				the graduation rules.
Comoros	Limited advances toward enhanced productive capabilities despite progress in access to, and the use of, information and communication technology.	Tourism and transport now account for over 50% of total exports of goods and services (cloves, vanilla and ylang-ylang = 28%). Given the smallness of the country, this diversification can be considered a sign of structural progress.	Equitable poverty reduction, an unlikely achievement on the main island alone (Grande Comore), becomes a goal beyond expectations if measured from the perspective of Comoros as an unevenly developed archipelago.	Not a likely graduation case despite visible pockets of structural progress (through agriculture and services) and progress under the LDC criteria.
Congo (Dem. Rep. of the)	Sporadic advances in productive capabilities, not even remotely commensurate with the immensity of natural and cultural resources and the economic potential they offer.	With four minerals accounting for 87% of total merchandise exports, the country continues to be a highly concentrated economy. The vast agricultural potential paradoxically remains hidden in macroeconomic terms.	The size, complexity and instability of the country make equitable poverty reduction and the wider goal of structural progress a vision beyond national ambit.	One of the most abundantly endowed LDCs, yet an economy where signs of structural progress are still not visible, and a country much remote from graduation thresholds.
Djibouti	Progress in educational achievements and significant advances in the area of ICT (including Internet penetration) reflect a national disposition toward innovation and modernization.	Given the small size of the country and the limited economic prospects outside the capital city, the success of port services and transport activities in general can be considered as denoting a	Given the unique competitive advantage of the port-based formal economy, reaching equitable poverty reduction is a realistic goal. The significant progress observed in the field of primary education is an	Modest but arguable evidence of structural progress overall (through the advent of a modern port-based economy), considering the smallness of the country. A borderline case under the graduation line pertaining to the income criterion, yet an

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
		context of optimum specialization.	early sign of advancement toward better opportunities for all, a condition for equitable socio-economic progress.	unlikely graduate given the existing gap in human assets.
Equatorial Guinea	Advances such as those in the field of ICT are almost exclusively confined to the urban, oil-propelled economy, and not visibly oriented toward innovation and diversification.	An extreme case of concentration in hydrocarbons, with oil and methanol now accounting for 99% of total exports. The collapse of agriculture in less than two decades mitigates the perception of an enviable specialization, but the financial means to fuel structural progress are now available.	Near total absence of progress, in the acutely dual economy, toward equitable poverty reduction for a vast majority of the people.	No structural progress other than potentially, as the country's rapid enrichment could open several key avenues for progress. The first graduation case involving the 2005 amendment whereby a per capita GNI level at least twice greater than the graduation threshold will qualify the country for graduation regardless of its performance under the other criteria.
Eritrea	Modest advances in the nation's access to ICT are insufficient to make the goal of capability enhancement a workable objective in the short or medium run.	A range of services dominates the economy (88% of all exports in 2008), and there is no reflection of any significant rural activity in the balance of payments or any other macroeconomic account.	The absence of notable gain in the area of primary education does not augur well for any advancement toward equitable poverty reduction.	No structural progress. Not a potential graduation case in any foreseeable future.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Ethiopia	As in any large country, the sporadic capability enhancements observed (e.g. +50% in secondary school enrolment) are not commensurate with the vastness of the needs economic modernization would imply. Some progress under this criterion nevertheless took place in the manufacturing and service-propelled urban economy.	With four service sectors (including air transport and tourism) now accounting for 47.5% of total export earnings in parallel to a range of agricultural and mineral exports, there is evidence of structural improvement resulting from successful diversification efforts.	The unemployment record tends to dampen the prospects for equitable poverty reduction, as well as health and education-related improvements.	Structural progress visible only in the economic specialization pattern. Not a likely graduation case, although the country meets one of the three graduation thresholds. The contrast between a score of lesser economic vulnerability and the lasting poor performance under the income criterion illustrates a paradox: diversification is desirable, but not necessarily sufficient to trigger poverty reduction.
Gambia	Combined progress in secondary school enrolment and access to ICT (with substantial gains in Internet penetration) tends to prefigure enhanced capabilities that might sustain the competitiveness of the service-oriented economy.	Tourism and transport have been dominating the balance of payments for 20 years, thereby demonstrating stable diversification beyond the traditional main crop (groundnuts). This configuration reveals what may be deemed to be the most desirable economic specialization, considering the smallness of the country.	Delays in the area of girls' education (albeit in a climate of reduced child mortality) blur the scope for equitable poverty reduction, which implies equal economic opportunities for all. The service economy nevertheless tends to serve this structural objective.	A measure of structural progress, as evidenced by a diversification pattern that may be deemed near to optimum, considering the smallness of the country. Not a likely graduation case in the foreseeable future, in the absence of visible progress under the thresholds.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Guinea	Efforts to promote educational and technological progress were observed throughout the decade (+42% in secondary school enrolment). However, translation of this progress into greater productive capabilities and modernization of the economy remains to be seen.	Three mineral sectors (bauxite, gold, diamonds) continue to dominate the economy (78% of total exports of goods and services in 2008), and little diversification ever took place beside this lasting specialization landscape.	No statistical evidence of equitable poverty reduction through either income distribution or health and primary education. Examples of contrasting trends are the decrease in child mortality and concurrent decline in girls' access to secondary education.	No evidence of structural progress despite the country's natural wealth. The country has shown a performance already above the graduation line with regard to the economic vulnerability criterion, and a worsening performance under the income threshold..
Guinea-Bissau	No quantitative or qualitative evidence of progress toward enhanced productive capabilities.	Export concentration in cashew nuts intensified over the decade (now accounting for 83% of total exports). Vulnerability to deleterious external influences is an obstacle to structural progress by way of diversification.	Limited --if any-- progress toward poverty reduction for a vast majority of the people, even though there has been a reduction in the child mortality rate.	No structural progress.
Haiti	Capability enhancements, until 2009, were fuelled by progress in the people's access to ICT more than through heightened educational achievements. The tragedy of January 2010 annihilated nearly all gains in this regard.	The clothing and tourism industries accounted for 83% of total exports of goods and services in 2008. The question of what is the most desirable economic specialization remains valid in the context of the reconstruction efforts now	Limited --if any-- progress toward equitable poverty reduction over the decade. Restoration of the economic activities that had prevailed in the 1980s (with a more competitive and diversified manufacturing sector) could	The country is now faced with the challenge of trying to prevent the remaining structural factors of development, notably human capital from decreasing. Particularly acute is the concern about an accelerated brain drain problem.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
		under way.	reverse this trend and make welfare and equity a tangible dual objective.	
Kiribati	The permanent geographical constraints on the country and the ensuing acute socio-economic disadvantages have made the goal of enhancing productive capabilities an overwhelming challenge.	Developing a viable tourism product might be the only avenue for improving the specialization pattern, yet remains a difficult goal to fulfill. The fresh water scarcity problem alone makes the development of any further industry (such as fish canning) impossible.	The apparent relative prosperity at the macroeconomic level (in terms of per capita income) is not visible at household level. Families strive to secure a daily fresh water supply, and often lack proper sanitation.	No structural progress. The CDP, in the 2009 review of the UN list of LDCs, observed that Kiribati had enjoyed limited progress under the graduation criteria, and no longer qualified for graduation from LDC status (the opposite had been foreseen in the previous review of the list in 2006, though the UN never lost sight of the extreme vulnerability of the country).
Lao PDR	Tangible progress toward enhanced productive capabilities is prefigured by impressive records in the area of education (e.g. +135% in tertiary education enrolment) and in the people's access to	Laos is gradually becoming a diversified economy, with steady primary exports and promising advances into non-traditional activities such as garments and tourism.	Steady though slow progress in terms of equitable poverty reduction is demonstrated by gains in the areas of child mortality and primary education, in an economic environment that has made	An example of structural progress, with the potential to eventually converge with more advanced economies. A potential graduation case within less than two decades, subject to continued progress in human capital, and further advancement

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	ICT, and evidenced by a growing momentum in enterprise creation.		improved specialization and employment creation the main features of structural progress.	in the specialization pattern.
Lesotho	Capability enhancements were more the consequence of ad hoc training for local workers in the foreign-owned textile industry than the result of a successful human capital development policy.	Considering the smallness and remoteness of the country, the fast development of the textile industry and related signs of economic modernization made Lesotho one of the noted cases of improved specialization among African LDCs.	The poverty reduction impact of industrial growth improved the income distribution pattern to some extent. However, the fragility of the acquired industrial specialization, in the context of fierce world competition in the field of textiles, makes equitable poverty reduction a goal for which a national strategy is still needed.	With its structural progress through the specialization pattern, and the improvements made towards meeting two of the three LDC criteria (per capita income and human assets), it represents one of the few potential graduation cases among non-oil LDCs in Africa.
Liberia	No measurable evidence of enhancements in productive capabilities over the decade.	The rise of tourism in recent years (now the second largest source of gross foreign exchange earnings after rubber) reveals the country's capacity to have its share of West Africa's gradual economic transformation, albeit with modest results in the people's	Limited poverty reduction over the decade; no statistical evidence of improvements in the income distribution status of the nation.	Not a potential graduationcase,, as factors of structural progress are still to be put in place.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
		standards of living.		
Madagascar	Measurable advances in research & development expenditure, Internet penetration and enterprise creation attest to some enhancements in the productive capabilities of the nation.	The chronic political instability does not appear to have been a radical obstacle to economic progress through diversification, as the clothing and tourism industries now dominate the economic landscape.	Limited evidence of poverty reduction despite the progress noted in two key redistributive factors, namely, expenditure and action toward reduced child mortality, and enhanced primary education.	Momentum of structural progress was disrupted during the decade. The country is a borderline case under the economic vulnerability criterion as a result of diversification, but is not likely to graduate in the foreseeable future, given the lasting poverty and its limited performance under the other LDC criteria (per capita income and human assets).
Malawi	Despite the scarcity of reliable data on human capital development, the recorded progress in Internet penetration and business creation indicates some advances in productive capabilities.	With tobacco and tea still accounting for nearly two thirds of total exports of goods and services, the economic structure has changed little. Yet nascent clothing and tourism activities denote diversification efforts that prefigure the possibility of structural improvement.	As in several other sub-Saharan African countries, statistical evidence limited to lower child mortality and improved primary education is a frail basis for showing that equitable poverty reduction has already taken place.	Limited structural progress. Not a potential graduation case in any foreseeable future.
Maldives	Significant progress (despite unique geographical challenges) in the sphere of	A successful record in improving specialization entirely due to the	Progress in this area, in spite of decentralized governance, was never commensurate with the	A case of structural progress in economic terms more than in social terms.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	education (+14% in secondary school enrolment), and substantial advances in the people's access to ICT (+67% in ownership of personal computers), Internet penetration and enterprise creation (+202% in the number of new businesses in one particular year). These facts reveal an overall context of enhancements in productive capabilities.	performance of the sophisticated tourism industry. Acute geographical constraints make any diversification beyond the current specialization pattern (tourism, fisheries) difficult to bring to fruition.	spectacular progress that took place in the national income. This has much to do with the limited distributive impact on most families of the prosperous tourism industry.	Maldives is actively preparing for graduation on 1st January 2011, with a smooth transition strategy agreed upon or currently under negotiation with relevant development partners.
Mali	Substantial progress in the nation's access to and use of Internet, and significant advances in the sphere of education (+45% in secondary school enrolment; +108% in tertiary education enrolment) have paved the way for enhancing productive capabilities. The latter, however, will be fully recognizable when they lead to a new momentum of entrepreneurship.	The cotton industry was surpassed by gold as the leading foreign exchange earner over the decade. Among diversification avenues, tourism stands out as a significant potential factor of structural transformation.	Widespread progress in the area of primary education predisposes the nation to enjoy a fairer distribution of economic opportunities, a condition for equitable poverty reduction. This element of structural progress, however, implies further improvements in the economic specialization of the country, for example with successful tourism development.	An example of slow though consistent structural progress and progress --albeit in the long run-- toward graduation thresholds.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Mauritania	Substantial progress in ICT imports and Internet penetration (+215% in ownership of personal computers) augurs well for future economic capabilities. However, further progress in the educational status of the nation and business climate of the economy will be needed before substantial advances can be seen in the productive sphere.	The emergence of oil in the export structure of the country, and notable developments in the sphere of tourism delineate the overall positive transformation of the economy.	Durable and equitable poverty reduction will not be seen unless the progress in capabilities and specialization brings about a more diversified economy outside fisheries and minerals.	An example of the natural time lag between structural transformation and progress under the LDC criteria. Not a graduation case in the foreseeable future.
Mozambique	The structural progress observed in the economic specialization of the country does not seem to be explained by commensurate improvements in the area of human capabilities, despite an improved access to information and communication technology.	With aluminium and electricity production accounting for 55% of total exports of goods and services in 2008, and tourism standing out as the third largest economic sector, Mozambique demonstrates positive structural transformation.	With welfare improvements limited to child mortality and primary education, and a GNI per capita still under US $400, Mozambique does not yet enjoy much equitable poverty reduction. The visible structural improvements in terms of specialization nevertheless could ameliorate this landscape.	A country well below graduation borders despite commendable achievements through economic transformation, in a context of gradual structural progress.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Myanmar	Insufficient efforts in the area of education, despite the people's aspiration to emulate the rest of the region economically. Steady increases in Internet penetration appear to be the only element of progress toward enhanced capabilities. Translation of these into greater productive capacities implies an enabling economic environment, a condition still unfulfilled.	Slow progress toward more rewarding specialization, despite some advances in the textile industry.	No sound estimation possible in the absence of reliable data on the national income. Observed progress in the areas of child mortality and primary education prefigures elements of a poverty reduction pattern, but the extent to which geographical and social equity surrounds this progress is not presently measurable.	Limited structural progress. A "borderline" potential graduation case technically, though the interest of national authorities in fostering progress toward graduation or any other avenue of progress is unknown.
Nepal	Minor enhancements took place in the productive capabilities of the country, in a political environment that was not conducive to turning capabilities into benefits. The relatively lagging educational status of the nation makes further improvement in the economic specialization unlikely before the long term.	Improvements in the economic specialization of the country principally took place during 1990-2000. The diversification into textile activities was not overwhelmingly affected by the political instability that prevailed in recent years.	Available data point to a slow progress in the nation's welfare, in a climate of lasting low income per capita ($400 in 2008). Despite improvements in the field of child health and primary education, there remain scope for further structural progress in the form of equitable poverty reduction.	Evidence of structural economic progress over the decade can be found in the country's diversification records, yet not in the sphere of human capital or welfare. Graduation prospects exist but are subject to intensified efforts in human capital development.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Niger	With modest levels of progress under every relevant angle (from skill development to ICT penetration), the scope for enhanced capabilities remains limited to the few urban areas, unlikely to generate any structural transformation.	Limited diversification beyond the mineral sector (uranium and gold) and the livestock economy. However, one observes some growth in tourism, transport and communication services.	In a geographical environment so little conducive to economic density and employment creation, the scope for equitable poverty reduction is bound to remain limited.	No evidence of structural progress. An improving performance under the graduation threshold relevant to the economic vulnerability criterion, yet in a country that remains well below any graduation prospect.
Rwanda	Notable efforts in the field of education (+52% in secondary school enrolment), and spectacular progress in ICT imports (+160% over half the decade) prefigure enhanced productive capabilities and a progressive transformation of the economy in a not-too-distant future.	Structural transformation took place over the decade, with tourism now emerging as the largest gross foreign exchange earner, well above the traditional coffee and tea economy.	Progress in key parameters of the social equation such as maternal health and girls' education is paving the way for poverty reduction with equity, provided that the structural transformation of the economy continues. Meanwhile, such structural progress can be seen only sporadically.	A case of progressive structural transformation, though not yet a graduation case, considering the lasting gaps in per capita income and human assets.
Samoa	One of the most enviable examples, among LDCs, of a nation demonstrating improvements in human capital, yet not with commensurate rises along	A successful though relatively small tourism economy, and a stable, potentially improving economic specialization..	The most convincing example, among LDCs, of equitably distributed progress out of poverty.	Elements of structural progress are visible under various angles (human assets, poverty reduction). Despite the observed structural progress, the high vulnerability of the country makes the

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	global value chains. Steady advances in the people's access to, and use of, ICT prefigures further progress in competitive capabilities.			question of graduation a debatable issue, to which the General Assembly might consider bringing an answer in the wake of the 29 Sept. 2009 tsunami, which struck the country.
Sao Tome and Principe	Limited progress toward enhanced productive capabilities despite the people's more common access to ICT. The poor overall educational status of the nation still acts as an impediment.	Tourism is now the country's largest source of foreign exchange earnings, accounting for 42% of all export receipts (only 7% in 1985). Considering the decline observed in the cocoa and coffee economy and the social difficulties this economic substitution engenders (unemployment, increased poverty in rural areas…), whether this new landscape is one of improved specialization overall is debatable.	Unlikely poverty reduction and progress toward greater equity overall, given the decline of traditional crops (cocoa, coffee). Whether the advent of tourism (still with a small employment effect) as a new pillar of the economy is sustaining the nation's living standards remains to be seen.	Limited, if any structural progress. A performance already above the graduation threshold with regard to human assets, and in progress under the income threshold. The prospect of graduation is foreseen, albeit in a relatively distant future.
Senegal	Progress has been observed in all available indicators relevant to productive capabilities: enrolment in secondary school (+49%) and tertiary education	In less than two decades, tourism rose from third to first place among export sectors (19% of total foreign exchange earnings in 2008; fish products	The extent and quality of poverty reduction for the nation as a whole has not been commensurate with the structural progress observed in	Evidence of structural progress in terms of economic transformation (with a solid diversification landscape), yet with slow translation into improved welfare for the nation as a whole.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	(+57%); access to, and use of, ICT and Internet (+90%); enterprise creation.	= 10%). Senegal, now a multi-pillar economy, is a convincing example of improving specialization not only among African LDCs, but more generally among African economies.	terms of innovatory capacities and specialization. The undiminished contrasts between urban and rural areas make Senegal a lasting dual economy. However, there has been notable progress in the critical area of girls' education.	With a score now above the graduation threshold relevant to economic vulnerability, Senegal has returned to the (pre-2000) level of performance whereby it did not meet the three criteria for being added to the list of LDCs. Yet the country remains relatively far from emerging as a graduation case.
Sierra Leone	Absence of statistical or qualitative evidence of progress toward enhanced productive capabilities.	Minerals have never ceased to dominate the balance of payments, with diamonds, rutile and bauxite now accounting for 70% of total exports of goods and services. Whether this has translated in higher standards of living and structural progress for the nation is debatable.	Available data of relevance to poverty reduction over this (post-civil war) decade reveal a pattern of progress that is limited to lower child mortality and improved female education. This is an insufficient basis for recognizing structural progress.	No structural progress or progress toward graduation from LDC status.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Solomon Islands	Sustained improvement in the nation's capacity to achieve economic progress through the knowledge factor would have been difficult to achieve in the context of chronic civil unrest over the decade.	A primary economy that never evolved toward higher spheres of value added.	No evidence of equitable poverty reduction despite the rise above a US $1,000 GNI per capita. The geographical dispersion of the population across the archipelago results in a dual economy in which most people only remotely benefit from globalization forces.	No structural progress due to unrest in addition to structural handicaps. No graduation prospect in the nearest future.
Somalia	All aspects and factors of human capability as the engine of development were either destroyed or prevented from achieving any progress over the decade.	In the absence of any meaningful data other than some figures on cattle, goats and sheep, one assumes that the economy did not enjoy any positive structural change over the decade.	Total absence of progress toward a pattern of poverty reduction that would have been resting --even on a modest scale-- on productive capacities.	No structural progress. No graduation prospect in the nearest future.
Sudan	The advances observed in the access to, and use of ICT (+153% in relevant imports over half the decade) do not necessarily reflect enhanced productive capabilities in the absence of sufficient progress	With the oil industry now exceeding 90% of total exports of goods and services, and the rural economy staying remote from modernization, Sudan has undergone radical economic changes, but only toward	The increasing contrast between an urban economy fuelled by the oil trade and a periphery where structural progress never took place has been an insuperable obstacle to equitable poverty reduction	No structural progress other than potentially, as the natural wealth and rising financial base of the country prefigure a capacity to heighten investment in human capital and the physical infrastructure. A potential graduation case, within the next

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	in the field of education beyond primary level.	extreme specialization with few inter-sectoral linkages. An enviable financial situation, but hardly a model of structural progress.	for the nation as a whole.	decade, through the 2005 amendment to the graduation rule.
Tanzania	Evidence of progress in productive capabilities is found in records of the nation's increasing access to and use of ICT, and in the pace of enterprise creation. The economic diversification landscape already reflects the rise of the knowledge factor, an element of structural progress.	One of the most spectacular examples of improved specialization among LDCs, with tourism now standing out as the first gross foreign exchange earner (32% of total exports in 2008; only 4% in 1985).	The observed dynamics of poverty reduction with equity (albeit at a modest pace) is a consequence of the employment creation effect of diversification. The notable progress in girls' education is among synergetic factors in this context.	A striking example of lagging progress toward graduation despite elements of structural progress as evidenced by the improving specialization pattern. The country's score with regard to the economic vulnerability criterion has been above the graduation threshold since 2003.
Timor-Leste	Slow but consistent progress toward enhanced productive capabilities as a result of steady national efforts.	A coffee-dominated economy of which oil is expected to soon become the second pillar.	Significant progress in statistical terms (per capita income); questionable translation into poverty reduction for most people.	Though foreseeable, structural progress is not yet visible. The country is currently facing challenges linked to nation building.
Togo	Limited evidence of progress toward enhanced productive	Relegation of the agricultural sector (cotton, cocoa) to a	No evidence of poverty reduction or improved equity,	Limited, if any structural progress.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	capabilities, despite increases in the use of information and communication technology.	marginal role in the export economy has been a consequence of the rise of manufacturing and transport among foreign exchange earners. Overall a debatable case of improved specialization, given the remaining issue of food dependence.	as even primary education failed to demonstrate any betterment.	Not a graduation case in any foreseeable future, yet a country that is coming nearer to the graduation border relevant to the economic vulnerability criterion.
Tuvalu	The dynamics of improving capabilities and taking advantage of globalization forces is a goal beyond reach for the nation, as families fear sea level rise and strive for a daily fresh water supply.	An economy with a very narrow, nearly non-existent export basis and no intrinsic specialization, in which people live on a few rental income sources the nation has little control of.	Solidarity among and within families is the main answer to lasting poverty in the absence of any endemic structural progress.	No structural progress. An emblematic example of the fallacy of graduation, as the latter ought to imply a minimum extent of structural progress, a notion unknown in Tuvalu history although the UN's idea of a graduation of Tuvalu is pending.
Uganda	Evidence of enhanced productive capabilities and likelihood of continuation are supported by significant increases in the nation's education performance (+36% in secondary school enrolment), access to ICT,	The rise of tourism as the second largest export sector illustrates the improving specialization of the economy, and points to the beneficial farming-tourism linkage.	Steady though relatively slow progress toward more equitable income distribution. Notable improvements in girls' education reinforce the perception of social equity, a condition for structural progress.	Not a potential graduation case despite the evidence of key aspects of structural progress. The latter is still to translate into measurable socio-economic improvement.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
	Internet penetration, and enterprise creation propensity.			
Vanuatu	The extreme duality of the economy makes any assessment of capabilities difficult: the "knowledge factor" is present in the modern, urban economy, and lagging --if at all present-- in the rural areas, where a large majority of the population lives.	Improved specialization for 20% of the population (with a few successful service industries) and stagnation for the remaining 80% in rural areas throughout the islands.	The absence of nation-wide progress in key social indicators such as child mortality and primary and secondary school completion, in a national environment of sharp disparities between rural and urban areas, confirms the country's failure to demonstrate equitable poverty reduction to a meaningful extent.	A potential graduation case, but lagging structural progress.
Yemen	Performance in the following indicators reveals a measure of progress toward better productive capabilities: access to ICT; Internet penetration; enterprise creation. However, one notes the absence of commensurate improvements toward higher skills in the human capital of the nation.	With the oil and tourism industries now dominating the economy (81% and 9% of total exports, respectively), Yemen has gone well beyond its agricultural tradition. This improved specialization ought to eventually translate into greater well-being for the population.	The poverty reduction records one expected to see as a result of the mineral wealth of the country remains out of sight for a large part of the population, despite indications of progress in two essential social areas, namely, child health and female literacy.	Structural progress is only hypothetical, subject to what the natural wealth and growing financial base of the country will enable it to do. A potential graduation case in the long run, given the diversification of the economy.

49 LDCs *(1)*	Structural progress criterion 1: **Enhanced capabilities** *(2)*	Structural progress criterion 2: **Improved specialization** *(3)*	Structural progress criterion 3: **Equitable poverty reduction** *(4)*	Overall comment on structural progress (or lack thereof) and progress or non-progress toward graduation from LDC status *(5)*
Zambia	Though not yet a catalyst of structural transformation, the productive capability dimension is recognizable. It rests on four areas of improved performance: secondary school enrolment (+84%), access to ICT, Internet penetration, and enterprise creation.	The copper and cobalt specialization (78% of total exports of goods and services in 2008) was already the dominating feature of the economy in the late 1980s. Little structural transformation took place over the decade, as tourism development is still too modest to enhance the overall economic picture.	As in other mineral-dominated LDCs, the poverty reduction momentum, if at all existent, leaves aside a large part of the population.	A country not yet within the narrow circle of African nations with convincing signs of structural progress. Not a graduation case in any foreseeable future.

Source: UNCTAD, based on the following 29 indicators.

Enhanced capabilities *(column 2)*:

* Gross secondary school enrolment (%)
* Expenditure per student in tertiary education (% of GDP per capita)
* Gross tertiary school enrolment (%)
* Information and communication technology expenditure (% of GDP)
* ICT imports (% of total merchandise imports)
* Number of personal computers (per 100 people)
* Number of fixed and mobile telephone subscribers (per 100 people)
* Number of fixed broadband Internet subscribers (per 100 people)
* Number of Internet users (per 100 people)
* International Internet bandwidth (bits per person)
* Research and development expenditure (% of GDP)
* Number of technicians in research and development (per million people)
* Number of new businesses registered

* Total number of businesses registered

Improved specialization *(column 3)*:

* Evolution of export specialization by product or sector (goods and services) between 1990 and 2008

Equitable poverty reduction *(column 4)*:

* Births attended by skilled health staff (% of total)
* Rural population with access to improved water sources (% of rural population)
* Child (under 5) mortality rate (per 1,000)
* Trained teachers in primary education (% of total teachers)
* Number of primary school-age female children out of school
* Primary school completion rate (% of relevant age group)
* Girls' progression to secondary school (% of female primary school leavers)
* Girls' literacy rate (% of females aged 15-24)
* Gross national income per capita (World Bank Atlas method)
* Income share held by lowest 20%
* Poverty gap at national poverty line (%)
* Poverty headcount ratio at national poverty line (% of population)
* Unemployment rate (% of total labor force)

Progress or non-progress toward graduation *(column 5)*:

* Standardized scores of all LDCs under the three LDC graduation thresholds (1991-2009)

Note: the percentage growth rates included in the text refer to the period 2001-2010 or less depending on data availability.