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28

THE IMPACT OF THE GLOBAL ECONOMIC CRISIS ON INDUSTRIAL DEVELOPMENT OF LEAST DEVELOPED COUNTRIES

Report of the South Centre

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28

THE IMPACT OF THE GLOBAL ECONOMIC CRISIS ON INDUSTRIAL DEVELOPMENT OF LEAST DEVELOPED COUNTRIES

REPORT PREPARED BY THE SOUTH CENTRE

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THE SOUTH CENTRE

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ABOUT THIS REPORT

This paper is a report that the South Centre originally produced at the request of the United Nations Industrial Development Organisation (UNIDO). An earlier draft was distributed at a UNIDO Conference in December 2009. This Report is drawn heavily from a background paper on the same topic written by Dr. Mehdi Shafaeddin for the South Centre. Contributions for various sections were also made by Martin Khor and Aileen Kwa. Yılmaz Akyüz made valuable comments. Xuan Zhang provided research assistance including on some data used in the report.

ABSTRACT

This paper examines the impact of the external shocks from the global economic crisis on industrial development of Least Developed Countries (LDCs). These countries are heavily exposed to external shocks because of their extensive trade with the rest of the world. Yet, they are marginalized in terms of their share in international trade and output. They suffer from structural weaknesses and chronic balance-of-payments and fiscal deficits. They are heavily dependent on commodity exports and external financing. The commodity boom of 2003-08 allowed many of them to accelerate growth of their GDP and manufacturing value-added (MVA), but most of these benefits have been lost during the subsequent "bust" due to declines in export earnings, workers remittances and external sources of finance. They have seen significant declines in their GDP, MVA and investment in production capacity and sharp increases in unemployment due to closure of a number of factories.

These shocks came on top of the exposure of their manufacturing sector to severe external competitive pressures resulting, *inter alia,* from changes in the rules of the game in international competition. They thus increased the need to restructure and nurture their industries. Yet, their policy space has diminished due to pre-mature trade liberalization and "market oriented" strategies imposed on them by donors and the international financial institutions (IFIs). As a result, despite the acceleration of growth of their MVA during the boom years, most LDCs have experienced significant de-industrialization as compared with the situation prevailing in the early 1980s.

The global economic crisis is a wake-up call for LDCs to reconsider their long-term industrial and development strategies. There is no "one-size-fit-all" strategy. However, some common policy guidelines should apply to all and this paper makes proposals for industrial development along these lines. These countries still have some room to manoeuvre despite considerable loss of policy space. However, in order to avoid the risk of human tragedy, particularly in Sub-Saharan Africa, there is also a need for changes in WTO rules, a fundamental change of policies of IFIs towardsLDCs, and a basic reconsideration of the proposed Economic Partnership Agreements (EPAs).

TABLE OF CONTENTS

ACRONYMS

ACP	African, Caribbean and Pacific
AGOA	African Growth and Opportunities Act
CEMAC	Economic and Monetary Community of Central Africa
COMESA	Common Market for Eastern and Southern Africa
COU	Creation, Efficient Operation and Upgrading
EBA	Everything But Arms initiative
EC	European Commission
ECCAS	Economic Community of Central African States
ECOWAS	Economic Community of West African States
EPA	Economic Partnership Agreement
EPZ	Export Processing Zone
EU	European Union
FAO	Food Agriculture Organization
FDI	Foreign Direct Investment
FTA	Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
GNI	Gross National Income
HIPC	Heavily Indebted Poor Countries
IFI	International Financial Institution
IMF	International Monetary Fund
ITC	International Trade Centre
LIC	Low-Income Countries
LDC	Least Developed Country
MDRI	Multilateral Debt Relief Initiative
MFA	Multi-Fibre Arrangement
MRU	Mano River Union
MVA	Manufacturing Value Added
NIE	East Asian Newly Industrializing Economies
OECD	Organization for Economic Cooperation and Development
ODA	Official Development Aid
R&D	Research and development
SADC	Southern African Development Community
SAP	Structural Adjustment Programme
SDR	Special Drawing Rights
SME	Small and Medium-sized Enterprises
SP	Stabilization Programme
TNC	Transnational corporation
TRIP	Agreement on Trade Related Intellectual Property Rights
UAE	United Arab Emirates
UEMOA	West Africa Economic
UMA	Arab Maghreb Union
UNCTAD	United Nations Conference on Trade and Development
UNDESA	United Nations Department of Economic and Social Affairs
UNGA	United Nations General Assembly
UNIDO	United Nations Industrial Development Organisation
US	United States of America

WEO	World Economic Outlook
WTO	World Trade Organisation

EXECUTIVE SUMMARY

The recent global economic crisis has been unprecedented since the Great Depression of 1929-32. The LDCs have been severely affected. Although they are not a homogeneous group, they share some common characteristics which render them extremely vulnerable to external shocks. They are highly integrated into the world trading system but they are marginalized in international trade, particularly for manufactured products. They suffer from structural weaknesses, balance-of-payments and fiscal constraints, and they are mostly highly-indebted and dependent on the production and export of primary commodities and external sources of finance. The commodity boom of 2003-08 allowed most of them to increase their national savings and investment and to accelerate the growth of their GDP and MVA. Nevertheless, the subsequent "bust" has had serious detrimental impact not only on their current levels of economic activity and employment, but also on their longer-term prospects for industrialization and development.

Food and fuel importing LDCs suffered from both the "boom" and the "bust". The crisis emerged at a time when they were facing high international prices of food and petroleum. Although the prices of non-oil commodities and petroleum fell, from the peak to the trough, by over 36 per cent and 68 per cent, respectively, prices of commodities exported by such countries fell even further. Besides, food and fuel prices have picked up faster than other commodities after they reached their trough in December 2008.

Growth in LDCs as a whole is expected to have declined from 7.6 per cent in 2007 to under 3.5 per cent in 2009. African and Island countries and petroleum and mineral exporters are particularly affected, with negative growth in some cases. The demand for manufactures, in general, suffers not only from the fall in exports but also from changes in domestic demand as a result of the decline in the rate of growth of private consumption, which is projected to fall by 3 per cent in Sub-Saharan Africa − mostly in LDCs. The decline in workers' remittances is another important cause of the fall in domestic demand for manufactured goods in many LDCs. For example, for six African countries, remittances were equivalent to more than 100 per cent of their total exports. In 2008 workers' remittances as a percentage of GDP reached over 27 per cent in the case of Lesotho, and 18 per cent, 17.8 per cent and 11 per cent in the cases of Haiti, Nepal and Bangladesh, respectively. The decline in remittances is projected to reach over 3 per cent of GDP in some cases.

The deterioration in their balance of payments has resulted in tighter fiscal constraints and a reduction in financial resources available for investment, leading to cancellation of some projects and a significant drop in investment outlays. This has detrimental effects on the growth of production capacities. For example, the rate of growth of investment is projected to decline by over 12 per cent in Sub-Saharan Africa.

The combination of a fall in external and domestic demand together with the increased exposure of the manufacturing sector of LDCs to competitive pressures in internal and international markets has led to the closure of a number of factories in the manufacturing sector of LDCs in Asia and Africa, causing unemployment. The increased competitive pressure is the result of changes in the rules of the game regarding competition in international markets and premature trade liberalization in pursuit of "market oriented" development strategies imposed by IFIs and bilateral donors. Rapid technological change, emergence of global production networks, new methods of production, continued high agricultural subsidies in developed countries and the emergence of new players such as China as exporters of labour-intensive manufactures have increased the competitive pressure on the manufacturing sector in LDCs, particularly textiles and

clothing which account for over two-thirds of their manufactured exports. Such changes have increased the need to restructure and nurture the manufacturing sector. Yet, their policy space has diminished. As a result, despite acceleration of growth of their MVA during the boom years, most LDCs have seen de-industrialization compared to the early 1980s.

The global economic crisis is a wake-up call for LDCs to reconsider their long-term industrialization and development strategies. International assistance as well as reforms of policies of international organisations and donors are required. In the short term the space available to LDCs for counter-cyclical policies in response to the crisis is highly limited. Some selective import restrictions under the "balance of payments clause" of the World Trade Organization (WTO) and capital controls would be helpful, but not sufficient. International measures should be taken to assist the LDCs to address the crisis. These include provision of external liquidity, debt moratorium, debt relief and cancellation. But what is essential for the long-term development of LDCs is to increase their capacity to absorb external shocks and instability in export earnings without suffering a significant loss of growth. To do so, they need to diversify and upgrade their production and trade on the basis of a development and industrialization strategy than has so far been pursued.

For this, LDCs need considerable policy space. But this may be further constrained significantly by the Economic Partnership Agreements (EPAs) between many LDCs and the EU because the model proposed would eliminate most of their tariffs and introduce new obligations on investment and procurement that would also affect their domestic industries while restricting their ability to regulate the inflow and outflow of funds.

There is no "one-size-fit-for-all" development strategy for LDCs as they include diverse economies despite their common problems. Accordingly, some general guidelines are proposed, supplemented by specific policy proposals. First, the market alone is not the only tool of coordination of economic activities. There are roles both for the market and the government, and their relative importance tend to change in the course of industrialization and development. At early stages of development, public guidance takes precedence over markets, and for this the capacity of the government machinery for formulation and implementation of policies needs to be strengthened.

Secondly, countries with large populations have a better chance of pursuing independent trade and industrial policies than landlocked and smaller countries. Thus, the need for regional cooperation for industrialization holds greater importance for the latter countries. This may include industrial collaboration and production sharing and joint industrial policies. However, in both cases there is a need for a dynamic, flexible and targeted industrial policy based on the principle of dynamic, rather than static, comparative advantage.

Thirdly, the development of a competitive industrial structure also requires development of the agricultural sector - where feasible - in order to enhance the supply of food, particularly noting that international food prices may remain high in the future.

Fourthly, foreign direct investment (FDI) in general and in export processing zones (EPZs) in particular, should be managed, controlled and targeted in order to serve the objectives of industrialization and development of the home country. Control of capital flows in general should be a part of a long-term development strategy.

There are several constraints, imposed through the WTO rules, on implementation of the industrial policy proposed above, but LDCs still have some room to manoeuvre. They should,

however, resist further loss of policy space through the WTO and especially the EPAs. The International Financial Institutions should also reconsider their policies towards LDCs. The alternative is not only underdevelopment, but also the risk of human tragedy, particularly in sub-Saharan countries where the masses of people are facing extreme poverty, AIDS and malnutrition.

I. BACKGROUND

1. Introduction

The recent financial crisis has led to a widespread and severe crisis in the world economy, which has been unprecedented since the Great Depression started in the late 1920s. According to IMF estimates, world output grew by 5.2% in 2007 and 3.0% in 2008 but will decline by 1.1% in 2009. Growth in developed countries fell from 2.7% in 2007 to −3.4% in 2009, while in developing countries from 8.3% to 1.7% in the same period (IMF 2009e).

The decline in international trade is even steeper. According to the WTO, the volume of world merchandise trade grew by only 2 per cent in 2008 compared to 7 per cent in 2006-07 and will decline by 9 per cent in 2009 (WTO, 2009). The IMF has predicted an even steeper drop in 2009 of 11 per cent for the volume of merchandise trade and services and 14.6 per cent for their prices. The prices of non-fuel primary commodities, which are the main exports of LDCs, are predicted to decline by 27.9 per cent in 2009 as compared with 2008 (IMF, 2009c). According to OECD, during the first quarter of 2009 the volume of imports of the G7 industrialised countries, which are the main markets for LDCs, dropped by 16.8 per cent on a yearly basis (OECD, 2009).

While all countries have been affected by the crisis, the LDCs have been hit particularly hard because of their inherent weaknesses and limited capacity to absorb external shocks. They have been vulnerable and fragile due to their weak economic structure, close integration into the world economy, dependence on primary commodities and foreign financial flows and, in most cases, a high degree of indebtedness. Further, they faced external shocks resulting from the global recession at a time when most of them were suffering from the food and fuel crisis.

The manufacturing sector in LDCs is particularly fragile because of its infancy, de-industrialization resulting from the liberalization during recent decades, and the sector's lack of supply capacity and competitiveness in internal and international markets, where the rules of the game on competition have changed. Changes in the global economy - including globalisation, trade liberalisation, rapid technological change, new methods of production and the rise of emerging economies as major exporters of labour intensive products, have increased the competitive pressure on the manufacturing sector of LDCs. In particular, the clothing industry of LDCs, which accounts for over two-thirds of their exports of manufactured goods, has been hit hard by the liberalisation of this sector.

The commodity boom of 2003-08 provided LDCs with an opportunity to boost investment and enhance economic growth after decades of slow growth, marginalization in world trade and, in some cases, de-industrialization. The economic crisis, however, ended the commodity boom and halted the acceleration of growth and industrialisation. The crisis, however, also provides an opportunity for LDCs to reconsider their development strategies, the diversification of their economies and their trade and industrial policies in the light of the recent changes in the world economy. This consideration should also include the management of boom-bust cycles, including the fluctuations in commodity prices, and particularly the use of resources during expansions and contractions.

A major objective of this paper is to examine the effects of the global economic crisis on the industrial development prospects of LDCs. As data on the impact of the crisis on industrial sectors in LDCs are not readily available, the paper focuses on the mechanisms that transmit the

global crisis to LDCs and the effects on areas such as the financial sector, the balance of payments, debt, external financing and output.[1] These of course have a major effect on the industrial sector. The paper also examines the structural characteristics of the economy of LDCs, so as to put the effects of the crisis in context, and provides suggestions on international cooperation for support to LDCs, as well as policies that LDCs could consider in addressing the impact of the crisis in the short and long term. The rest of this section briefly reviews some aspects of the recent development experience of LDCs. Part II examines the structural weakness of LDCs and their vulnerability to external shocks. Part III describes the implications of changes in the global economy and new forms of competition for the industrialization prospects of LDCs. In Part IV, the mechanisms of transmission of the global financial and economic crisis to LDCs is analysed and an assessment is made of its possible impact on development and industrialization of these countries. Part V provides suggestions for international responses to assist LDCs to manage the crisis, and discusses the constraints and challenges they face, short-term and long-term strategies and policies required for the acceleration of industrialization.

2. Brief Review of LDCs' development experience

The LDCs as a group had a strong growth performance in 2002 to 2007. To a significant extent, the increasing prices of export commodities contributed to this growth. This heavy reliance on commodity exports was also a major factor that made the LDCs highly vulnerable to the global economic crisis. The dependence on the global economy which seemed to be a positive factor during the years of global boom is now once again being recognised as a weakness that exposes the LDCs in times of global slump to a vicious combination of falling demand for their exports, declining commodity prices, a downturn in inflow of workers' remittances and tourist revenues, reversal of capital flows and foreign direct investment and increased pressures on the balance of payments and external debt burden.

The crisis necessitates a rethinking of economic policy and development strategy. In the 1970s, it was common for LDC governments to make use of development planning and to play an active role in economic and social activities. However, since they were caught in a debt trap from the late-1970s and into the 1980s, policies in many LDCs have been shaped by loan conditionalities of the international financial institutions and the "Washington Consensus", in which the role of free markets was stressed and the role of the state was minimised. The IFIs' policy advice that the LDCs base their growth on expanding their exports including of commodities has been a main cause of their export dependence and their economic malaise since prices of commodities were on a downward trend until recent years when the trend turned upward again for the first time since the 1970s.

The structural adjustment policies advocated by the IFIs also led to sharp reductions in social spending, thus affecting the standards of health and education especially of the poor. The LDCs were also advised to undertake contractionary pro-cyclical macro-economic policies which prioritised inflation rate targeting and low fiscal deficits, while interest rates were usually maintained at high levels to attract private capital inflows. The role of the state was reduced to a minimum, being seen as providing support to the free market, and in particular to foreign investment, the attraction of which became one of the main priorities of economic policy. It is now widely recognised that the structural adjustment programmes were significantly responsible

[1] For the purposes of this paper, data on LDCs were collected and aggregated from available data bases, for example from UNCTAD and from the IMF's World Economic Outlook and its data base. Data on low-income countries (LICs), a category used by the IMF and World Bank, are sometimes drawn on to analyse the direction of change in key indicators. LICs include some countries that are not in the LDC category.

for lost development decades for many LDCs. Moreover, the policies did not lead to the growth of domestic business or industries. As stated in *The Least Developed Countries Report 2009* of UNCTAD, 'the reforms based on this (inflation rate targeting and private investment inducing) approach have largely failed to develop the private sector as the driving force of development.'[2]

Because of persistent economic stagnation of the LDCs (except for a period before the current crisis), their output and income gap with other countries widened dramatically in the past three decades (See Figure 1). In the early 1970s, the LDCs were not far behind the other developing countries whose GDP *per capita* then was 1.5 times that of the LDCs. By 2000, GDP per capita in other developing countries was six times higher. The *per capita* income gap between industrialised countries and other developing countries slightly increased from 14:1 in 1970 to 16:1 in 2000, while that between industrial countries and LDCs increased from 23:1 in 1970 to 96:1 in 2000 before narrowing slightly.

After continuous trade liberalization, privatization and minimization of government intervention since the 1980s, the economic development in LDCs has not improved as expected, and increasing signs of market failure have emerged. From 2000 to mid-2008, a continuous commodity price boom was a mixed blessing to LDCs as a group. LDCs that export commodities benefitted greatly from the higher export revenues. However many LDCs are net importers of petroleum and food. The sharp increase of prices of these products (especially between the 4th quarter of 2007 and the 2nd quarter of 2008) led to a severe food and fuel crisis for the import-dependent LDCs, which also faced additional pressures on their balance of payments.

Although extended debt relief under the Heavily Indebted Poor Countries Initiative (HIPC) and the Multilateral Debt Relief Initiative (MDRI) of the World Bank, and official development aid (ODA) have to some extent helped to cushion the crisis, these price surges have added millions of people to the ranks of the poor and hungry. The food crisis in 2008 has revived the awareness of both LDCs and the international community on the need to ensure food security and to promote rapid growth in domestic food production. However, policy makers in the developed countries as well as the IFIs have yet to recognise that the drastic liberalisation of food imports through tariff cuts by LDCs from the 1980s, under the influence of the IFIs, is a major cause of the reduction of food production in LDCs and their increased dependence on food imports.

Meanwhile, the LDCs have made only limited progress in industrial development in the past four decades. One major reason is that domestic industries were hindered and even damaged by the steep reductions of industrial tariffs, again in many cases under the influence of the IFIs.[3] UNCTAD has pointed out that: 'Even during periods of strong investment and growth, the manufacturing sector in many LDCs, particularly in sub- Saharan Africa, failed to take off.'[4] The difference in *per capita* MVA between the industrial countries and the LDCs expanded from 60:1 to 130:1 during 1970-1998.[5] In LDCs, the manufacturing sub-sectors are still comparatively weak; and there are rarely large domestic industries. A light manufacturing, labour-intensive

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2 UNCTAD (2009.a), p. VIII.

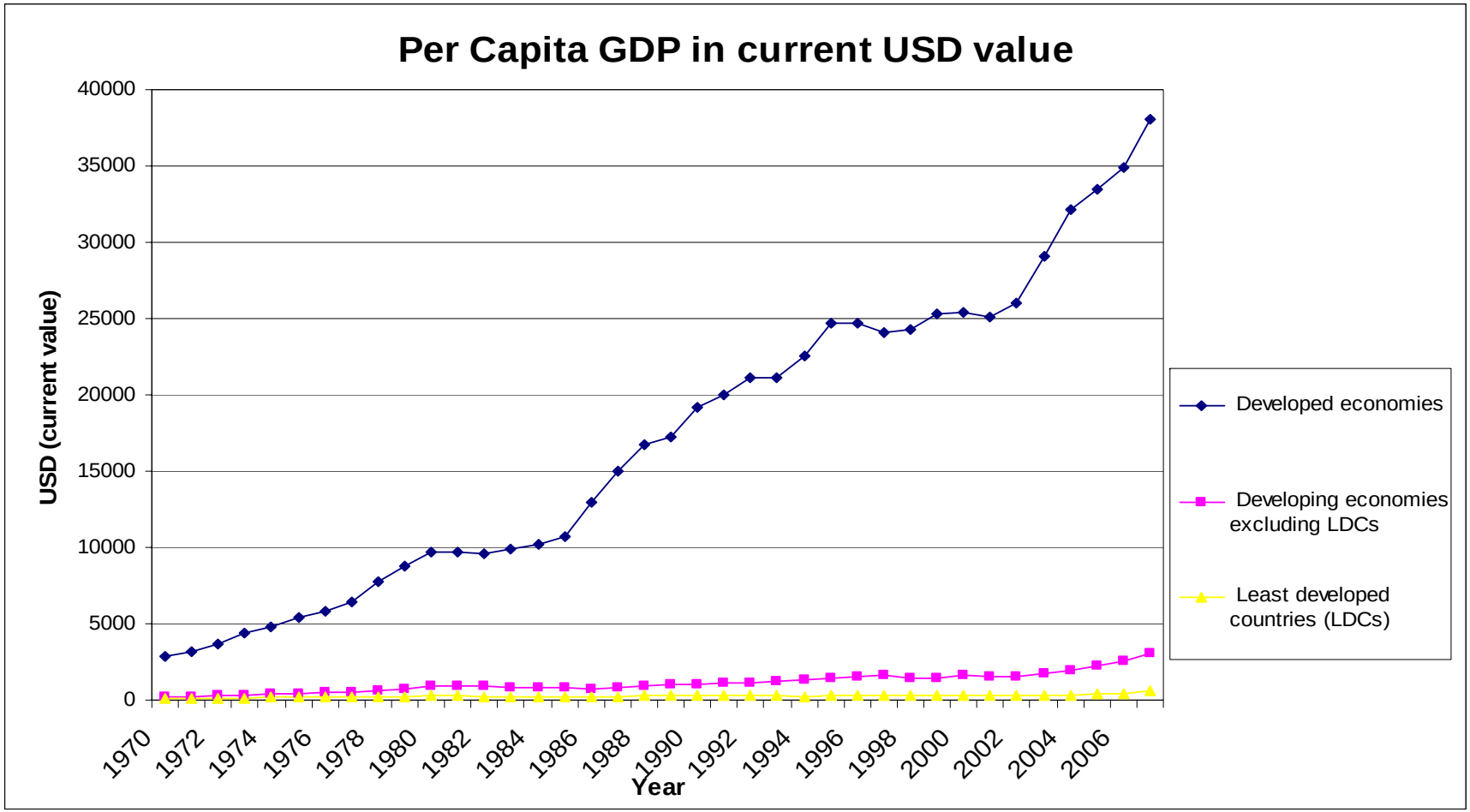
3 See Part II of this paper for more details of de-industrialisation of LDCs linked to import liberalization.

4 UNCTAD 2009a, p. XI.

5 Based on UNIDO data, See UNIDO (2001), Fig. 2, p. 5.

model is typical of the manufacturing sector in LDCs, while raw materials continue to dominate exports, as has been the case for many decades. The situation is reinforced by the fact that foreign direct investment (FDI) inflows are predominantly focused on the raw materials sector, while there has been little achievement in boosting the industrial productive capacity of LDCs, despite the preferential market access for LDC products (including the "Everything but Arms" scheme of the EU) and the Aid For Trade programme. The LDCs also face a range of non-tariff barriers on their products, as well as very high agricultural subsidies in developed countries, which deny them the ability to fulfil their export potential in products such as cotton. Thus, they remain marginalized in international trade, with their share of world exports falling from 12 per cent in 1960 to 0.6 per cent in 2005.

Figure 1: Nominal GDP *per capita by* country group, 1970-2008



Source: UNCTAD (2008.a)

II. STRUCTURAL FEATURES OF LDCS: THEIR FRAGILITY AND VULNERABILITY TO EXTERNAL SHOCKS

1. Main Features

Least developed countries are marginalized in international trade, particularly in manufactured goods. Their low weight in international trade, their structural weakness and heavy dependence on foreign trade and finance make them extremely vulnerable to external shocks. Their manufacturing sector is particularly vulnerable not only because of its infancy, but also because of its reliance on the primary sector for the provision of foreign exchange and sources of income. Through its supply effects the primary sector contributes to the supply of imported capital goods and intermediate products required for capacity expansion and utilization. Through its income effect, exports of primary commodities contribute to the generation of domestic demand for industrial products.

The combined population of least developed countries was 800 million people, i.e. over 12 per cent of world population in 2007. Yet, they account for less than 1 per cent of total world trade, and about 0.1 per cent and 0.3 per cent of the international trade and global output of manufactured goods in 2007, respectively.[6] They are not homogeneous in terms of the size of population, structure of production and exports, the degree of integration into the world economy, the degree of indebtedness, etc (**Table 1** below, and **Tables A.1** and **A.2**, annexed at the end**).** Nevertheless, they are all vulnerable to external shocks and have low capacities to take or manage associated risks. Such vulnerability stems mainly from their structure of production and income, the consequent low level of development and industrialization, and fiscal and balance of payments constraints.

6 Based on UNCTAD (2008.a) and UNIDO (2009), Tables 9.1 and 10.4.

Table 1:
Main characteristics of various groups of LDCs (2006)**

Exporting groups	No. of coun-tries	Popu-lation (million)	Manu-factur-ing/ GDP (%)	Exports (US$ millions)	Manu-factured exports/ total exports (%)	Exports / GDP (per cent)	Imports / GDP (per cent)	(Export - Imports) / GDP (per cent)	Accu-mulated debts/ GDP*	Debt service/ exports*
Petroleum & natural gas	8	197.1	5.94	58,894.3	5.55	41.64	32.86	8.78	43.83	5.75
Other Minerals	9	88.8	8.49	10,699.7	6.48	25.21	36.59	-11.38	66.57	9.09
Agriculture	10	107	8.48	4,408.9	10.11	25.81	44.90	-19.09	100.76	12.38
Manufactures	7	209.8	11.60	18,259	68.09	30.64	64.34	-33.69	44.05	5.95
Services	12	139.4	6.43	3,297	6.66	30.15	57.61	-27.45	85.82	8.97
Diversified	4	43.5	14.45	3,736	31.50	31.25	42.29	-11.04	54.20	8.23
All LDCs	50	785.6	9.23	99,294.9	21.40	30.78	46.43	-15.65	65.87	8.40

* 2005
** Figures are simple averages so they do not correspond to those of Table 17.
Source: Table A.1

The majority of LDCs show a low share of manufactured goods in their structure of production and exports; for 33 LDCs, the share of MVA in GDP is well below 10 per cent and for 29 countries the share of manufactured goods in total exports is also less than 10 per cent **(Tables 2 and 3).** In other words, they, particularly African LDCs, are highly dependent on production and export of primary commodities **(see Table 15).** Even in the case of the handful of countries which are referred to as "manufactures exporters", exports is concentrated in one or two labour intensive, low technology intensive items. For example, according to the latest available data, in Bangladesh, the largest exporter of manufactured goods among LDCs, textiles and clothing accounted for 44 per cent of MVA in 1995;[7] and for nearly 95 per cent of its exports of manufactured goods in 2006.[8] Similarly, the readily available data for 2003 indicate that exports of textiles and clothing constitute over 85 per cent, 84 per cent, 70 per cent, 51 per cent, 41 per cent, 32 per cent and 32 per cent of total exports of Cambodia, Haiti, Lesotho, Nepal, Laos, Madagascar and the Maldives, respectively.[9] Generally speaking textiles and clothing accounts for over 70 per cent of exports of manufactures from LDCs (UN, COMTRADE database).

7 World Bank (2009.b), Table 4.3.

8 Based on UNCTAD (2008,a), Tables 3.2.D and 3.1.

9 UNCTAD (2005), Table 5.

Table 2:
Share of MVA in GDP of LDCs (2005-06)

MVA/GDP (per cent)	Asia		Africa		All LDCs	
	No	per cent	No	per cent	No	per cent
Less than 5	5	38.5	8	23.5	13	27.7
5-10	5	38.5	15	44.1	20	42.6
10-15	-	-	7	20.6	7	14.9
15-20	2	15.4	4	11.8	6	12.8
20-21	1	7.6	-		1	2.1
Total	13	100	34	100	47	100

Source: Calculated by the author, based on UNCTAD (2008.b), Table 3.

Table 3:
Share of manufactured goods in exports of goods and services of LDCs (2003-05)

Range (per cent)	Number of countries	Cumulative
Less than 3	12	12
3-5	5	17
5-10	12	29
10-15	5	34
15-20	4	38
Greater than 20	9	47
Countries with their share greater than 20 per cent	Senegal (26.6), Samoa (36.9), Laos (32.4), Nepal (47.85), Bhutan (47.6), Lesotho (69.3), Cambodia (73), Haiti (70), Bangladesh (80.6)	

Source: Calculations based on UNCTAD (2008.b), Table B.
Note: Tuvalu and Togo are not included.

2. Fiscal and balance of payment constraints

The combination of a low level of development and rigid production structure imposes both fiscal and balance of payments constraints on most LDCs; in other words, (non-oil) primary commodities provide low and unstable sources of income and foreign exchange necessary for investment and industrialization. The average *per capita* income of LDCs in 2006 was US$462. But when oil exporting countries and Island countries are excluded the average reduces to $398 for African LDCs and $339 for Asian LDCs. Furthermore, in the same year, 23 countries (22 African and one Asian) out of 35 (excluding oil exporting countries and Islands) show *per capita* income of less than $266 a year.[10] At such a low level of income, when the household consumption (which is anyhow below subsistence level for many citizens) is deducted from *per capita* income, little is left for financing government expenditure for public administration, social services and investment as well as repayments of debts. For example, for 28 countries (18 of which are in Africa), the resulting figure is less than $100 *per capita* per year, and for 15 countries it is less than $50 a year.

Of course, such a low level of sources of finance available for public administration, investment and debt repayments is due to the low level of *per capita* income which is, in turn, a

[10] Calculated by the author based on UNCTAD (2009.a), Table 5.

reflection of the low productive capacity of LDCs. The low and inflexible productive capacity also causes the balance of payments constraint, with high current account deficits in relation to GDP **(Table 1)** because of the need to import investment goods, intermediate goods, fuels and such consumer items as foods. As is shown in Table 1, with the exception of oil exporting countries, all groups of LDCs, particularly manufacture exporting countries, show considerable balance of payments deficits in 2006, i.e. before the emergence of the financial crisis. Furthermore, the more integrated the country is in the international economy, in terms of the exports/GDP and imports/GDP ratios, particularly the latter, the higher the current account deficit. In other words, there is a direct relation between the degree of LDCs' integration into the world economy, influenced by premature trade liberalization (see below) and balance of payments constraints.

3. The food and fuel crisis preceded the global economic crisis

The food and fuel crisis contributed to the balance of payments constraints of many LDCs before the outbreak of the economic crisis. The available data indicate that already in 2002, in 21 LDCs (out of 32 shown) food and fuel imports were equivalent to over 50 per cent of their total merchandise exports; 11 of them spent the equivalent of 100 per cent of their exports on importing food and fuel.[11] Since then, food and fuel have absorbed increasing amounts of foreign exchange. For instance, in 2006, 36 of the 50 LDCs were net food importers; and the explosion of food prices had increased their food import bills by 2.4 times since 2000.[12] In 19 of the 36 countries, dependence on food imports was particularly heavy, absorbing 72 per cent of their total exports in the same year. They were also net importers of agricultural raw materials.

4. Dependence on external sources of finance

As a result of fiscal and balance of payments constraints, most LDCs, particularly non-oil exporting countries, have to rely heavily on external sources of finance for government expenditure, capital accumulation and imports **(Table 4).** As LDCs have little creditworthiness in the international capital market, they have to finance the current account deficits of their balance of payments by official flows, mainly foreign aid. For example during 2004-06, official flows (excluding debt relief and grants), FDI and private borrowing respectively accounted for 61.8 per cent, 35.3 per cent and 2.2 per cent of long-term capital flows to LDCs.[13] The African LDCs, in particular, were dependent on foreign aid for financing investment. In 2006, foreign aid accounted for over 17 per cent and 10 per cent of the GDP of African non-oil exporting LDCs and Asian LDCs, respectively. It was equivalent to about 90 per cent and 20 per cent of their investment outlays, respectively.[14]

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11 Karshenas (2009), Figure 10.

12 Based on UNCTAD (2008.b), Tables 10 and 30.

13 Based on UNCTAD (2008.b).

14 Karshenas (2008), Figures 20 and 21, based on World Bank, *World Development Indicators*.

Table 4:
External resource gap as a percentage of government expenditure and gross domestic investment in non-oil exporting LDCs

	Per cent of Govt. expenditure		Per cent of total investment	
	2000-04	2004-07	2000-04	2004-07
African LDCs	94.1	80.8	94.2	81.0
Asian LDCs [a]	32.1	39.8	29.3	35.5
Island LDCs	109.1	98.0	108.9	97.4

Source: Karshenas (2009: Table 4), based on World Bank, World Development Indicators
a: including Yemen, which is an oil exporting country.

Table 5:
Distribution of LDCs according to their degree of indebtedness and access to oceans

	Heavily indebted		Others (not heavily indebted)		**Total LDCs**	Memo: Total landlocked
	Total	Landlocked	Landlocked	Not landlocked		
Africa	**27**	10	**1**	**5**	**33**	11
Asia	**2**	2	**2**	**4**	**8**	4
Islands	2	-	-	**6**	8	-
Total	**31**	12	**3**	**15**	**49**	15

Source: Calculated by the author based on UNCTAD, 2008.a.
Note: Total LDCs is the sum of columns 1, 3 and 4

The inability to pay back debt increases vulnerability because obtaining further loans becomes increasingly difficult; accumulated debts accounted, on average, for nearly 66 per cent of GDP of LDCs in 2005. Thus the low level of development and shortage of financial resources are aggravated by the obligation of debt services which limits the availability of funds for investment and contributes to the high cost of investment, production and exports. As shown in **Table 5,** 31 countries (mostly African) out of 49 LDCs are among heavily indebted countries, of which 12 are also landlocked.

High interest rates, which reflect shortage of funds as well as high risks, contribute to high costs of production, particularly in the manufacturing sector which usually depends on fixed capital formation and variable capital more than other sectors. Out of 42 non-oil exporting LDCs, 27 are regarded as high interest rate countries by the World Bank **(Table 6).** High interest rate countries are those with real interest rates higher than 6 per cent and include various groups such as Island, Landlocked and Heavily indebted countries. However, the majority (16 out of 27) are among heavily indebted countries. Of the 10 landlocked high-interest countries, 7 are also heavily indebted.

The landlocked countries suffer, in addition, from the higher cost of transportation for their exports and imports, including imported inputs for the manufacturing sector. Imported and exported goods must pass through other countries, which themselves are mostly LDCs, particularly in Africa. Such a transport route involves other disadvantages for production and exports including the administrative burden, lack of control over the quality of infrastructure and

passage of cargoes, and unreliability of transit transport.[15] In fact, these constraints are, in turn, contributory factors to the lower *per capita* income of landlocked countries than their non-landlocked neighbouring countries.[16] Even though they may show higher trade/GDP ratios, they suffer from greater volatility in their output and exports[17] and thus higher risks in terms ofs production and investment.

Table 6:
Interest rates in different LDCs (2004-06).

Interest rates (per cent)	No. of countries	Countries in order of interest rate level
Higher than 20	2	Gambia (I, H), Haiti (I, H)
15-20 per cent H),	5	Laos (L), Sao Tome & Principe (I), Angola, Malawi (L, Central African Rep. (L, H)
10-15	5	Maldives (I), Mozambique (H), Uganda (L, H), CH), Vanuatu (I), Samoa (I)
Total	27	

Source: Based on UNCTAD (2009.b), Table 8; based on World Bank sources.

Low supply capacity is the main reason for low capacity for exports of manufactured goods. The commodity boom of 2003-08 provided an opportunity for the expansion of the supply capacity, but it was interrupted by the global economic crisis which led to a "bust" as discussed in section IV.

15 Serieux (2009), p. 5.

16 *Ibid*., pp. 5-6.

17 *Ibid*., p. 6.

III CHANGES IN THE GLOBAL ECONOMY AND NEWS FORMS OF COMPETITION: IMPLICATION FOR INDUSTRIALIZATION OF LDCS

The development of new methods of production and other changes in the global economy during recent decades have increased the competitive pressure on manufactured exports of LDCs. As a result, while the incentive for investment has been reduced, its risks have increased. Hence, the need for the provision of government support for industrialization in LDCs, particularly through trade and industrial policies, has increased. Yet the means to do so have been constrained due to the rapid trade liberalization and other conditions imposed on them by international financial institutions, through Structural Adjustment Policies (SAPs) and Stabilization Programmes (SPs), bilateral trade agreements and WTO rules. If the proposals made by the European Union (EU) to impose further liberalization measures through the Economic Partnership Agreements (EPAs) on African, Caribbean and Pacific (ACP) countries, most of which are least developed, are agreed upon, the industrialization and development of these countries will be further sacrificed.

1. New methods of production and competition

The possibility for entry of new firms of newcomer developing countries into the world market has become more complicated in recent years. On the one hand, trade liberalization through the Uruguay Round, the EU's Everything But Arms (EBA) initiative and the African Growth and Opportunity Act (AGOA) of the USA have provided new opportunities for exports by LDCs by improving their access to markets of developed countries. On the other hand, changes in the rules of the game for competition in international markets together with prevailing constraints on the expansion and upgrading of supply capacity put competitive pressure on LDCs. In particular, a few new developments have made entry of newcomer firms into international markets more difficult. These include: rapid technological change, increase in market concentration and dominance of transnational corporations (TNCs) in production and international trade, increases in the scale of production, distribution and research and development (R&D) in most industries, globalization, production sharing and development of other new methods of production and competition. Furthermore, the rise of emerging economies, particularly China as a massive exporter of labour intensive products, puts intense competitive pressure on LDCs in the international market for manufactured products of interest to them.

The increase in technology intensity of production and distribution and the rapid pace of technological change itself contributes to knowledge intensity and the need for a larger scale of production in most export activities in the manufacturing sector **(Arthur, 1996**). As a result, the process of learning and experience and the need for R&D are increased.

In fact, to reap economies of scale at the firm level, there has been a significant and unprecedented acceleration of mergers and acquisitions during recent decades, particularly after the start of this century, as is shown in **Table 7**. Furthermore, TNCs have specialized more and more in core products in order to benefit from scale economies both at the plant and firm levels. Instead of vertical integration within a country they have organized production sharing with other countries through their own subsidiaries or in cooperation with other firms. To provide some ideas about the scale of firms at the global level, in 2006, the total value of assets per company among the biggest 100 TNCs (ranked by value of foreign assets) ranged from US$50 billion to nearly $700 billion, as is shown in **Table 8**. Moreover, their foreign affiliates account for the bulk of assets and sales of many TNCs.

With the presence of TNCs', "creative destruction"[18] is a source of competitive process, competitive advantage and cumulative change. Competition does not take place on the cost of production alone and products are not homogeneous. The competitive advantage of TNCs also depends on their strategic behaviour in gaining, maintaining or improving their strategic position over time (**Porter, 1990; Best, 1990**).

Globalization and the development of new ways of organizing firms have led to new forms of competition, putting LDCs at a disadvantage. Globalization, here, refers to the development of global networking in the form of production sharing, international consortia, cross licensing agreements and joint ventures.[19] A global firm produces and sells in many nations in order to benefit from economies of scale. Moreover, it collaborates with other firms to share activities such as production facilities, marketing, distribution, input procurement, product development and design at the global level without necessarily investing abroad directly.[20] Despite their strategic alliance, however, collaborating firms also compete in the final market. In a world of increasing returns, the current behaviour of established firms affects not only the present, but also future, situation of newcomer firms in the same industry **(Young, 1928).**

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[18] An economic theory of innovation and progress. In *Capitalism, Socialism and Democracy*, Joseph Schumpeter popularized and used the term to describe the process of transformation that accompanies radical innovation. In Schumpeter's vision of capitalism, innovative entry by entrepreneurs was the force that sustained long-term economic growth, even as it destroyed the value of established companies that enjoyed some degree of monopoly power.

[19] Best (1990), p. 260.

[20] *Ibid.*, pp. 256-62.

Table 7:
Annual average cross-border mergers and acquisitions with value of more than $1 billion (1987-2007)

Period	No. of deals	Value ($ billion)
1987-96	29.3	60.7
1997-99	107	377.8
2000-04	127.6	438.2
2005	182	564.4
2006	215	711.2
2007	300	1,161

Source: Based on UNCTAD (2008.c), Table 1.2.

Table 8:
Assets and sales of non-financial TNCs in 2006

Rank[a]	Firm	Industry	Assets (US$ bn)		Sales (US$ bn)	
			Foreign	Total	Foreign	Total
1	General Electric	Electronic	442	697	74	163
10	Wal-Mart	Retail	110	151	77	344
25	Procter & Gamble	Diverse	64	138	44	76
50	Unilever	Diverse	34	48	45	49
75	Metro	Retail	23	42	41	75
100	Statoil ASA	Petroleum	18	50	16	66

Source: UNCTAD (2008.c), Table A.l.15
a: By foreign assets in 2006

In such a Schumpeterian world, the established large firms pursue an innovative strategy which relies on large fixed investment, knowledge, new technology, skilled labour and organizational capabilities and experience **(Lazonick, 1991).** Firms of LDCs do not have such privileges and capabilities, thus they need to follow "an adaptive strategy" by relying on low costs of production emanating from factor-cost advantages (cheap labour). As they are factor-driven, the firms of LDCs, particularly the newcomers, face less "productive uncertainty" (related to the internal operation of a firm). Nevertheless, they face more "competitive uncertainty" and hence risks, than the established firms of developed and developing countries which are their actual or potential rivals in the international market.

Flexible specialization is another form of new organization of firms for competition. In the globalization process, firms compete mainly on strategic behaviour and cost of production through production sharing and networking, economies of scale and mass production. In flexible specialization, the emphasis is placed on innovation and rapid adaptation to changes in the market. Here, firms compete mainly on differentiated products, speedy production and delivery

time and cost reduction through capacity utilization by employing multi-use equipment and skilled manpower. In flexible specialization, firms may also collaborate with each other through clustering (**UNIDO, 2008**), regional conglomeration, federated enterprises and technological alliance. While there are some differences between the two methods, there are also some similarities. Integration through globalization requires, *inter alia*, large amounts of capital, sophisticated technology and strategic planning. Flexible specialization requires sophisticated technology, highly skilled labour and strategic thinking. In both cases knowledge and experience are important due to the need for sophisticated technology, strategic action/thinking and/or high skills.

Hence, the process of learning can be prolonged and become more costly due to these new forms of competition in addition to other reasons mentioned above. Moreover, in both cases attempts for networking and collaboration usually take place among established firms. As a result of the combination of rapid technological change, increased scale of production, globalization, and the resultant rapid changes in the conditions of competition, the late-comer firms and countries are in a disadvantageous position for penetrating the international market in terms of cost, learning period, skill and organizational capabilities, the period of infancy, and the risk of success in the expansion of supply capacities. The contribution of FDI to capacity building is also limited by domestic capabilities (**section III.1**). Even when a newcomer enters the international market for some labour intensive products, with or without the assistance of TNCs, it will have serious constraints for upgrading its industrial structure, as indicated by the case of Bangladesh and other "manufactures exporting" LDCs.

The greater risks involved imply that newcomer firms should be provided with greater rewards than what would be provided by the market. Such rewards can be provided by the government by taking measures which increase the profit margin of infant firms through reduction in their costs or through increases in their revenue per unit of output. These measures may include a combination of investment in activities which provide external economies[21] to the manufacturing firms, as well as policies, particularly trade and industrial, which provide firms with incentives.

In practice, there are constraints to both. Investment in infrastructure, education and training, back-up services, R&D and technological development and provision of information on external markets, marketing channels etc. are examples of activities which provide externalities to the firms. Such investment, however, requires significant financial resources which are lacking in LDCs. More importantly, conditionalities imposed on LDCs through SAPs and SPs reduce government revenue from trade taxes and limit their public expenditures because of the pressure to limit budget deficits. The global economic crisis is an additional detrimental factor for government budgets. Similarly, the incentive to invest has decreased since the early 1980s due to the premature, universal and across-the-board trade liberalization imposed on LDCs through those programmes, or through the WTO or bilateral trade agreements. WTO rules have also imposed costs of compliance, putting further financial pressure on LDCs.

[21] External economies are the cost-saving benefits of locating near factors which are external to a firm, such as locally available skilled labour, training, and research and development facilities.

2. Costs of compliance with WTO rules

Least developed countries suffer from high costs of compliance with WTO rules, some of which also contribute to increasing the costs of production and upgrading their production structures. Such costs are related to their obligations under TRIPs (Agreement on Trade-Related Intellectual Property Rights) and other international agreements on intellectual property rights (for example, treaties in the World Intellectual Property Organization), which are sometimes aggravated by bilateral free trade agreements **(Smith, 2008).**

Whilst the LDCs have been granted a general waiver and do not have to implement TRIPS until 2013 (and the waiver for the pharmaceutical sector extends to 2016), many LDCs are nevertheless already implementing the agreement. This early implementation by LDCs is not surprising. Once an agreement becomes the agreed upon baseline in international law, the expectation by foreign investors and others are for countries to abide by this baseline as the minimum standard.

TRIPS restricts the application and transfer of technology to developing countries as it requires patents to be protected for a minimum of 20 years. The use of technology through licensing, even when awarded, involves high costs in the form of royalty payments. Technology for production of most light manufactured goods is embodied in capital equipment and is available through purchase of machinery. Nevertheless, the application of technology and penetration into international markets need knowledge and experience which are lacking in least developed countries. Moreover, the technology for the upgrading of the industrial structure is not freely available due to restrictions imposed by intellectual property rights. The implementation of a number of WTO agreements is highly costly and requires both physical and skills development. According to one estimate, the costs of implementation of "just three WTO Agreements [Customs Valuation, Sanitary & Phytosanitary Regulations and TRIPs] of the six Uruguay Round Agreements that involve restructuring of domestic regulations, come to about $150 million [in 2000 prices]….. [which] is more than the annual development budget for eight of twelve least developed countries for which we could find a figure for that part of the budget".[22]

In theory, a newcomer firm enjoys a lower cost of obtaining the necessary inputs and intermediate goods from the international market due to trade liberalization. In practice, however, this would depend on the availability of the foreign exchange which in turn would depend, *inter alia*, on the supply capabilities of the country for the expansion of exportables. This is negatively affected by premature liberalization, as explained later. But the risk of investment in the supply expansion for exports and upgrading has also increased because of the fierce competition, especially by China, in the international market.

3. The Economic Partnership Agreements

The European Union has been negotiating Economic Partnership Agreements (EPAs) which are essentially free trade agreements with 77 of the countries in the African, Caribbean and Pacific group (ACP). Of these, a large number are LDCs. 34 out of the 47 countries in Africa involved in the EPA negotiations are LDCs. So far, a number of LDCs have initialled but not signed the EPAs (e.g. Comoros, Zambia, Haiti, Burundi, Rwanda, Tanzania, and Uganda). However, two LDCs have

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22 Finger and Schuler (2000), p. 525. According to the ACP Secretariat, the operational costs of SPS alone "represent overheads of between 2 per cent and 10 per cent of the value of produce exported by the vast majority of ACP countries" **(CTA, 2003, p. 3).**

signed the EPA. These are Lesotho and Mozambique in the Southern African Development Community (SADC) region.

The LDCs generally do not obtain greater market access benefits from signing the EPAs since they already have 100% duty-free quota-free market access to the EU. However, many are still negotiating (e.g. the four LDCs in the East African Community and the 12 LDCs in West Africa) because of the pressures they are experiencing. Some are fearful of losing the aid they receive from the EU. Others are attempting to keep their regional customs unions intact. Most are grappling with both these factors. Given that their non-LDC neighbours are negotiating or signing EPAs to preserve their duty-free market access to the EU, LDCs have more often than not been pulled into these negotiations, usually reluctantly.

The EPAs pose grave implications in terms of LDCs' industrialisation prospects. The European Commission (EC) is arguing for 80% of countries' tariff lines to be cut to zero within about 15 years. This issue is still at the heart of the standoff in the negotiations between the EC and West Africa, with the latter arguing for liberalisation of 60 - 65% of their tariff lines.

Most countries have used a significant extent of their 20% of tariff lines where they can offer protection (their 'sensitive list') to cover agricultural products. In such cases, industrial products are thus only minimally shielded from complete liberalisation. Should more LDCs finally sign the EPAs, most tariff lines in the industrial sector will be brought down to zero, and this would make it difficult for these countries to develop domestic industries in these sectors.

In addition, once these zero tariff lines are scheduled, the schedules cannot be easily changed, and countries are bound by them. This is not in accordance with the needs of countries to adjust their trade policy as their industries develop. Early on in their industrialisation process, they may liberalise completely on medium or high technology goods, which they do not produce, in order to benefit from lower costs of production. However, when they have become more industrialised, these countries may want to have tariffs in these sectors so that they too can produce such goods. Such a dynamic trade policy is constrained under the EPA.

There are also other very problematic clauses within the proposed EPAs that will hamper countries' industrialisation prospects. They include the following:

(a) The Standstill Clause: All the EPA texts have variations of a standstill clause. According to this clause, no new customs duties shall be introduced on any tariff line, nor shall those already applied be increased in the trade between the parties as from the entry into force of the EPA. Some EPA texts allow for tariffs to be increased if these tariff lines are in the sensitive list.[23] However, most industrial products are targeted for complete liberalisation and the texts do not allow duties on the tariff lines that are to be liberalised, to be increased *during* the transition period of 15 years.

(b) Banning Export Taxes and Restrictions: Most of the EPA texts allow the continuation of export taxes on products already subjected to these taxes, but state that these taxes cannot be increased, and no new duties on exports are to be implemented. If countries need to have new duties, authorisation or consultation with the EC is necessary. Many countries use the export duty income to develop infrastructure and diversify the sector. Others use export duties and restrictions to ensure that local resources remain available for use by local industries.

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[23] The 'sensitive list' is the list of tariff lines where liberalisation does not take place.

Whilst the EPAs offer countries an infant industry clause, this protection is temporary. The Clause extends for about 15 years for LDCs. After this period, a process of consultation with the EC is required about whether or not to extend it. There are also limits to the usefulness of the Clause:

(i)As pointed by many ACP countries, even after 12 or 15 years, they will still have infant industries, and thus there should not be an expiry of the protection clause after 12 or 15 years.

(ii) The infant industry clause is written into the overall bilateral safeguard article in the EPA, and can be invoked when imports have caused or threatened to cause serious injury to the domestic industry. However, once the damage is done it might be too late to salvage the fledgling infant industry.

(iii) The safeguard action (raised duty or a tariff quota) has to be taken in consultation with the EC party. The party imposing the safeguard also has to supply the EC with all the relevant information for a thorough examination of the situation. This makes the safeguard difficult to use, especially for LDCs.

(iv) The safeguard that can be imposed is temporary (2 years, with the possibility of an additional 2 years), which is often an insufficient time for an infant industry in an LDC to become competitive.

The EPA model promoted by the EU also includes chapters on the so-called Singapore Issues (investment, competition and government procurement), which had been part of the Doha Work Programme. However, these had been removed following demands made by developing countries, including the LDCs, as they considered obligations on these issues to be detrimental to their development prospects. The EPA signed between the EU and CARIFORUM provides an indication of the type of provisions in the Singapore issues that may result from EPAs involving LDCs in Africa and the Pacific.[24] The provisions allow market access for EU firms in the areas of investment and government procurement that go far beyond the obligations of LDCs or other developing countries in the WTO, and also would seriously limit the ability of the LDCs to develop local enterprises or to regulate the flow of capital and the establishment of investments. For example, the proposed competition elements in the services chapters and the competition chapter could expand the advantages to the foreign enterprises at the expense of the local companies. Liberalising market access to foreign firms in government procurement access constrains the ability of governments to give preferences to local companies and is likely to reduce the opportunities of local industries to access the domestic market - an important market for their products. Thus the EPAs have serious implications on limiting the LDCs' use of policy options and instruments for development.

There are also specific ways in which the EPAs may worsen the condition of LDCs during the economic crisis or constrain them from taking policy measures to address the crisis. First, due to the crisis, many LDCs are already facing a deterioration of their trade balance, and rapid import liberalisation under the EPA would worsen the problem. Second, one key lesson of the crisis is that developing countries should take measures to reduce their exposure to financial instability and vulnerability. However, the EPA makes this more difficult by promoting greater financial liberalisation (including through financial services liberalisation and the provision on new financial instruments[25]) and by requiring the free inflow and outflow of funds. This is also not in line with the

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[24] See TWN (2008) for a detailed analysis of the EU-CARIFORUM EPA and Khor (2008) on the Singapore issues in FTAs.

[25] The EC-CARIFORUM EPA is the template used by the EU to negotiate EPAs with other ACP countries. Article 106 of the CARIFORUM EPA is on 'New Financial Services'. It says that Parties to the EPA 'shall permit a financial service supplier of the other Party to provide any new financial service of a type similar to those services that the EC Party and the Signatory CARIFORUM States permit their own financial service suppliers to provide under their domestic law in like circumstances…'.

current shift in the policy paradigm in favours of stricter financial regulation. Thirdly, due to elimination and reduction of tariffs, the LDCs will have reduced government revenue, which would add to severe pressures on the government budget due to fallouts from the crisis. Fourth, the crisis is leading to many countries considering a shift in development strategy from less reliance on exports to greater emphasis on domestic production and regional integration. A movement towards elimination of tariffs on European products due to the EPAs would constrain and complicate these measures towards greater reliance on domestic and regional markets.[26]

The EPAs are a major part of the new landscape of challenges in the global economy. LDCs signing on to the EPAs will face even greater difficulties in pursuing policies of industrialisation since any attempt to nurture domestic industries will be quickly destroyed by more competitive European imports via the EPAs. LDCs not signing on to the EPAs, but are part of customs unions with non-LDC countries which are EPA signatories will still be affected since imported EU products can easily flow into their porous regional borders. The EPAs therefore pose a real challenge to countries pursuing industrialisation strategies, as well as regional integration.

4. Policy conditionalities of the IFIs

The policy conditionalities that have accompanied loans from the international financial institutions have also affected the economic performance of LDCs. Part of the conditionalities are in trade. Developing countries, including LDCs, have had to significantly reduce their import duties, often to levels that are far below their bound rates in the WTO. Thus the LDCs have applied tariff rates that are significantly below the levels they are entitled to maintain as part of their WTO obligations. For many LDCs, this has contributed to the decline of their domestic agricultural sector, since cheaper imports have been able to capture an increasing share of the local market. Often these are imports of food products from developed countries that are heavily subsidised, such as poultry products and tomato products from the European countries and rice from the United States. IFI conditionalities have also included that the state withdraws or reduces its participation and intervention in agriculture, which resulted in withdrawal of fertiliser and machinery subsidies to farmers, the ending of guaranteed prices, the closure of marketing boards and government procurement schemes, and the reduction of government expenditure in agriculture generally. Ironically, in the same period, the developed countries (particularly the US and the EU) have maintained or increased their agricultural subsidies, enabling these countries to export products at artificially low prices, at levels that are often even below production costs. The combination of policies in LDCs that reduced or withdrew government support to agriculture, whilst simultaneously significantly reducing agricultural tariffs, have had a negative and sometimes devastating effect on agricultural production in many LDCs. This has resulted in a greater food trade deficit, with some LDCs changing from being net food exporters to net food importers.

The effects of IFI-related policies on the industrial sector in LDCs have also been adverse. According to UNCTAD, "big bang liberalisation" contributed to developing countries (excluding China) increasing their average trade deficit by 3 percentage points of GDP between the 1970s and 1990s, while the average economic growth rate was lower by 2 percentage points. Trade liberalisation sharply increased their import propensity but exports failed to keep pace.[27] Research into the effects of steep tariff reductions on local industries after import liberalisation in the 1980s in African countries shows large job losses in Senegal after the effective protection rate fell from 165 to 90 per cent in 1985-88 and one third of manufacturing jobs were lost by the early 1990s; in Cote d'Ivoire the chemical, textile and automobile assembly industries virtually collapsed after tariffs were

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[26] See Khor (2009) on the need for Africa to re-think the EPAs in light of the economic crisis.

[27] UNCTAD Trade and Development Report 1999.

lowered in 1986; in Nigeria capacity utilisation fell to 20-30% with harsh effects on jobs in the late 1980s; and in Sierra Leone, Zambia, Zaire, Uganda and Tanzania, the surge in imports had devastating effects on industrial output and jobs in the 1980s.[28]

The IMF's macroeconomic policies which are at the heart of the loan conditionalities have also usually been pro-cyclical, as they are characterised by tight fiscal and monetary policies with contractionary effects for the countries implementing them. Although the IMF has reported that its conditionalities have changed since the start of the present global economic crisis, a research paper in October 2009 which reviews the IMF policies in 41 borrowing countries (that have signed agreements including standby arrangements, poverty reduction and growth facilities and exogenous shocks facilities) since the start of the crisis revealed that in most cases the macroeconomic policy prescriptions are contractionary in nature.[29] Among the countries reviewed were several LDCs, including Burkina Faso, Burundi, Gambia, Malawi, Mali, Mozambique, Niger,. Senegal, Togo, and Zambia.

5. Trade liberalization and de-industrialization

i. De-industrialisation

As noted above, since the 1980s, many LDCs have been de-industrialized. LDCs are at the early stages of industrialization. One would expect, based on the experience of other countries **(Chenery and Syrqin, 1985),** that the share of MVA to their GDP should have increased during the last couple of decades. Several studies have shown that premature trade liberalization during the 1980s and early 1990s was accompanied by the de-industrialization of most LDCs **(Shafaeddin, 1995 and 1996**). For the following period, during which trade liberalization has intensified, de-industrialization also intensified. Taking the MVA/GDP ratio as an indicator of the degree of industrialization, **Table 9** indicates that on average the ratio declined between 1990 and 2006, influenced mainly by the performance of African LDCs. Moreover the average figure provided in **Table 9** for Asia is heavily influenced by the performance of Bangladesh, Cambodia and Laos. When these countries are excluded the ratio in Asian LDCs declines from 12.9 per cent in 1990 to 10 per cent in 2006.

Table 9:
Share of MVA in the GDP of LDCs[a] (1990-2006)

	LDCs				Other developing[b]	
Year	All	Asia	Africa[c] & Haiti[d]	Islands	All	Major exporters of manufactured goods
1990	10.5	12.1	9.7	6.1	22.5	25.6
2000	10.2	13.2	7.7	6.4	23.2	27.1
2006	9.8	13.8	7.5	6.4	24	28.5

Sources: Based on UNCTAD,2008.a, Table 8.3.2

[28] See Buffie (2000) for a listing of the effects of import liberalisation on local industries in Africa and Latin America, that resulted from trade policy conditionalities.

[29] Weisbrot (2009).

a: all variables are in current terms
b: Excludes LDCs
c: Note that the figure for African LDCs has fallen from 10.7 per cent in 1980.
d: Haiti is included with Africa as it is the only LDC in America.

Furthermore, de-industrialization seems more pronounced in countries which are at relatively early stages of industrialization. Thus 36 per cent of countries show a decrease in MVA/GDP ratios figure among those with MVA/GDP ratios of less than 10 per cent **(based on Table 9 and 10).** According to the same table, the corresponding figure for countries which show an increase in the ratio is 29 per cent. Meanwhile, out of 24 countries which do not show a decline two countries show no change (Eritrea and Sao Tomé and Principe) and 14 countries depict marginal changes of 0.1 per cent (Djibouti, Ethiopia, Gambia, Haiti and Madagascar), 0.2 per cent (Guinea and Togo), 0.3 per cent (Somalia and Sudan) and 0.6 per cent to 0.9 per cent (Uganda, Tanzania and the Yemen). Such small changes over more than a decade cannot be regarded as progress in industrialization.

Table 10:
Changes in the share of MVA in GDP of LDCs (1995-06)

MVA/GDP: per cent	Asia		Africa		All LDCs	
	Increased	Decreased	Increased	Decreased		
					Increased	Decreased
Less than 5	-	5	5	3	5	8
5-10	3	2	7	8	10	10
10-15	-	-	4	3	4	3
15-20	2	-	2	2	4	2
20-21	1	-	-	-	1	-
Total	6	7	18	16	24	23
Per cent in total No. for each region	46	54	53	47	51	49

Source: Calculations based on UNCTAD, 2008.b, Table 3

The increases in the MVA/GDP ratio cannot be necessarily attributed to trade liberalization either. Countries with noticeable increases in MVA/GDP include, in order of increase in the ratios, Cambodia (10.6 per cent), Equatorial Guinea (9.3 per cent) Mozambique (8.5 per cent), Liberia (8.1 per cent), Laos (5.4 per cent), Afghanistan (4.7 per cent), Myanmar (1.8 per cent), Bangladesh (1.5 per cent): with the exceptions of Equatorial Guinea and the last two countries, all the others are special cases which had suffered from low capacity utilization at the initial period due to war or internal conflict. Equatorial Guinea enjoyed expansion of oil revenues and the increases in the ratio for Bangladesh and Myanmar are small. In fact, if the ratios for 2006 are compared with those of 1980, it declined slightly in the case of Myanmar and remained the same for Bangladesh.[30]

Generally speaking, the degree of de-industrialization will be revealed further if one compares the MVA/GDP ratios for 2006 with 1980: 25 out of 40 countries for which data are readily available show declines in the ratios, and two cases show no change. Again, the

[30] UNCTAD (2008.b), Annex Table 5.

exceptional cases mentioned above figure in the list of countries where the ratio has gone up. The results of comparison with the 1970s will be even more dramatic.[31]

The decline in the MVA/GDP ratios in more recent years is partly statistical because of the increases in price of fuel and other primary commodities. Nevertheless, the increase in the price of primary commodities cannot explain the decline in the ratios entirely. Even during 1990s, when the prices of petroleum and other commodities showed a declining trend, the MVA/GDP ratios of LDCs declined.

ii. Trade liberalisation

While a number of factors, including structural weaknesses, may have contributed to de-industrialization, the influence of premature liberalization cannot be denied (**Shafaeddin, 2006.c**). During the last two decades, quantitative trade restrictions have been eliminated almost entirely or converted to tariffs and tariff levels have been reduced drastically. **Table 11** provides data on simple average tariff rates for a number of LDCs for which comparative data are readily available for 1987 and 2006. In all cases tariffs on imports of manufactures have been reduced drastically, with reduction rates ranging from 33.5 per cent to 83.2 per cent. Furthermore, in the majority of cases the reduction has been more pronounced for manufactures than for all imported products. All the countries shown in the table, with the exceptions of Bangladesh, Burkina and Sudan are among those whose MVA/GDP ratios had declined in 2006 as compared with 1980. In the case of Bangladesh it has not changed and in the other two cases it dropped during 1990-2006.[32]

iii. Changes in investment

De-industrialization during the last couple of decades has taken place despite the acceleration of growth of MVA and investment in more recent years, prompted mainly by the commodity boom. Trade liberalization and structural adjustment were accompanied by negative growth in investment and a sharp fall in investment/GDP ratios for LDCs as a whole during the 1980s. In 2006, the average I/GDP ratio for LDCs as a whole exceeded that of 1980, including in the case of African LDCs **(Table 12).** Nevertheless, for individual countries the ratios for 2006 were lower than those for 1980 in 15 out of 33 countries (or 30 countries when three oil exporters are excluded) in the case of African LDCs and 4 out of 13 cases in Asian LDCs **(Table 13).** Furthermore in all cases, the expansion of MVA and investment was interrupted by the global economic crisis.

In short, trade liberalization has not been accompanied by growth of the industrial sector in most LDCs. In fact, de-industrialization has occurred in many of these countries; and the recovery in MVA has been interrupted by the outbreak of the global economic crisis.

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[31] See also Sundaram and Arvin (2008), Table 7, and Shafaeddin (1995) for comparison with the 1970s.

[32] Based on Table 11 and UNCTAD (2008.b), Annex Table 5.

Table11:
Changes in average applied tariff rates of LDCs 1987-2006

Countries	Total			Manufactures		
	1987	2006	per cent reduction	1987[b]	2006	per cent reduction
Bangladesh	81.8	14.9	81.7	91.3	15.3	83.2
Burkina Faso	60.8	12.2	79.9	57.9	12	79.2
Sudan	56.6	17.4	69.2	56.4	18.4	67.3
Benin	37.4	13.4	64.1	38.3	12	68.7
Central African Republic	32	18.7	41.6	33	17.7[a]	46.3
Burundi	37	14.65	60.4	32.6	3.3	89.9
Tanzania	32.1	12.52	61	31.1	11.9	61.7
Zambia	29.9	14.59	51.2	29.1	13.2[a]	54.6
Sierra Leone	25.8	13.6	47.3	28[c]	13.1	53.2
Nepal	22.6	13.1	42	26.7[c]	12.5	53.1
Mozambique	15.6	12.69	18.7	15.3	11.7	23.5
Malawi	16.7	12.88	22.9	19.2	13.4	30.2
Dem. Rep. of Congo	22.4	12	46.4	22.3	11.9	45.4
Yemen	16.2	7.1	56.1	15.6	6.1	60.8
Uganda	19.9	12	39.6	17.9	11.9	33.5

a.2005 b. or the nearest year c: 1984-87

Sources: Calculations based on UNCTAD (1989), various country tables, and UNCTAD (2008.a), Table 4.3, UNCTAD (2008.b), and WTO, ITC, UNCTAD (2007)

Table 12: Indicators of investment 1980-2006

	Share in GDP (per cent)					Average annual growth rates			
	1980	1990	2000	2006	2007	1980s	1990s	2000-05	2006
Africa	19.3	15.3	18.6	21.2	20.3	-0.8	6.1	9.6	13.9
Asia	22.4	15.7	21.7	23.7	23.1	0.3	9.7	10.6	11.9
Island	30.3	33	22.8	32.5	30.67	3.8	3	9.9	13.1
Total	20.5	15.6	20	22.2	21.19	-0.4	7.5	10	13.0

Sources: UNCTAD (2008.a: Table 8.3.2; 2008.b: Table 6) and UNCTAD database

Table 13:
Changes in investment/GDP ratios over 1980-2006

	increased	decreased	total
Africa	18 (15)	15	33 (30)
Asia	9	4	13
Total	27	19	46 (43)
As per cent	58.7	41.3	100

Source: Based on UNCTAD, 2008b, Annex Table 6.

6. Changes in competition landscape from global trade development

The LDCs have also been facing increased competition in international trade as a result of some recent developments. Firstly, some LDCs have been hit hard by persistent and even expanding agricultural subsidies in developed countries, which have prevented LDC entry into the markets of the subsidising developed countries as well as into third markets. As noted earlier, these subsidies have also facilitated the entry of cheap imports into the LDCs' own markets.

The case of cotton has been highlighted by African countries, including LDCs, at the WTO's Doha negotiations, to demonstrate the unfairness of subsidies in the trading system. A paper by African countries (Benin, Burkina Faso, Chad and Mali) in May 2003 submitted at the WTO pointed out that the International Cotton Advisory Committee in July 2002 estimated that 74% of global cotton production required direct financial support from governments compared to 50% five years previously, and that cotton support mainly by the US and EU was $6 billion in 2001/02, which corresponds to all global cotton exports that year. The subsidies to US cotton producers were 60% higher than the GDP of Burkina Faso where over 2 million people depend on cotton production. Half the cotton subsidies to American producers (around $1 billion) goes to a few thousand farmers who cultivate around 1,000 acres each, while in contrast in West and Central African countries, these subsidies penalise one million farmers who each have an average of five acres of cotton and live on less than $1 per person per day. The paper estimates that the West and Central African countries lost $250 million in export earnings forgone due to the subsidies (WTO 2003).

During this crisis, the level of cotton subsidies by developed countries has increased significantly.[33] According to the World Bank's trade director, global support to the cotton sector more than doubled in 2008-09 to $5.9 billion compared to $2.7 billion in 2007-08. The share of global cotton production receiving subsidies increased from an average of 55% during 1997-2008 to 84% in 2008-09. The demand by the African cotton producing countries that there be an early phasing out of cotton subsidies has so far not been met.

Secondly, LDCs have also faced increased competition from other developing countries because of trade liberalisation, including the phasing out of the Multi-Fibre Agreement, which resulted in liberalised trade in textiles and clothing, the main manufactured products exported by LDCs. The rise of countries such as China, Korea, South-East Asian countries, India, Brazil and South Africa has made it more difficult for LDCs to maintain their share of the export market.

As an example, the emergence of China has intensified competition in the international market for manufactured goods including labour intensive products, which are of interest to LDCs. In 2006, the exports of manufactured goods from China (including Hong Kong) were over 57 times greater than exports of these goods from LDCs as a whole. China's exports of manufactured goods expanded at an annual average rate of over 26 per cent during 2000-06. Light manufactured goods, which are mainly labour intensive, account for nearly 44 per cent of exports of manufactured goods of China, and the pace of Chinese exports in these products also accelerated sharply during 2000-06. China's exports of textiles and clothing have particularly accelerated during recent years due to the removal of quota restrictions through the Multi Fibre Arrangement: between 2000 and 2008, the country's textile exports rose from $17 to $67 billion while its clothing exports rose from $36 to $120 billion. As domestic companies in China have also developed their capabilities in a number of more technology-intensive products, the LDCs can also expect to face competition from these firms when they themselves attempt to upgrade their structure of exports. The risk for LDCs to invest in activities related to higher technology products has increased, yet their policy space to cover the risks has decreased due to premature trade liberalisation.

IV THE TRANSMISSIONS AND EFFECTS OF THE GLOBAL ECONOMIC CRISIS TO LDCS

1. Transmission mechanisms

The description of the features of the LDC economies in previous sections enables a better understanding of the effects on them of the global financial and economic crisis. This crisis has been transmitted to the LDCs through several mechanisms. The direct transmission of the financial crisis to LDCs has been limited as they have not been exposed to sub-prime mortgage loans and the associated derivatives that were at the source of the crisis, and they are not closely integrated into the world financial markets.[34] The main financial effects are through the reduced availability and increased cost of trade financing, reduced financial flows and increased difficulties in debt services.

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[33] Zarocostas, J. (2009).

[34] The share of banking assets held by foreign banks (owned mainly by developed countries) is very high in some countries ranging, for example, from 53 per cent in the case of Angola to 100 per cent in the cases of Madagascar, Mozambique and Swaziland. Nevertheless, the financial meltdown suffered by the parent banks was not transmitted to their subsidiaries in these countries (**AfDB, 2009 .a, pp. 2-4**).

However, as the financial crisis which started in 2007 in the USA led to the global economic crisis, LDCs, like other developing countries, have been affected after a time lag. Its transmission to the economies of LDCs in general and their manufacturing sector in particular, has taken place basically through the real sector.

The recent global economic crisis, when seen in conjunction with the other aforementioned factors, has implications for the industrialization of LDCs beyond temporary losses because of its negative impact on investment and productive capacity, particularly in the manufacturing sector. The impact is not exactly the same on all LDCs as they have different characteristics, as outlined above. For example, on the basis of information provided by the IMF, landlocked countries are on average more vulnerable than other comparable low-income countries (LICs) to external factors such as trade, FDI, aid and remittances. Generally speaking, there are both direct and indirect effects on the industrial development of these countries. They constrain the industrialization and development of LDCs mainly through the balance of payments and fiscal effects. The loss of exports is an obvious direct impact on the manufacturing sector. One indirect effect is the loss of domestic demand as a result of the loss in GDP. Another is the impact on the supply of manufactured goods and particularly on investment for the development of future supply capacities.

The fall in commodity prices and export volumes, workers' remittances and financial flows lead on the one hand to a fall, *inter alia*, in government revenue and expenditure, employment and GNI, and thus domestic demand. On the other hand, they reduce the availability of the financial resources and foreign exchange necessary for investment in productive capacity and for imports of intermediate products required for the utilization of existing capacity.

The impact on the supply of industrial goods and investment does not stop there. The fall in exports and financial flows necessitates devaluation of the exchange rate, which tend to increase the costs of production and capital goods necessary for investment. The increase in the cost of servicing foreign debts (in terms of local currency) due to devaluation would limit resources available for investment in physical production capacity, education and human capital formation. Even the available resources may not be allocated to productive investment by the private sector due to the increased risks and uncertainties created by external shocks. Decision-making for investment by the private investors will be also affected negatively by uncertainties related to the impact of further trade liberalization through the EPAs. The reduction in foreign aid and the increased cost of borrowing will be two other detrimental factors.

Although comprehensive data on transmission of the global crisis on LDCs are not readily available, there are some indications for the severity of the impact. The following is an account of the effects of the crisis through various channels of transmission on the LDCs.

2. Effects on Trade financing

The impacts on the global crisis on the financial sector have been mainly in trade financing, in increased stress on banks in many LDCs and in reduced financing for SMEs.

The reduced availability and increased cost of trade financing affect production and trade negatively through their impact on foreign trade, particularly imports (including imports of intermediate goods). Opening letters of credit by African banks has been affected negatively by problems of matching lines of credit in larger international banks, which restricted their credit facilities. Although there is no readily available information on the extent of the credit squeeze, there are indications that obtaining trade financing facilities has become more difficult for LDCs.

For example a survey of 26 financial institutions involved in trade financing in Africa indicated that "the global crisis was hindering activity in their local markets**" (AfDB, 2009.b).**

The manufacturing sector can be expected to suffer from problems of trade financing more than the primary sector, for three main reasons. First, the manufacturing sector depends on imported inputs more than the primary sector and most of the requirements for trade financing originate from importers. Second, the international banks have reduced the volume of credit lines for trade financing, particularly for exports to LDCs where greater risk is involved (AfDB, 2009.c). Third, the international trade in primary commodities is usually more dominated by TNCs than manufacturing products. TNCs rely more on their own financial resources than other trading firms. In fact, the increase in the risk premium increased the cost of trade financing in Africa.[35] The spread of the JP Morgan Emerging Countries Equity Index reached its highest level since 2002, increasing by 800 basis points in October 2008.[36]

3. Stress in banking sector, reductions in bank lending and financing for SMEs

Although the banking sector was not directly affected by the global financial crisis because of the limited integration of the LDCs into the global financial markets and institutions, the banks in LDCs have come under increased stress arising from the weakening of the real economy. In African countries, the decline in the real economy has adversely affected banks in several ways, according to a World Bank study.[37] Firstly, an increase in non-performing loans; secondly, tightening of liquidity due to reduced trade credit flows; thirdly withdrawal of liquidity from local subsidiaries of foreign banks to provide capital to headquarters; and fourth the contagion risk from regional banks. The World Bank provides the example of Zambia, whose banking system, although stable and well capitalised, faces significant risk because of exposure to the decline in copper prices, and because the international banks' subsidiaries have a high share of the banking system. Thus, as access to offshore funds through parent banks dries up, some locally operated banks may have their credit expansion plans restricted.[38]

According to a study commissioned by UNCTAD in 2009, the crisis has substantially weakened the banking system in a number of LICs. The study found that during the period after the crisis began, there was an increase in financial leverage (measured as total liabilities divided by total equity). Also the total bank capital ratios of most countries have decreased in the crisis period compared to the pre-crisis period. If the global crisis continues beyond 2010, the risk of bank failures in some developing countries would increase, adding pressure to their already strained budgetary positions as the governments may be obliged to rescue some of the banks.[39]

Due to their own difficulties such as increases in non performing loans and lower profits, many banks have tightened credit conditions, and in almost all LICs, bank credit to the private sector slowed sharply in the first half of 2009 (IMF 2009c). The liquidity squeeze is affecting

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35 AfDB (2009.a), p. 5.

36 *Ibid.*

37 World Bank 2009a, p 6

38 World Bank 2009a, p6

39 This study is referred to in UNCTAD 2009c.

small and medium sized enterprises (SMEs) in LDCs.[40] Microfinance institutions, which mainly fund SMEs, had a remarkable growth in assets by 51% in 2007 before the crisis, but they are now facing stress as more than half of the institutions have reported liquidity constraints and two-thirds expect increased liquidity pressures. Deteriorating loan portfolio quality is widespread, with 68% reporting increases in portfolio-at-risk. According to the World Bank, SMEs are increasingly squeezed as banks become more risk averse. Meanwhile SMEs in LICs are also facing substantial delays in receiving payment on invoices from retailers in OECD countries, which has put financial pressure on their operations. A World Bank study in early 2009 of 60 global buyers and suppliers showed that 40% of companies suffered from delays or cancellation of foreign sales due to a drop in new orders and 30% had difficulties obtaining trade finance, resulting in falling sales. SMEs especially in LICs reported being crowded out from trade finance by larger firms, and three fifths of managers surveyed indicated their clients had problems with loan repayment.

4. Impact through foreign trade

As LDCs are highly integrated into the world trade, as indicated by relatively high values of exports/GDP and imports/GDP ratios **(Table 14 and Table 14. a),** trade shocks from the global economic crisis would have serious implications for economic activity through their impact on balance of payments. A reduction in exports not only directly influences the GDP through its income effects, but also indirectly through its supply effect as export revenue provides means of importing products from abroad which cannot be produced domestically. Such products consist not only of consumer items, but also intermediate goods and capital equipment necessary for the operation and expansion of production capacities, including capacity in the industrial sector.

An indication of the severity of the impact of the crisis on exports of LICs can be seen in the following figures. The merchandise exports of LICs began falling in October 2008, while exports of services (mainly tourism) also declined; overall the exports of goods and services are estimated to have declined by 16% in 2009. (IMF 2009b, p 10). For 15 LICs in Africa, the exports of goods and services as a percentage of GDP fell from 24.8% in 2007 to 24.2% in 2008 and to an estimated 21.8% in 2009.[41] There was thus a loss of 3 percentage points of GNP on average in these countries. Among the worst affected are Mozambique (whose exports fell from 37.8% of GDP to 27.9% of GDP between 2007 and 2009) and Zambia (from 41.9 to 31.9% of GDP in the same years). For sub-Saharan Africa as a whole, the export fall was from 41% of GDP in 2008 to 31.2% of GDP in 2009.

5. Commodity prices

As mentioned earlier, most LDCs depend heavily on the production and export of primary commodities (**Table 15 and A1**). Thus a fall in international commodity prices is an important channel of transmission of the shock created by the global economic crisis. Nevertheless, while LDCs as a whole are net exporters of primary commodities, they are not net exporters of all individual commodities. They are net exporters of agricultural raw materials, minerals and fuel but net importers of food. At the country level, each country exports certain commodities and at the same time imports some others. For example, all petroleum and natural gas exporters, with the exception of Myanmar; all mineral exporters, with the exception of Zambia and Mauritania; and all exporters of agricultural raw materials, with the exception of Uganda and Malawi, are

[40] The information here on SME difficulties is from World Bank 2009a, p8-9

[41] IMF 2009d, p76. The 15 countries are Benin, Burkina Faso, Ghana, Kenya, Madagascar, Malawi, Mali, Mozambique, Niger, Rwanda, Senegal, Tanzania, Uganda and Zambia.

importers of food.[42] All together, 36 countries are net importers of food products. Except 8 countries exporting petroleum and natural gas (Table A.1), they are all net importers of fuel.

Hence, changes in the price of various commodities affect different countries differently during the boom and bust periods. To gauge the impact of changes in commodity prices on LDCs, ideally one needs to look into the effects of changes in export prices and import prices of individual commodities and to net them out. Nevertheless, such an estimation is cumbersome and a more practical approach would be to trace the net effect of commodity price changes in the balance of payments, as will be done below after first discussing the changes in commodity prices.

International commodity prices are demand-determined; changes in demand for commodities are reflected mainly in price rather than volume. The 2003-08 boom in commodity prices "has been the most marked of the past century in its magnitude, duration, and the number of commodity groups whose prices have increased".[43] This was, however, followed by a "bust" which has also been the most serious during the last four decades.[44]

Table 14
Trade/GDP and balance of payments/GDP ratios of LDCs and other developing countries (2006), in percentages

Group	Exports/ GDP	Imports/ GDP	Exports + imports)/ GDP	Exports - imports/ GDP
Non-oil exporting LDCs:				
Landlocked	21.2	43.7	64.9	-22.5
All	8.1	49.4	77.5	-21.3
Oil exporting LDCs	41.6	42.6	84.2	-1
All LDCs	30.8	46.4	77.2	-15.6
Developing countries exc. LDCs	44.3	38.6	82.9	+6.3
Oil exporting developing countries	56.1	32.6	88.7	+23.5

Source: Based on Table A.1 Note. Figures are simple averages

[42] For the list of countries, see Table A.1 (in Annex).

[43] World Bank (2009), p.3 and Chart 1.a.

[44] IMF (2009.b), p. 46, Table 1.2.

Table 14 a:
Trade /GDP ratios for various groups of LDCs (2006), in percentages

Regions	Exports	Imports	Total	Change in total (1990-2006)
Africa	38.2	36.2	74	23.7
Asia	27.4	37	64.7	42.6
Islands	45.5	68.4	110.3	0.6
All LDCs	34.7	36.8	71.5	29
Dev. Countries exc. LDCs	44.4	38.6	83	29.1

Source: Based on UNCTAD (2008.a)
Note: The data do not correspondent with Table 17, which is based on simple averages.

Table 15
Structure of merchandise exports of LDCs, as percentages of total (2005-06)

Country Group	Fuel	Other Primary	Total Primary	Manufactured	
				Total	of which light
Africa	63.7	27.9	91.6	8	7.3
Asia	28.4	15.7	44.1	55.3	53
All LDCs	52.7	24.3	77.0	22.4	20

Sources: Based on UNCTAD (2008.b), Tables 8 and 9

The boom

The commodity boom of 2003-08 **(Table 16, Figure 2 ans Figure 3)** facilitated the acceleration of growth of GDP and the supply capacity for production of manufactured goods of LDCs by providing foreign exchange and resources for investment. This is particularly true for petroleum and mineral exporters since the prices of these commodities increased a lot more than the price of their main commodity imports − food. As is shown in **Table 17,** during 2000-06, LDCs could in fact catch up with other developing countries in their rate of growth of MVA. During this period, LDCs managed to utilize their commodity windfall better than on previous occasions. Their performance in investment was impressive in 2006, for which data is available, as compared with 2000-02. The boom provided an impetus for the acceleration of investment by increasing savings and reducing the resource gap (**Table 18**).

Table 16
Changes in commodity prices (Percentage)

Commodities	1990-2000	2002 to the monthly peak in 2008*	Monthly peak to monthly trough*
Mineral ores and metals	-21.3	+351.4	-50.7
Vegetable oils and oilseeds	-6.6	+217.4	-53.1
Agricultural raw materials	-23.2	+144.1	-41.4
Food	-20.3	+157.3	-27.7
Tropical beverages	-7.1	+117.5	-20.7
Total non-oil	-19.5	+148.9	-36.3
Petroleum	+28.0	+287.0	-68.7

Sources: UNCTAD **(2008.a),** Table 6.1 and Commodity Price Bulletin online. Note that the data here are expressed as price indices rather than raw prices.

* For commodities as a whole and for minerals the peak was April 2008 and for the rest it was June 2008. The monthly trough was February 2009 for the whole basket and for minerals, March 2009 for agricultural raw materials and December 2008 for the rest. The related figures for 2002 are yearly averages.

Table 17:
Average annual growth rates of GDP and MVA of LDCs (1980-2007)

Country Groups	1980-90	1990-2000	2000-2006	2007
Africa & Haiti	1.9	3.4	6.4	8.6
Asia	2.9	5.1	6.8	6.2
Islands	4.4	4.3	4.0	5.0
Total LDCs	2.2	4.0	6.5	7.6
MVA:				
Africa& Haiti	1.9	2.4	6.8	7.8
Asia	2.9	6.6	8.0	4.1
Islands	5.7	4.0	2.1	5.7
Total LDCs	4.2	4.2	7.4	5.9
Other developing	5.2	6.8	7.4	8.3

Sources: UNCTAD *Handbook of Statistics* various issues, UNCTAD (20008.b) and IMF *World Economic Outlook*, 2009.

Table 18:
Savings and investment to GDP ratios (per cent) and resource gaps of LDCs (2000-06)

	2000-02	2006
Gross Domestic Savings (S)	12.8	20.7
Gross capital formation (I)	19.8	22.2
Resource gap (S-I)	-7	-1.6

Source: Based on UNCTAD (2008.b), Table 3.

The bust

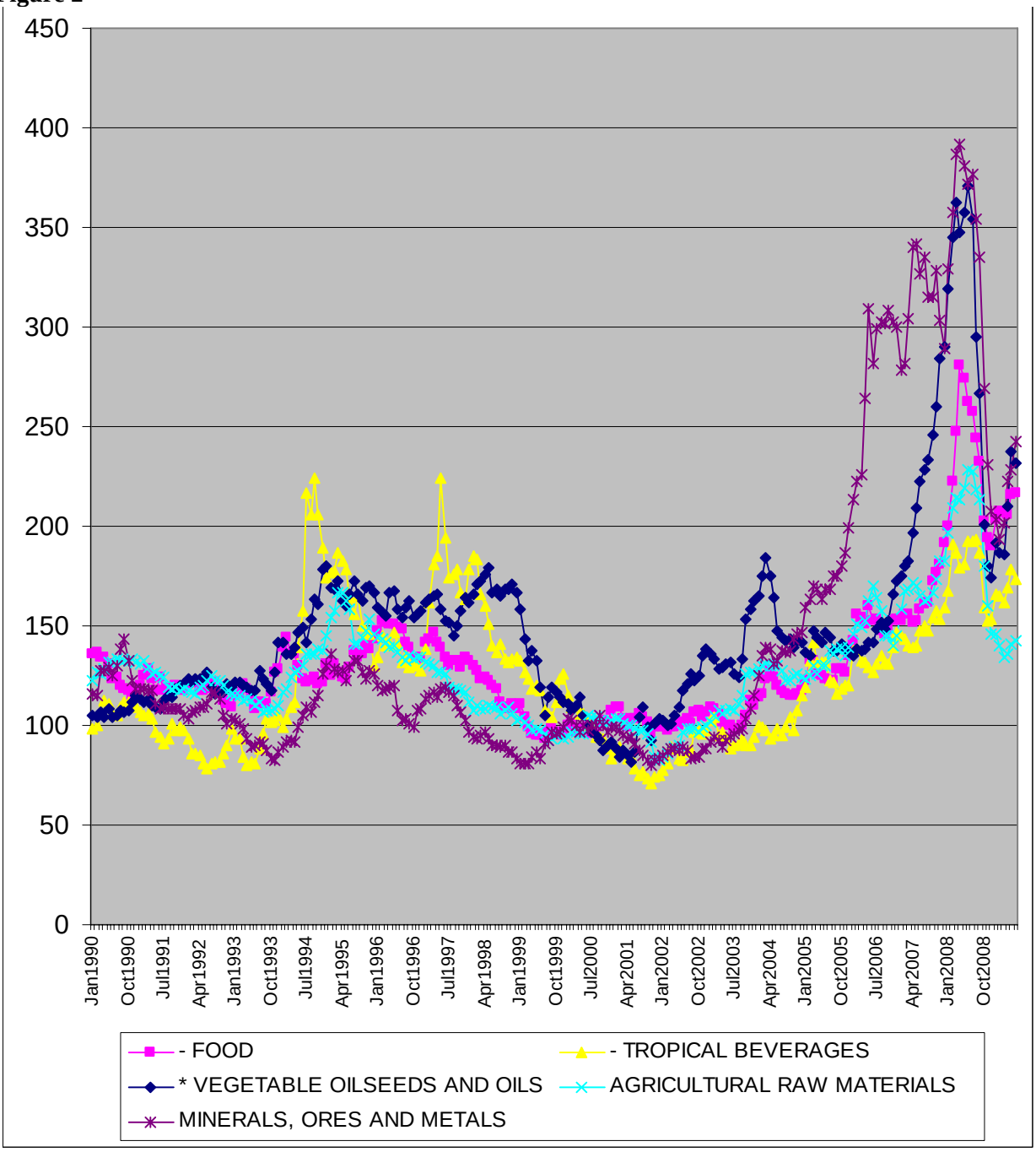
As is shown in Table 16, Figure 2 and 3, the commodity boom of 2003-08 ended in the second quarter of 2008 after a lag following the financial crisis which had started in 2007. From the peak (April 2008) to the trough (February 2009), non-oil commodity prices, in terms of the US dollar, fell on average by 36 per cent. The peak to the trough drop in petroleum prices was even more significant. As expected, non-oil primary products which have industrial uses (minerals and agricultural raw materials) were hit harder than other products; vegetable oils and oilseeds are exceptions. The demand for vegetable oils has increased during recent years as it has become a source of manufacturing bio-fuel in addition to their use in the chemical industry.

Changes in the prices of food products are of special interest to LDCs, the majority of which (36 out of 50) are net food importers, as mentioned earlier. During the "bust", the fall in the prices of food products was not as significant as the decline in the prices of other commodities. Thus while the net food importers suffered from the decline in the price of their commodity exports, they did not benefit from the fall in the prices of their main commodity imports. While food prices were higher by over 157 per cent in June 2008 than their average level in 2002, they registered the second smallest drop between that date and the trough in December 2008. Subsequently, the relevant index increased by 14 per cent by the end of June 2009, as against 10 per cent on average for all commodities.

The fall in prices of various groups of commodities affect the economic performance of exporting countries, particularly their manufacturing sectors, in different ways. In the case of minerals, particularly petroleum, the bulk of export revenue accrues to the government. The reduction in government revenues and expenditure affects the rest of the economy directly and through multiplier effects. Usually, what is often cut as a result of the reduction in government revenue is investment in infrastructure and productive sectors, with attendant consequences for long-term industrialization and development. A reduction in the price of agricultural raw materials and food exports changes the income of the producers and traders directly, affecting the pattern of households' consumption of manufactured goods under the influence of "Engel's Law".[45] Accordingly, expenditures on food and other necessities would benefit from a sort of "ratchet effect".

[45] According to Engel's Law, the percentage of the household budget spent on food consumption declines as income increases. But when income declines, households cut more of their expenditure on luxury good than on food items since a minimum of consumption is needed for survival. With declining incomes, this therefore creates a "ratchet effect" in favour of food consumption.

Figure 2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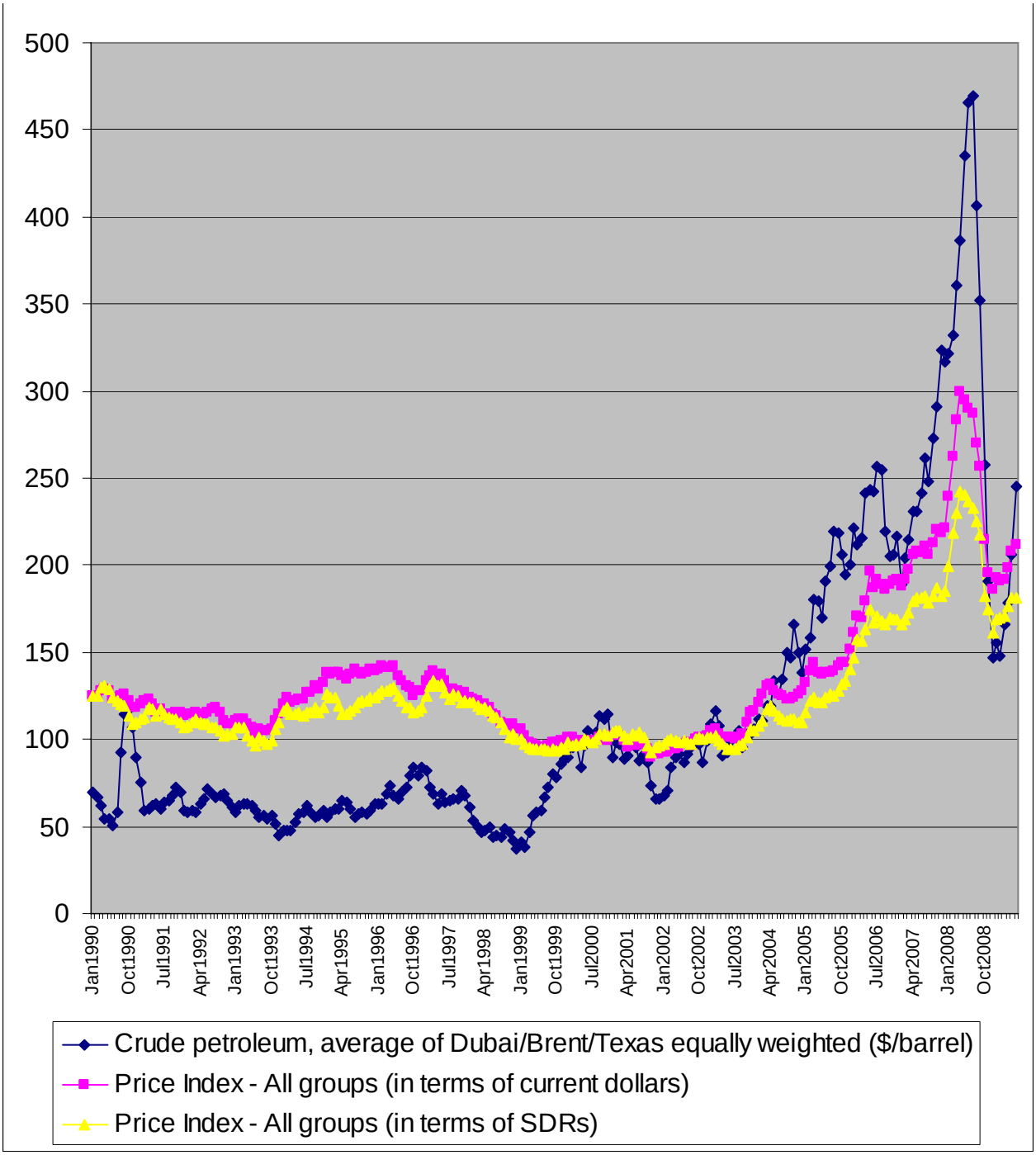
* VEGETABLE OILSEEDS AND OILS
AGRICULTURAL RAW MATERIALS
MINERALS, ORES AND METALS

Figure 3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Oct2008
Crude petroleum, average of Dubai/Brent/Texas equally weighted ($/barrel)
Price Index - All groups (in terms of current dollars)
Price Index - All groups (in terms of SDRs)

6. Workers' remittances, tourism and domestic demand for manufactures

While a decline in commodity prices has indirect effects on domestic demand for manufactured goods, a fall in workers' remittances influences it directly. A number of "manufactured goods exporters" are significant recipients of workers' remittances. Hence, the detrimental impact of a reduction in remittances on domestic demand for manufactured goods adds to the already falling external demands. This leads to low capacity utilization, unemployment and a negative influence on investment in productive capacity.

Workers' remittances accruing to LDCs have been growing fast during recent years **(Table 19).** They have become nearly as important as exports of manufactured goods for the LDCs as a whole. For some countries, they were, in fact, equivalent to, or greater than total exports in 2007 **(Table 20).**[46] As the economic situation in the host countries deteriorates, and expatriate workers become unemployed, remittances to their home countries drop. According to an estimate by the World Bank, the remittances will decline by over 4 per cent in Sub-Saharan Africa, South Asia and East Asia and Pacific.

In LDCs, the average income for families whose main source of financial support is remittances, is often higher than the average family income of wage workers, the self-employed whose income comes from the domestic sector, or the unemployed. Therefore, they usually spend a higher proportion of their income on manufactured goods and property than others. Hence, the reduction in remittances directly affects not only domestic demand for manufactured products, but also construction activities with a negative impact on employment, and thereby reducing demand further.

Table 19
Workers' remittances received by LDCs (2000-07)

	African	Asian	Island	Total
Value (US$ bn):				
2000	2.9	3.6	0.2	6.7
2007	6.4	10.1	0.2	16.7
Average annual growth rate, per cent (2000-07)	11.9	15.8	0	13.93

Source: Based on World Bank, *World Development Indicators*

[46] In 2007, workers' remittances were equivalent to over 100 per cent of total exports in the cases of Nepal and Haiti (200 per cent and 143 per cent of their manufactured exports, respectively), 50 per cent in the case of Bangladesh (62 per cent of its manufactured exports), 52 per cent in the case of Senegal (about 200 per cent of its manufactured exports) and over 45 per cent in the case of Lesotho (65 per cent of its manufactured exports).[46]

Table 20
Workers' remittance as a percentage of exports (2007)

Per cent of exports	Countries: No.	Countries: Names
100 or more	6	Gambia, Liberia, Haiti, Nepal, Comoros, Kiribati
50-70	4	Sao Tome, Uganda, Bangladesh, Senegal
30-50	7	Djibouti, Lesotho, Guinea Bissau, Rwanda, Vanuatu, Benin, Togo
10-20	9	Yemen, Sierra Leone, the Sudan, Ethiopia, Mali, Solomon Islands, Niger, Cambodia
Less than 10	5	Burkina Faso, Samoa, Guinea, Mozambique, Myanmar

Source: Based on World Bank, *World Development Indicators*

To further emphasize the importance of remittances, it should be noted that in 2008, workers' remittances as a percentage of GDP reached over 27 per cent in the case of Lesotho, and 18 per cent, 17.8 per cent and 11 per cent in the cases of Haiti, Nepal and Bangladesh, respectively. According to the IMF, in all these cases, except for Lesotho for which data are not available, the projected fall in remittances in 2009 is significant.[47] For example the difference between projections of 2009 remittances undertaken in 2009 and 2008 reaches 3 per cent of GDP in the case of Haiti.[48]

Estimates by the World Bank in September 2009 are that the flow of remittances to LICs will deteriorate by 5 to 7 percent in 2009 (World Bank 2009a: p7). World Bank data show a rapid rise in workers' remittances to LICs from $5.7 billion in 2000 to $16.1 billion in 2005 and a peak of $30.7 billion in 2008, and then declining to an estimated $28.5 billion in 2009. (World Bank 2009a: Table 1). The IMF estimates an even sharper fall of 10% in remittances to LICs, in sharp contrast to the double-digit growth rates in recent years. Sub-Sahara Africa is expected to be strongly affected since over three quarters of its remittances came from the US and Western Europe in 2008, and both have been badly affected by the recession. (IMF 2009b). In the first half of 2009, remittances to Uganda fell by 47% compared to the same period a year ago (and compared to a 8% growth rate in 2007-2008). In Bangladesh, the growth in remittances was 37% in 2007-08 but this slowed to 16% in the first half of 2009. There was a similar fall in Nepal's growth rate, from 58% in 2007-08 to only 19% in January-May 2009 compared to the same period a year ago.[49]

The crisis has also affected tourism, the main source of exports of services for a number of LDCs, particularly the island economies. Tourism is highly income elastic, thus it is usually sharply affected by global economic downturns. A fall in revenue from tourism directly affects the food processing industries. Further, it affects demand for manufactured goods indirectly through its impact on the income of employees of the tourism sector, which is labour intensive.

47 Based on IMF (2009.a)

48 IMF (2009.a), Appendix Table V.

49 These figures of individual countries are from World Bank 2009a, p6-7.

Worldwide tourist arrivals fell by 8% between January and April 2009, continuing the sharp decline in 2008. Some LDCs have been particularly hit hard. During the first four months of 2009, tourist arrivals were 6 to 16 per cent below the level of the previous year in Cambodia, Tanzania and Senegal. In Tanzania, travel receipts (which make up 60% of total services exports) rose by only 2.4% in January-May 2009, compared to the 25% growth in the same period in 2008. In Namibia, real value added in the hotel and restaurants sector fell by 17% in the first quarter of 2009.[50]

7. Impact on the current account

The combination of the decline in export earnings and remittances will have a significant detrimental effect on the current account of LDCs, both in terms of their imports and GDP. As shown in **Table 21**, African LDCs and the island economies are much more negatively affected than Asian LDCs.

The main reason for such a differential impact is the reliance of Africa and the island economies on exports of primary commodities and tourism, respectively. **Table 22** provides data on projections of the current account of the balance of payments for individual LDCs. The mineral and service (mainly tourism) exporters (mainly the islands) are worst hit by the external shock as judged by the projected deficits in their current accounts. 10 of the 16 countries with current account deficits/GDP ratios of greater than 10 per cent are petroleum, mineral or service exporters. These products have not only shown greater price declines in international markets, but they will also be worse hit as far as their volume of exports is concerned. Minerals, as well as agricultural raw materials, are inputs to industrial activities which have been more severely affected by the crisis than food products, which are subject to Engel's Law and are also used in the production of biofuels as mentioned earlier.

Table 21
Current account balance of LDCs

Groups	2000	2007	2008 projections	2009 projections
Value in million dollars				
Africa and Haiti	-9,103.6	-6,996.2	-4,885.1	-31,842.2
Asia	508.8	-433.6	-735.4	-1,875.1
Islands	-115.3	607.0	1,112.3	-91.3
Total LDCs	-8,710.1	-6,822.8	-4,508.2	-33,808.6
As a percentage of imports of goods and services				
Africa and Haiti	-28.8	-6.5	-3.6	-28.2
Asia	2.3	-0.8	-1.4	-3.4
Islands	-7.7	20.6	29.1	-2.6

[50] Data on tourism in this paragraph are from World Bank 2009a, p6-7.

Total LDCs	-15.9	-4.1	-2.4	-19.7
As a percentage of GDP				
Africa and Haiti	-9.4	-2.5	-1.4	-9.6
Asia	0.7	-0.3	-0.4	-1.0
Islands	-5.7	17.0	26.6	-2.1
Total LDCs	-5.0	-1.5	-0.8	-6.4

Source: IMF (2009c) and World Economic Outlook database
Asia 7 countries; Islands 7 countries; Africa 31 countries.
For a list of the countries see Appendix 4

Manufacture exporters seem to have fared, on balance, slightly better. Nevertheless, for most, overreliance on a single or a few light manufactured goods increases vulnerability to external shocks as indicated by the cases of Lesotho and Cambodia as compared with Nepal. Nepal has not only more diverse foreign exchange earnings, as workers' remittances are equivalent to its total merchandise export earnings **(Table 20);** but its structure of exports and MVA is also diverse despite having a smaller population than Cambodia (**Table 23**[51]**).**[52] Nepal is an interesting case which benefited from industrial collaboration with India for export diversification **(Shafaeddin, 2008).** This improved situation not withstanding, Nepal's garment industry did experience closures and unemployment in 2009.

[51] For the structure of Nepal's exports see Shafaeddin (2008).

[52] Demand for the export of ready-made garments to the US was hit by 47 percent in 2008. According to a UNIDO report, export turnover for these garments fell by 10 million Nepali Rupees compared to the year before. Exports picked up in end 2008 into 2009 due to increases in exports to India (UNIDO 2009 'Impact of the Global Economic Crisis on LDCs' Productive Capacities and Trade Prospects: Threats and Opportunities. A Case Study: The Fruit and Vegetable Sector in Bhutan and Nepal').

Table 22: Projected current account deficits of individual LDCs as a percentage of GDP (2009)

Exporting Groups	Deficits (per cent)					Surplus
	> 20	15-20	10-15	5-10	1-5	
Petroleum	Dem. Rep. of Congo (26.1)	-------	Chad, Sudan	Angola, Yemen Equ. Guinea		East Timor Myanmar
Other minerals	Niger (22.1)	-------	Mozambique, Zambia, Burundi	Mauritania, Mali, Cen. Af. Rep. Sierra Leone	Guinea	-------
Agricultural	Liberia (43.2)	-------	Burkina Faso	Solomon Is., Benin Uganda, Malawi G. Bissau, Kiribati	Afghanistan	-------
Manufactures	-------	-------	Lesotho Cambodia	Haiti		Bangladesh, Nepal, Bhutan
Services (1.03)	Sao Tome (44.3)	Gambia, Maldives, Djibouti	-------	Samoa, Comoros Tanzania, Rwanda Ethiopia, Vanuatu	-------	Eritrea
Diversified	-------	Madagascar,	Senegal, Laos	Togo	-------	
No. of countries	4	4	8	21	3	6

Source: Based on IMF (2009c), WEO

Table 23
Change in the structure of manufacturing production
of Nepal, 1995-2005 (percentages of total manufacturing)

Product group	1995	2005
Food and Beverages	35	45
Textiles and clothing	34	19
Machinery and equipment	2	7
Chemicals	6	10
Other manufactures	23	23

Source: World Bank, *World Development Indicators*

Most countries which are worst hit in their current accounts are also heavily indebted ones. Thus their debt sustainability will be undermined as well. According to an IMF simulation, assuming that LICs were able to replace the reduction in aid and FDI by external borrowing, their debt burden (external debt as a percentage of GDP) would increase further by about 4 percentage points over a year.[53] Such an assumption is, however, unrealistic because the economic crisis reduces their creditworthiness in the international market, making it difficult to borrow from private banks while funds that could be borrowed from international financial institutions are limited. It is most likely that the constraints in financing the current account deficits will lead to a reduction in GDP, government expenditure and private consumption with a negative impact on the manufacturing sector.

8. Shortfall in external financing and Balance of Payments problems

The deterioration in the current account of many LDCs due to the crisis has increased their need for external financing, especially if a balance of payments problem is to be avoided. Official financing account for the bulk of capital flows to poor countries, as mentioned in section II. There is now an even a greater need for official flows to finance the current account deficits to compensate the decline in private flows due the crisis.

Private flows, mainly FDI, accounted, on average, for over 10 per cent of long-term capital flows to LDCs during 2005-06. According to IMF projections, net FDI and portfolio investment will decrease by about 10 per cent in 2009 as compared with 2008. The current account deficits of the LDCs need to be financed by borrowing from international and regional financial institutions and grants. The IMF assumes that LDCs' net borrowing will decline in 2009 as compared with 2008 **(Table 24),** thus increasing the need for official inflows in the form of grants. While some pledges have been made by G20, IMF, the World Bank and regional development banks, as of April 2009 the IMF projection indicated a substantial decline in GDP of LDCs as a result of the crisis and insufficient financial flows to LDCs.

Although more recent data are not available on LDCs, reports by the IMF and World Bank in September and October 2009 provide information on how LICs have been affected by the decline in inflows of various types. The IMF estimates that Gross FDI in LICs is expected to fall by 25% in 2009, which may have a significant effect on overall investment in the industrial sector

[53] IMF (2009.a), p. 25.

since FDI accounts for one quarter of gross fixed capital formation in LICs.[54] According to World Bank data, net FDI inflows to LICs have fallen from $20 billion in 2007 to $13.9 billion in 2008 and are estimated to fall further to $11 billion in 2009. This is a drop of $9 billion or 55% over two years.

Table 24:
Financial net borrowing and FDI to LDCs, 2000-09 (in US$ millions)

Groups	2000	2007	2008	Change in 2008 Projections	2009
Net Borrowing					
Africa and Haiti (29 countries)	-23.55	-8,460.71	2,800.80	11,261.50	2,175.71
Asia (6 countries)	-65.64	79.18	-358.51	-437.69	26.06
Islands (8 countries)	91.63	-2,212.35	-3,001.61	-789.26	-3,338.96
Total LDCs (43 countries)	2.44	-10,593.88	-559.33	10,034.55	-1,137.20
Net FDI and portfolio investment					
Africa and Haiti (29 countries)	2,405	12,954	12374	-580.67	11,848
Asia (7 countries)	526	3,864	3,182	-681.43	2922
Islands (6 countries)	59	211	216	5.49	186
Total LDCs (42 countries)	2,990	17,029	15,772	-1,256.60	14,956
Sum of the above					
Africa and Haiti (29 countries)	2,382	4,494	15,174	10,680.83	14.024
Asia (7 countries)	460	3,943	2,824	-1,119.12	2,948
Islands (6 countries)	151	-2,002	-2,785	-783.76	-3,153
Total LDCs (42 countries)	2,993	6,435	15,213	8,777.95	13,819

Source: IMF (2009.c)
Note: for a list of the countries included see Appendix 4

The fall in FDI has been accompanied by an estimated sharp drop in net private debt flows to LICs. The net flows had risen from $2.1 billion in 2006 to $4.2 billion in 2007 and $7.4 billion in 2008, then declined to an estimated $1.8 billion in 2009.

Net private inflows to LICs (comprising net equity flows – mainly FDI – and net private debt flows) have therefore fallen from $30.6 billion in 2007 to $21.4 billion in 2008 and further to an estimated $13 billion in 2009.

[54] IMF 2009c, p13.

This major decline in private financial flows will not be made up for by aid, since overall aid flows to LICs are expected to grow only marginally in 2009. The performance by aid donor countries has been particularly disappointing. At the G8 Summit in Gleneagles in 2005, a commitment was made to raise the ODA of OECD countries by $50 billion in 2004 prices (from $80 billion in 2004 to $ 130 billion in 2010). However in 2008, the ODA provided was $29 billion short of the Gleneagles target for 2010, according to the World Bank's Global Monitoring Report. ODA would have to increase by 11% in real terms per year in 2009 and 2010, but current indications are that the aid will flow far short of this.[55]

9. Impacts on GDP and Industrial Sector

Judged by the projected rate of growth of GDP for 2009, as compared with the actual rate in 2007, **Table 25** also indicates that the African and Island LDCs will be, on average, the most affected by the global economic crisis. According to the IMF, a few oil and mineral exporting countries, as well as Lesotho and Cambodia, the Maldives and the Comoros Islands will be among the countries with the lowest projected GDP growth rates in 2009.

The decline in exports of petroleum and mineral exporters has a negative impact on GDP directly, as well as indirectly through government revenue, as mentioned earlier. Commodity revenues as a percentage of GDP are projected to decline significantly in 2009, as compared with 2008, ranging from 20 percentage points in the case of Chad to 3 percentage points in the case of Mauritania.[56]

Table 25
GDP growth rates of LDCs, 2007-09 (per cent)

Groups	2007	2008 (projected)	2009
Africa	8.6	5.8	2.96
Asia	6.2	5.24	4.99
Island	5.0	5.89	2.97
Total	7.6	5.72	3.3

Source: Based on Tables 17 and A.3

The main victims of the crisis are private consumption and private and public investment. This has important implications for the utilization and expansion of capacity. Private consumption is severely affected by job losses and the reduction in income of households. Investment is treated as residual by both the public and private sectors.

Unfortunately, there are no readily available projections of investment and private consumption for LDCs. Nevertheless, some inferences can be made with the help of World Bank projections for LICs, as shown in **Table 26.** The data include countries other than LDCs. Nevertheless, it provides useful information. As expected, the negative impact of the crisis on

[55] IMF 2009c, p13-14.

[56] *Ibid.*, p. 22.

both private consumption and investment, particularly the latter, is more severe in Sub-Saharan Africa, but less so when South Africa is excluded. In South Asia, the exclusion of India does not make any difference to changes in GDP growth, or therefore of private investment and private consumption. But if Pakistan is excluded, the impact on the remaining countries would be milder. As expected, Bangladesh seems to be in a better situation than other countries as a whole.

A number of public and private projects have been cancelled or postponed in African LDCs. For example, in Ethiopia a hydropower project of EUR 1.5 billion was cancelled. Burkina Faso has problems financing three mine projects, as do Tanzania and Guinea. In Senegal two infrastructure projects (a toll road and an airport) are delayed.[57]

In short, investment in productive capacity seems to be the main victim of the impact of the global crisis on LDCs, particularly in Africa, but private consumption, and thus domestic demand for manufactures, is also severely affected. The extent of the negative impact of the global crisis on manufacturing through investment and domestic demand is not easily quantifiable. But there is already some evidence that the sector is under stress because of the combination of the decline in domestic demand and export revenues. For example, in Cambodia, in the first two months of 2009, garment exports dropped by nearly 20 per cent compared with the same period of the previous year. It is estimated that between 40,000 to 60,000 out of over 300,000 garment workers have become unemployed in Cambodia (**Salze-Lozac'h, 2009**). In Madagascar and Lesotho several textile factories were closed. Madagascar "shows an 8 per cent to 15 per cent decline in economic activity in various sectors".[58] In Uganda 15 factories closed in 2008 due to falling demand and increasing costs of production caused by devaluation,[59] and 15 more were expected to close in the first quarter of 2009.[60] As mentioned earlier, the garment industry of Nepal suffered from the closure of some factories and unemployment,[61] although the data on the number of people who have lost their jobs are not available.

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57 AfDB (2009.a), Table 3.

58 *Ibid.*, p. 16.

59 *Ibid*.

60 AfDB (2009.b), Table 3.

61 LDC Watch, June 2009, http://www.ldcwatch.org/wcm/index.php.

Table 26:
Average annual GDP growth, fixed investment and private consumption in Sub-Saharan Africa and South Asia (2006-09), percentages

	2006-07[a]	2008[b]	2009[c]	Change, 2006/07 to 2009
Sub-Saharan Africa:				
GDP at market prices[d]	6.2	5.4	4.6	-1.6
Private consumption	6.5	3.4	3.5	-3
Investment	19.9	12.7	7.7	-12.2
GDP excluding South Africa	6.6	6.6	5.7	-0.9
GDP of oil exporters	7.6	7.8	6.6	-0.9
South Asia:				
GDP at market prices	8.7	6.3	5.4	-3.3
Private consumption	6.8	5.7	4.7	-2.1
Investment	15	7.1	4.8	-10.2
GDP excluding India	6.3	6.1	4	-2.3
Pakistan	6.1	6	3	-3.1
Bangladesh	6.5	6.2	5.7	-0.8

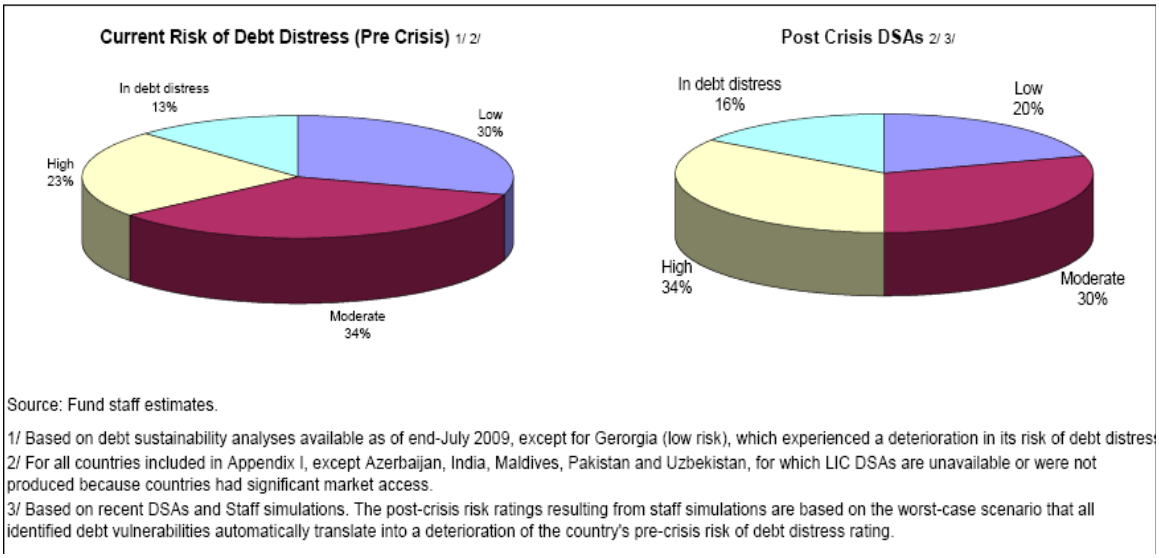
a. Average b. Estimate c. Forecast d. In US dollars of 2000.

Source: World Bank **(**2009), Tables A9 and A11.

10. Increase in vulnerability in external debt

The global financial crisis has also had significant effects on the external debt situation of LDCs. According to UNCTAD, the decline in global demand and the resulting fall in developing countries' growth and export performance will partially reverse the improvement in debt indicators that took place during 2003-08 (Panitchpakdi 2009). For example, the debt service to export ratios are expected to worsen for both HIPCs and non HIPCs during 2009, and debt service burdens, both as a share of exports and as a percentage of government revenues, will be high in 2009 and well into 2010 as compared to the pre-crisis years. In 2009, debt service in relation to government revenue will increase by over 17% for both HIPCs and non HIPCs.

Figure 4: IMF estimate of Increased Debt Vulnerabilities of Low-Income Countries



Source: Fund staff estimates.

1/ Based on debt sustainability analyses available as of end-July 2009, except for Gerorgia (low risk), which experienced a deterioration in its risk of debt distres
2/ For all countries included in Appendix I, except Azerbaijan, India, Maldives, Pakistan and Uzbekistan, for which LIC DSAs are unavailable or were not produced because countries had significant market access.
3/ Based on recent DSAs and Staff simulations. The post-crisis risk ratings resulting from staff simulations are based on the worst-case scenario that all identified debt vulnerabilities automatically translate into a deterioration of the country's pre-crisis risk of debt distress rating.

Source: IMF 2009b (p22).

While the downturn in GDP, exports and government revenue increases the debt burden indicators, some countries have also increased external borrowing to cushion the impact of the crisis. Based on IMF's debt sustainability analyses, almost two thirds of all LICs were classified as having either low or moderate risk of debt distress. But due to the crisis, a number of countries could move into higher debt risk categories. Eight moderate risk countries could face increased debt vulnerabilities (Ethiopia, Lesotho, Malawi, Mauritania, Nepal, Nicaragua and St Vincent and the Grenadines and Sierra Leone). Of those currently rated as high risk, Afghanistan is particularly vulnerable to fallouts from the crisis. The IMF (see Figure 4) estimates show that between the pre-crisis and post-crisis periods, the percentage of LICs in debt distress will rise from 13% to 16% and those at high risk will increase from 23% to 34%, while those at moderate risk will decline from 34% to 30% and those at low risk will decline from 30% to 20%.

A list of LICs with debt-risk ratings by the IMF and an indication of increased debt vulnerability is given in Appendix 5.

V INTERNATIONAL RESPONSE AND SHORT-TERM AND LONG-TERM POLICIES AND STRATEGIES

This section first discusses the international policy responses required to assist the LDCs. It then examines the scope for and constraints on short-term policies LDCs may wish to pursue in response to the global economic crisis. Subsequently, an outline is presented on longer-term strategies for utilization of resources in case of the emergence of another commodity boom. The required trade and industrial policies, regional cooperation for industrial collaboration and a brief discussion of the role of EPZs are among other topics covered.

1. International Policy Responses

During the UN Conference on the Financial Crisis in June 2009, developing countries proposed a number of international measures to ease the financial problems of LICs. These include short-

term measures such as moratorium on debt payments and debt standstills, provision of extra financial resources without conditionalities, increasing SDR allocations, easing restrictions on labour migrations to prevent reduction in the flow of remittances to LICs, avoidance of imposition of pro-cyclical policies and conditionalities by the international financial institutions, etc. The long-term international measures proposed include: enhancing policy space of developing countries, reform of the international financial and economic system and architecture, equitable international trading system, reform of the Britton Woods Institutions, creation of Global Economic Council, etc. (see South Bulletin, 2009). So far, however, there has been little progress in any of these areas.

i. Meeting the foreign exchange shortfall

The external financing needs of LDCs have increased since the start of the crisis. The aggregate external financing needs of LICs are estimated at $59 billion in 2009 by the World Bank (2009a: p13). The IMF estimates that the total net external financing needs of 63 LICs is $81 billion in 2009, an increase of $25 billion from 2008. It also estimates a similar shortfall of $81 billion in 2010 (IMF 2009b: p26). The shortfall makes it more difficult for LDCs to meet their social expenditure requirements. According to the World Bank, the global recession has put at risk core spending (education and health, infrastructure and social protection) of $11.6 billion (equivalent to 1.1% of GDP) in the poorest countries in 2009, and due to the difficulties faced by the poor countries in mobilising additional resources, support from largely external sources is required if this core spending is to be maintained.

Meeting the foreign exchange shortfall of LDCs should thus be a priority for the international community. Recognising the liquidity shortfall predicament, the UN Conference on the World Financial and Economic Crisis in its outcome document called for
"examination of mechanisms to ensure that adequate resources are provided to developing countries, especially the LDCs. We underscore that developing countries should not be unduly financially burdened by the crisis and its impacts."

The South Centre (2009: p9) has argued that LICs should be compensated and not burdened with additional debt because of financing they receive to meet the shocks from the crisis. It proposes that a one-off permanent Special Drawing Rights (SDR) allocation to these countries be made, on the basis of need, at no cost to them. The cost of drawing on such allocations could be financed collectively from the IMF resources, including gold sales. The G77 and China made a similar proposal during the UN Economic Conference, asking that $100 billion in SDRs be allocated to LDCs to help them meet their foreign shortfall. The G20 Summit in London in April 2009 agreed that $250 billion in SDRs be issued, but since the allocation of this is according to the IMF members' share of quota, only a small fraction was allocated to LDCs. A new allocation of SDRs to LDCs should thus be considered to help them meet their shortage of external liquidity.

ii. Moratorium on debt servicing

A temporary moratorium on official debt servicing for developing countries affected by the economic crisis has also been proposed by the UNCTAD Secretary General. In the current global crisis situation, both debtor and creditor countries would be better served if scarcer foreign exchange earnings in the debtor countries are used for the purchase of imports rather than for debt servicing, according to UNCTAD (2009). This proposal has also been supported by the UN Secretary General, who stated that LICs with high debt levels need to be given alternative financing opportunities for achieving the Millennium Development Goals.

"A debt moratorium or standstill would immediately and unconditionally liberate resources and give countries the fiscal space to respond to the specific circumstances they are facing. Such a moratorium can be viewed as part of a multifaceted approach to mitigating the impact of the crisis and reduce the build-up of unsustainable debt in vulnerable economies." (UN Secretary General 2009: p15-16).

iii. Avoiding new debt crisis and establishing a debt restructuring mechanism

An important missing element in the present global financial architecture is the absence of an international debt arbitration and restructuring institution or mechanism. Such a mechanism had been advocated by UNCTAD, and also by the IMF Secretariat, but the discussion on this proposal did not reach a conclusion. At the UN Economic Conference, UNCTAD and the South Centre took up this issue again, with the UNCTAD Secretary General proposing an international system with similar principles to the US Bankruptcy Code's Chapter 11 (*South Bulletin* 7 July 2009). In this mechanism, the debtor country can avail itself to the court and obtain a debt standstill; the court would then arrange a debt work out between the country and its creditors, and the country in the meanwhile can avail itself of new loans. The advantages of this system is that there is an equitable sharing of the costs between debtors and creditors, and the debtor country facing an unsustainable debt does not have to undertake full debt servicing payments for many years until it is able (if at all) to obtain partial debt relief. The country is able to have a debt workout up front, and then start again with a clean slate and attempt to obtain fresh loans.

The UN General Assembly members at the UN Economic Conference agreed to explore enhanced approaches to the restructuring of sovereign debt based on existing frameworks and principles, as well as to "explore the need and feasibility of a more structured framework for international cooperation in this area" (United Nations General Assembly (UNGA) 2009, para 34). There is thus scope to address this issue, including in the working group set up to follow up on the UN Economic Conference.

iv. Ensuring and expanding policy space

Because of the global crisis and its effects on LDCs, it is even more urgent for a review of the present policy constraints and the potential constraints placed on LDCs, including by conditionalities of the international financial institutions, the rules of the WTO and the provisions of the free trade agreements, especially the Economic Partnership Agreements.

Besides contractionary macroeconomic policies, the IFIs have previously insisted that LDCs taking their loans and undergoing debt rescheduling have to commit to low tariff levels, thus making their applied tariffs lower than their WTO bound rates. This has been largely responsible for the de-industrialisation and the decline in agriculture in several LDCs. The crisis has highlighted the need for LDCs to expand their domestic supply capacity, in order to provide jobs, to fill in the gap from a fall in demand for exports, and to save on foreign exchange. Thus the trade conditionalities of the IFIs should be reviewed and amended.

A review should also be made on whether the rules of the WTO constrain the policy space of LDCs, and in what ways and to what extent. For example, under current WTO rules, developed countries are still able to maintain high agricultural subsidies, which affect the prospects of LDC producers, for example in the case of cotton, in which the more efficient African producers are rendered uncompetitive in the world market because of the huge subsidies provided especially to cotton farms in the United States. Another example is Article XXIV of the General Agreement on Tariffs and Trade (GATT), which constrains participants of regional trade

agreements as they are to eliminate tariffs on "substantially all trade". This severely limits the ability of developing countries including LDCs from enjoying non-reciprocal benefits in FTAs and RTAs with developed countries. The rules on such provisions of WTO agreements should be reviewed so as to provide more benefits for LDCs.

The provisions of the FTAs, and especially the EPAs that many LDCs are negotiating with the EU should also be reviewed for their developmental impact on LDCs. The proposals to eliminate tariffs on most products in the EPAs would severely constrain the prospects and viability of their domestic producers. The establishment of rules on the Singapore issues (investment, competition, government procurement) would seriously limit the policy space of the LDCs to develop the capacity of their domestic producers and their domestic economy, as well as to regulate investments and financial flows. The provisions on intellectual property may result in the LDCs taking on obligations beyond their TRIPS obligations, or joining international IP agreements that also constrain their policy space.

Because the current crisis requires LDCs to consider choosing many policy options that are or could be discouraged or disallowed by such policy conditions, rules and provisions, there should be international cooperation to review, and where appropriate, to amend them.

There are also policy instruments that LDCs could make use of, but may not have full knowledge of or that have been discouraged from using, to counter the effects of the crisis. These include restrictions on imports, restrictions on capital flows and the management of foreign reserves. These issues are dealt with in the section below on short-term domestic policies.

v. Encouraging regional economic cooperation

The global crisis has already resulted in large export losses for LDCs and in the medium term these countries are unlikely to go back to the kind of expansion of exports to world markets they enjoyed in the run up to the crisis. In particular, it is now expected that consumer spending in the US will be sluggish and the country will have to make a fundamental external adjustment in order to reduce the pace of its debt accumulation and stabilize the dollar. Similarly growth rates in Europe and Japan remain low, even if recovery takes place soon. It is thus important for LDCs to participate in regional economic cooperation and in broader South-South cooperation which could to some extent offset the loss of growth in the markets of major developed countries. There should be greater attention to formulating and implementing policies in order to achieve such cooperation. International agencies should also help to facilitate this process and to overcome the obstacles to regional trade, investment and financial cooperation among developing countries.

Certain countries in Africa are already taking advantage of the regional market. In terms of technical barriers to trade, and other prohibitive standards, this is an easier market to access. Kenya, for example, exports 67 percent of its total manufactured exports to the Common Market for Eastern and Southern Africa (COMESA) region (Kenya Civil Society Alliance et al 2007). The LDCs could also benefit from a similar strategy, although an EPA with the EU would likely foreclose these opportunities since EU goods and services would more likely capture these markets.

Regional cooperation should also be extended to finance. We propose that LDCs and other developing countries may create a Bank of the South to which they can share its capital requirement based on a certain criteria to be agreed. LDCs and other primary commodities exporters would contribute to a special account when the price of primary commodity exports exceeds a certain level and could borrow when it falls below a certain level. The Latin American

countries have made an attempt to create such a bank at the regional level. The advantage of such a fund over a similar national fund would be that the governments would not have access to it at the time of boom.

2. Short-term policies and their limitations

There is a limit to which LDCs can undertake counter-cyclical macroeconomic policies without extensive external financial support. Yet their ability to do so, as noted earlier, is obstructed by the international financial institutions which are a major source of external funds. Monetary and fiscal tightening deepens economic contraction while devaluations fail to stimulate exports and hence improve balance of payments primarily through cuts in imports (see Box 1 on Malawi).

Box 1

Malawi's exposure to external shock:
imposition of pro-cyclical monetary and fiscal policies by the IMF

Malawi is a landlocked and heavily indebted country with heavy dependence on the production and exports of primary commodities (see Table A.1) and aid flows to cover its imports and debt servicing. The country receives little FDI. About half of the foreign aid received in 2007 had to be allocated to service its debts. Food and fuel accounted for over 26 per cent of its imports and 48 per cent of its exports in 2006**.** Mainly because of high oil prices, the country suffered a loss from the terms of trade and inflation. When the commodity shock of 2008-09 took place, the country had foreign reserve coverage of 1.1 months. The country approached the IMF in November 2008 within the framework of the Exogenous Shock Facility. Providing some financial help, the IMF imposed conditionalities in the form of fiscal and monetary restrictions in order to control inflation, even though inflation was basically imported and despite the fact that the Fund has, in principle, accepted the use of counter-cyclical policies. Such pro-cyclical economic policies are likely to harm the growth of the country as the world economic recession bites.

i. Devaluation

Given that shortage of foreign exchange constitutes one of the tightest constraints on economic activity and growth in LDCs, it is important that they pursue a policy of stable and competitive exchange rates and do not succumb to the temptation of appreciations at times of boom in world commodity markets and sharp increases in commodity prices. Nevertheless, there is very little that can be expected from devaluations in alleviating the payments constraints so as to maintain a reasonable level of economic activity and growth at times of sharp contractions of global commodity markets and declines in commodity prices and export earnings, as has been the case in the current global economic and financial crisis. Since LDCs are small participants in world trade in both commodities and labour-intensive manufactures, it should in principle be possible for them to increase their shares without provoking retaliatory action from major exporters. However, in this they often face supply-side constraints. The scope for rapidly switching goods from domestic absorption to exports is highly limited in such countries because export goods are often specific to foreign markets and consumed hardly at all at home. On the other hand, it is not generally possible to swiftly redirect resources so as to increase the supply of exportables since such a response usually takes time and depends on new investment, which is also constrained by shortage of foreign exchange. Under these circumstances, devaluations undertaken in response to external commodity shocks can be expected to improve balance of payments not so much through expenditure switching as through expenditure reduction − that is, at the expense of economic activity and growth.

Besides, sharp devaluations under such circumstances could lead not only to domestic price instability but also financial difficulties in both public and private sectors. They tend to increase the domestic-currency cost of servicing foreign-currency denominated public debt, thereby putting pressure on the budget and reducing the scope for increasing public spending in goods and services to stimulate economic activity. Moreover, in countries with significant liability dollarization they could create deleterious effects on private balance-sheets with large currency and maturity mismatches, leading to financial difficulties in firms particularly in non-tradeable goods sectors.

Yet devaluation has been a policy measure taken by many LDCs in reaction to the external shock, often in the context of programmes designed by international financial institutions. The crisis led to a drastic fall in foreign exchange reserves of a number of LDCs, particularly commodity dependent countries, which are also often among highly-indebted countries. The inflationary pressure caused by shortages of foreign exchange was aggravated by devaluations, particularly in the case of African LDCs. For example, a decline in copper prices of nearly 66 percent between July and December 2008 was the main cause of devaluation of 33.5 per cent in the Zambian currency between end-July 2008 and mid-February 2009.[62] Copper accounted, on average, for nearly 65 per cent by value of Zambian merchandise exports during 2005-06.[63] In the Democratic Republic of Congo, which depends on petroleum and other minerals for over 90 per cent of its exports, devaluation of about 40 per cent took place over the same period. While these two countries are extreme cases in Africa, they are not the only ones. Over the same period, there has been a devaluation of the currencies of Lesotho by 25.6 per cent, Madagascar by 20.1 per cent, the Comoros, Benin, Cape Verde, the Gambia and Uganda between 15 and 20 per cent; Ethiopia, Mauritania and Tanzania, 10-15 per cent, and Mozambique and the Sudan by 5-10 per cent.[64] With the exception of Lesotho, all the devaluing countries were heavily indebted.[65] Devaluation increases production costs in the manufacturing sector directly more than the other sectors because of its greater dependence on imported inputs. Furthermore, where the imported food bill is high, devaluation adds to the inflationary pressure as it may initiate a price-wage spiral because food is a wage good. In fact, in 2008, for which data are readily available for most LDCs, the rate of inflation has exceeded 10 per cent in the majority of Asian LDCs (mostly smaller countries) and in more than half of African ones **(Table 27).** Preliminary information suggests that inflation has accelerated in most countries which have resorted to sharp devaluations.

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62 AfDB (2009.a), Table 3.

63 UNCTAD (2008.a), Table 3.2.D.

64 Only Somalia, Malawi and Angola did not devalue over the period concerned. A number of other countries devalued less than 5 per cent.

65 AfDB (2009.a), Table 3.

Table 27: The rate of inflation in LDCs in 2008
Source: IMF,(2009), Table A.7

Range of inflation rates	Africa and Haiti		Asia	
	No. of countries	Countries	No. of countries	Countries
4-5	3	Comoros*, Equatorial Guinea, Gambia	1	Vanuatu
5-10	13	Madagascar, Benin*, Uganda*, Cape Verde*, Cent.Af.Rep.*, Eritrea*, Mali*, Mauritania*, Sierra Leone*, Malawi*, Senegal, Togo*, Chad*	4	Laos*, Bangladesh, Bhutan*, Samoa*, East Timor*, Nepal*
10-15	12	Angola*, Sudan*, Burkina Faso*, Rwanda*, Haiti*, Tanzania*, Lesotho*, Niger*, Mozambique*, Djibouti*, Guinea- Bissao*, Zambia	3	Kiribati*, Maldives*, Papua New Guinea*
15-20	3	Dem. Rep.of Congo*, Liberia	4	Solomon Islands*, Cambodia*, Yemen*
20-25	2	Burundi*, Guinea		
25-30	2	Ethiopia*, Sao Tome	2	Afghanistan*, Myanmar*
Total	34		14	

Note: * means that inflation accelerated in 2008.

ii. Macroeconomic stimulus

In LDCs the scope for pursuing counter-cyclical fiscal and monetary policies to offset the adverse impact of external shocks on economic activity is highly limited because of the foreign exchange constraint. A developed country which enjoys a reserve-currency status such as the United States or a country with ample foreign exchange reserves can apply monetary and fiscal stimulus packages without facing external payments difficulties. Further, in such cases the fall in exports can be, to a large extent, compensated by creating domestic demand for exportables because of flexibility of the production structure and similarities between the composition of exports and domestic absorption. Most LDCs run significant deficits in their current account balance of payments even at times of rapidly expanding global economy and buoyant commodity markets. Any fiscal and monetary stimulus under worsened global conditions would put further pressure on their current account. In LDCs, the share of manufacturing sector in GDP is small, and the manufacturing sector depends heavily on imported inputs. Further, as noted earlier, most LDCs are net food and petroleum importers (32 out of 50). Manufactured goods, food and petroleum, together account for over 95 per cent of total imports of LDCs. Hence, any macroeconomic stimulus would lead to a significant import expansion. Further, when global demand for exportables of LDCs contract, these products cannot always be shifted to domestic markets or the resources used for their production cannot easily be deployed to the production of domestically consumed goods.

Thus any macroeconomic stimulus has to be complemented by extra sources of external finance and debt forgiveness by the international community. According to the IMF the extra external financial resources needed for LICs, the majority of which are LDCs, is between US$25 billion and $138 billion.[66]

[66] IMF (2009.a), p. 35.

iii. Import restrictions under the "balance of payments" clause

There are two tools available to LDCs which can be, in fact should be, utilized, even if extra financial resources are provided to them. These are the use of "balance of payments clauses" at the WTO for targeted import restrictions and control of capital outflows **(Akyüz, 2009).** Management of foreign exchange reserves also could be a possibility in a limited number of cases.

WTO rules allow temporary import restrictions when there is a severe balance of payments deficit. To have a positive impact on domestic output and productive capacity, the import restriction should be targeted at items which do not contribute to the supply of domestically produced goods (e.g. imported inputs necessary for production of manufactures) or the supply of basic needs.

iv. Capital account control

The orthodox institutions, including the IMF, often strongly advise developing countries, including LDCs, to liberalize the capital account of the balance of payments. While such a policy may contribute, in theory, to the attraction of FDI and portfolio investment when the world economy is doing well, it can result in the accelerated exodus of capital, by nationals or foreign firms, when a country faces recession and current account problems as was the case during the Asian financial crisis of 1997-98. One major lesson of the series of crises in developing countries and now the global crisis is that capital flows should be managed and regulated. The successful experience of Malaysia during the Asian financial crisis demonstrates the importance of controlling capital flight[67] during an economic crisis**.** The LDCs should consider the management and control of capital flows as a policy instrument that can be commonly used. Otherwise, instability of capital flows will result in erratic movements in the flow of imports, exchange rate, interest rate, production costs and the price structure, exacerbating instability in output and the uncertainty and risks of investment. There is evidence that instability in the flow of imports, in particular, affects the growth of MVA and GDP **(Helleiner, 1986).** Furthermore, the available data on 42 LICs indicates that during 1970-2004, their accumulated capital flight was nearly three times higher than their accumulated debt stock![68]

v. Management of reserves

Because of absence of multilateral arrangements for commodity price stabilization and adequate provisioning of counter-cyclical financing by international financial institutions at times of worsened global economic conditions, developing countries, including commodity-dependent LDCs, are well advised to provide self-insurance by accumulating reserves at time of rapid global expansion and boom in commodity markets and prices for use during economic downturn. This implies that they should avoid currency appreciations during global expansion and/or pushing growth above sustainable levels, thereby allowing foreign exchange receipts to be drained by increased demand for imports and domestic absorption.

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[67] The World Bank argues in favour of an arrangement for repatriation of capital flight to Sub-Saharan countries (**Fofack and Ndikumana, 2009**). But such an arrangement seems unrealistic technically, legally and politically. It is not clear why the easier option of capital controls is not proposed.

[68] UNCTAD (2009.a), Table 10.

Only a few LDCs have had the opportunity to pursue such counter-cyclical reserve policies in order to reduce instability of imports. In this respect one should make a distinction between petroleum and other mineral exporting countries where the bulk of export revenues accrue to the government in the form of royalties (rent) from other LDCs where the traders and producers are the direct receivers of income from exports. In the former case, the government may accumulate reserves at the time of boom by refraining from spending a part of the revenues, and controlling the increase in effective domestic demand, thus imports, through budgetary means. In the case of other LDCs, the export expansion contributes to the increase in income of traders and producers on which the government has no direct control. As a result, it leads to growth of imports.

An examination of the evolution of foreign exchange reserves, in terms of number of months of imports, of various groups of developing countries for the period 2001 (the yearly trough in commodity prices) and 2008 (the yearly price peak) shows that all groups, with the exception of (non-fuel) primary commodity exporters, managed to increase their reserves (Table 28). The figure for fuel exporters is mainly due to the strong influence of Saudi Arabia, whose absorption capacity is low in relation to its vast oil exports. Generally low-income and highly indebted countries have been unable to increase their reserves as much as other developing countries. These conclusions are more or less confirmed by the evolution of the reserve over a longer period and their evolution during 2000-2006 as compared with 1990s as indicated in table28. Accordingly, the nature of the main export item together with the level of income of the country explains the changes in the reserves during 2000-2006 as compared with the previous period. The Asian financial crisis was an influential factor in the decision to increase foreign exchange reserves and, in some cases, control of capital flows, particularly in East Asian countries (Park and Estrada, 2009).

Table 28
Foreign exchange reserves of developing countries, 2001-06 (No. of months of imports)

	2001	2006	2007	2008	Ratios 2008/2001
Sub-Sahara excl. Nigeria and South Africa	3.9	4.7	4.7	4.5	1.17
Developing Asia:	7	10.7	12.1	13.5	1.93
Asia, excluding China and India	4.5	5.1	6	5.2	1.13
Middle East	9.4	12.2	13.8	12.8	1.36
Fuel exporters	7.4	13.6	15.1	13.2	1.78
Non-fuel exporters:	5.5	7.9	9.3	9.3	1.62
of which primary commodity exporters	5.6	4.7	3.9	4.1	0.69
Net debtor countries	4.8	5.3	6	5.4	1.13
Heavily indebted countries	3.4	3.9	4.1	3.8	1.12
Memo: commodity prices indices (2000=100)	96.4	183.8	207.2	257	2.67

Source: base on IMF (2009), WEO, April 2009, Table a.15 and UNCTAD(2008.a),table 6.1and Commodity Price Bulletin online

As the majority of LDCs are primary commodity exporters and are heavily indebted, it is not surprising that their ability for management of reserves is more limited than other developing countries. Nevertheless, they have some room to manoeuvre as indicated in

table 29. We may take changes in commodity price indices as a rough indicator of business cycles. Accordingly, in 2006 the commodity price index was significantly higher than in 2000 which in turn was lower than that in 1990. Accordingly, it is evident that the increase in foreign exchange reserves indicator of LDCs in 2006 as compared with 2000 was smaller than all other groups of developing countries, except heavily indebted countries. More importantly, the data also indicates that, with the exception of Asian LDCs, the foreign exchange reserve indicator of LDCs in 2006 is smaller than that of 2002 despite the fact that commodity prices were significantly higher in 2006 than that in 2002.

Table 29 International reserves of foreign exchange; number of months of imports 1990-2006

Groups	1990	2000	2002	2006	ratios 2000/1990	ratios 2006/2000
Least Developed countries	2.8	4.3	5.1	4.8(14)	1.53	1.12
Africa and Haiti	2.4	4.2	4.9	4.4(16)	1.75	1.04
Asia	3.3	4.3	5.3	5.5(12)	1.30	1.28
Islands	4.7	5	5.4	4.5(15)	1.06	0.9
Other developing countries	5.2	6.8	9	10.1(5)	1.31	1.49
Developing countries ex. China:	5	6.3	8.2	8.2 (8.a)	1.26	1.30
Eastern & South-Eastern	6.2	7	9.6	9(6)	1.13	1.45
Southern Asia exl. India	1.6	2.3	5.2	4(16)	1.43	1.74
High-income developing countries	6.7	6.7	8.8	8.3(8)	1	1.24
Middle-income developing countries	3.6	5.7	7	7.9(9)	1.58	1.39
Low- income developing countries*	4.1	7.6	10.2	13(1)	1.85	1.71
Heavily indebted countries	3.3	7.7	7	6.5(10)	2.3	0.84
Newly industrialized countries:	6.2	7	9.6	8.9(7)	1.13	1.27
Fist tier	7.4	7.8	11.5	10.2 (4.a)	1.05	1.31
Second tier	3.9	5.5	6.4	6.4(11)	1.41	1.16
Petroleum exporters	6.7	8.4	8.4	10.5(4)	1.25	1.25
Manufacture exporters	5.4	6.6	9.3	10.8(3)	1.22	1.63
L. America	3.1	3.4	4.7	5.3(13)	1.1	1.55
Asia	5.9	7.4	10.4	11.7 (2)	1.25	1.58
Memo: commodity prices indices	124.3	100	97.2	183.6	0.81	1.84

Source: UNCTAD (2008.a, table 7.5.2 and 6.1).

* LICs include several oil exporting countries: Angola, China, India, Indonesia, Iraq, Nigeria, Sudan, Yemen

3. Long-term strategies and policies

The main policy lesson to be learned from the impact of the economic crisis on LDCs is that although they should not ignore short-term counter-cyclical measures, their ability to use such measures is limited as compared with other developing countries, and they need assistance in external financing. Expanding the domestic market by stimulating demand requires a significant and flexible economic structure and industrial base. Expanding South-South and

regional trade require industrialization as manufactured goods are the main engine of South-South trade (Shafaeddin, 2008). Thus, they need to make attempts to reduce their vulnerability to external shocks by changing their development strategies to expand the relative importance of their domestic market.

A more important lesson to learn from the current crisis is that the policies which most LDCs have followed under the pressure of the Bretton Wood Institutions and donors have increased their vulnerability to external shocks. To reduce such vulnerability, they should embark on long-term strategies and policies which are conducive, *inter alia*, to the diversification of their economies including attention to industrialization and agricultural development.

Indeed, the global crisis has encouraged reconsideration of longer-term development policies and strategies in LDCs, since the pattern of global growth are likely to undergo significant changes. In particular, there can be less reliance on the export markets of the developed countries and on direct investments from their firms. It is thus even more important for LDCs to build domestic economic capacity, to diversity their sources of production and growth and to expand their technological capability. This requires consideration of long-term policies on trade, industrial development and other areas, and generally of the appropriate roles of the state and market.

i. Diversity of LDCs

The diversity of LDCs, despite the fact that they show some common features, would imply that one cannot recommend a unique set of policies which would "fit all". The differences include the size of their populations, ranging from 10,000 in the case of Tuvalu to nearly 160 million in the case of Bangladesh; geographical locations and access to the sea; production and export capacity in manufactured goods; and their dependence on primary commodities. All of this entails considerable difference in the policies that need to be pursued. For example, for primary commodity exporting countries, the main issue is diversification of their production and export structure out of the primary sector. By diversification, we do not mean restricting production of primary commodities to reduce their importance in production and exports in absolute terms. We use diversification in a wider sense of the term. What is required is to use the commodity sector as a means of expanding industry and services, implying a decline in the share of the primary sector in GDP and exports. In this sense the use of windfall gains for investment for diversification is important, *inter alia*. For this purpose, there is a need for a development and industrial strategy for which the government has an important role to play.

For "manufacturer exporters" the key issue is upgrading the structure of production and exports of manufactures as they often depend heavily on a single product, e.g., clothing. Prices of manufactured goods produced by industrial countries are cost-determined. Nevertheless, in the case of developing countries where a large number of small countries export the same labour intensive product, such as clothing, the price determination of the products is similar to primary commodities. Its international price is demand-determined and thus subject to severe changes during the global economic crisis.

For small countries their size is one of the biggest constraints in developing a competitive manufacturing sector for producing goods for the domestic market. For remote island countries in the Asia-Pacific area and landlocked countries, transport is an additional concern which limits their prospects for integration into the world economy. While large countries, particularly those with access to the sea, have more room to manoeuvre in trade and industrial policies, landlocked countries and, in particular, small countries need regional cooperation with their neighbouring

countries to benefit from the division of labour and specialization in production and international trade.

Nevertheless, a few issues require general discussion in the consideration of LDCs' development strategies. These issues include the role of the government, the market and enterprises, trade and industrial policies and foreign direct investment, the role of regional integration and industrial collaboration, and export processing zones. Due to the importance of the commodity sector, the prospects for commodity prices and management of commodity booms are considered first.

ii. Prospects for commodity prices

The prospects for commodity prices have important implications for the development and industrial policies of most LDCs. Generally speaking, commodity booms ease the balance of payments and fiscal constraints of the exporting countries. However, in the case of net food importers they have a negative impact on their balance of payments and investment. In contrast, a trough in prices eases the pressure on the import bill of food importers but adds to their fiscal and balance of payments constraints as a result of the drop in prices of other commodities. Furthermore, the very fact of price instability creates uncertainty and risk for investment not only in the primary sector, but also in the manufacturing sector.

Different international organizations have come up with different forecasts for various commodity prices in the medium to long run. Nevertheless, they show fairly similar results as far as the future prices of some major food items (wheat, maize, rice, sugar and vegetable oil) are concerned. For example, a forecast by **OECD-FAO (2008)** indicates that their prices will recover in late 2009 and will remain above their 2006 levels[69] in the current and following decades, particularly in the case of vegetable oils. One reason given for the high prices predicted for these products is their use in the production of biofuels.

The **World Bank (2009)**, extrapolating from past decades (beginning in 1970) into the future, making some assumptions about the fall in GDP intensity of primary commodities and taking into account Engel's Law, concludes that in the long run, the prices of primary commodities will not be particularly high. This is because, it is argued, the growth in demand for commodities will ease[70] and "supplies of extracted commodities are likely to remain ample".[71] New reserves of petroleum would be found.[72] However, it does not rule out price increases in the medium term for minerals and food products.[73] A forecast by the IMF[74] indicates that the prospect for high prices is uncertain. Its medium forecast shows that with unchanged prices, demand for aluminium, copper and petroleum will recover significantly during 2009-13, reaching the 2006-07 average in the high growth scenario of the world economy and slightly below that average in a

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69 In 2006 the price index of food items was already over 48 per cent higher than that in 2003.

70 World Bank (2009), p. 59.

71 *Ibid*., p. 6.

72 *Ibid*., p. 7.

73 *Ibid*., p. 6.

74 IMF (2009,b), pp. 44-51.

low growth scenario. In the low growth scenario, it concludes, "capacity constraints are unlikely to put upward pressure on prices before 2012-13.[75]

There are so many assumptions in such forecasts, including assumptions on the timing and extent of the recovery in the global economy, that one cannot predict the prices of primary commodities with certainty. Nevertheless, a couple of points are worth emphasizing. First, clearly the future is uncertain. Secondly, it is likely that commodity prices will be more unstable in the future than in the past. This is because the instability in the business cycle in the world economy has increased during the last decade and is very likely to be intensified further unless the markets, and particularly financial markets, are adequately regulated.

Thirdly, in view of the growing weight of China, other East Asian developing countries and India in the world economy, and their relatively high predicted rate of growth, it is likely that there will again be a boom in commodity prices sooner or later. For example, according to a forecast by JP Morgan, in 2010 China will resume its 2008 rate of growth with GDP of 9 per cent and India will exceed its 2008 GDP of 6.1 per cent by 1.1 percentage points.[76]

Finally, the very increase in the instability of the world economy is likely to have a negative impact on investment in primary commodities, and therefore their supply and price stability.

Therefore, considering that there is a limit to the availability of short-term policy tools to LDCs to counter external shocks and instability, the formulation and implementation of long-term strategies will be even more important.

iii. Markets and Government

The financial crisis and the resulting global economic crisis is a wake-up call for LDCs as well as other developing countries to reconsider the "market oriented" approach to industrialization and development. Such an approach has been advocated by the international financial institutions and the so-called "Washington Consensus". They have already been imposed on developing countries not only through international financial institutions, but also through the WTO and bilateral donors. The LDCs are also under pressure from the EU to liberalize their foreign trade and internal markets further through EPAs. Yet, the recent global financial crisis has revealed that market forces have deficiencies even in industrialized countries, let alone developing countries, particularly LDCs.

The market is only one element in the coordination of economic activities. The "coordination system" consists of the market, firms and government, complemented and supported by "non-price factors" (institutions, infrastructure, information and back-up service.[77] Without the development of non-price factors, the market cannot operate efficiently. The price mechanism is slow to create markets and develop non-price factors. The market mechanism can deal with gradual and marginal changes. But it is an inadequate instrument for accelerating the growth of supply capacity and the promotion of dynamic comparative advantage. It also cannot

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75 *Ibid*., p. 50.

76 GP Morgan online, August 7th, 2009.

77 Shafaeddin (2005.b), Chapter 4.

make inefficient industries efficient and competitive, promote technological learning or the achievement of automatic technological upgrading. Hence, government intervention is required to complement market forces. Government actions and policies should complement the market, not replace it. The firm is a central force in the coordinating system since productive capacity is built up at the firm level.

The roles of each element of the coordination system, i.e. the market, enterprises and government, and their interactions, vary from one country to another and in each specific country over time in the process of development. LDCs face a dilemma as they are at early stages of development and industrialization. There is a great risk of market failure, entrepreneurship failure as well as government failure. There is often a vicious circle: the coordination mechanism fails because of the low level of development; there is a low level of development because of the weak coordination system. In breaking this vicious circle, the government must play a key role to create or improve the market, to increase the organizational capacity of the entrepreneurs, to develop complementary non-price factors and last, but not least, to enhance the capacity of the state machinery. In fact, the key to industrialization at early stages of development is to improve the learning capacity and efficiency of the government machinery in formulating, implementing, monitoring and correcting policies**.** At early stages of industrialization, the government may have to invest directly in areas where the private sector, including TNCs, is not prepared to take risks. As markets and enterprises develop, the role of the government in industrialization can decrease. The question is not a choice between market and government. It is to what extent and in what form the government should intervene to minimize government failure, and market failure and inadequacies. But it is also important to avoid unnecessary, rigid and prolonged intervention as markets and enterprises are developed. Both functional and selective government intervention are required for capacity building as well as upgrading of the industrial structure.

iv. Trade and industrial policies for large countries and countries involved in industrial collaboration

While both large and small countries need dynamic trade and industrial policies there is a crucial difference between the two, irrespective of their production capabilities. Highly populated countries have the added advantage of large potential domestic markets - although their industrial collaboration with others should not be ruled out. Small countries, particularly those which are in proximity with other countries, need to enter in collaboration with other countries, large or small, through production sharing if they opt for developing a competitive manufacturing sector. Thus trade and industrial policies can be applied to individual countries as well as a community of countries which enter into industrial collaboration with one another.

a. A framework for trade and industrial strategy

Assuming a country, or group of LDCs, has the wish to develop their industrial sector, a framework for an effective long-run industrial strategy is proposed. The constraints to its implementation will also be outlined.

As mentioned in section III, premature and across-the-board trade liberalization will likely lead to de-industrialization or at best the production and export of low-skill intensive products and assembly operations **(Shafaeddin, 2006.a).** The process of industrialization entails creating capacity, operating efficiently and upgrading the industrial structure. Such a process requires the country to develop its industries in accordance with the principal of "dynamic comparative advantage". The experience of all successful early and late industrializers indicates that industrial policy should be selective, mixed, dynamic, predictable and performance linked

(Shafaeddin, 2005.a and 2006.b). There are several reasons for the need for selectivity in the incentive structure in developing countries, particularly LDCs which are at early stages of development. These include stronger supply response to prices when prices increase for a few goods than when outputs of a sector are equally affected; scarcity of resources; the presence of different pecuniary and technological externalities, learning effects and linkages, in different industries; dynamic economies of time and scale in industries where scale is important; and strategic trade i.e. when trade in a product is manipulated, managed or targeted for support by foreign competitors**.**[78]

Policy dynamism implies that trade and industrial policies should be adaptable and flexible during the process of industrialization. Initially, some consumer goods, particularly those which involve externalities, should be chosen for capacity building with some support from the government, leaving their imported inputs free of duty. As these industries are developed, measures should be taken to make them efficient. While the production of these goods should be gradually liberalized, support is required for their entry into the international market. As these industries go through the second phase, the industrial policy should aim at the expansion of supply capacity for some other consumer goods or for intermediate products needed for the first group of industries. When these industries mature and enter the international market, they should be liberalized gradually. Subsequently, some inputs to the second group, such as sophisticated and durable consumer goods and machinery used in the production of the first group can be chosen for support. Such a rolling system involving a mixed process of protection and liberalization should continue until a competitive industrial structure is built up, export capabilities are developed and capacities for the efficient production of some machinery are acquired.

In such a dynamic process, the trade policy would consist of a mixture of protection and liberalization at each phase of industrialization. A hypothetical tariff structure for such an industrial strategy is shown in **Table 30**, in which industries are grouped according to their factor intensity. As the table shows, at each phase of industrialization some industries enjoy relatively high tariff rates. The average tariff rate initially increases gradually as more technology intensive products are chosen for development, but it begins to fall subsequently until it approaches zero eventually.

It is important that the incentives provided by the government should be linked to the performance of the firms in terms of cost reduction and quality improvement. Furthermore, the industrial strategy should involve both rewards and pressure. For example, competitive pressure should first be introduced in the domestic market and subsequently through gradual trade liberalization as mentioned above. In industries in which economies of scale are important, however, the competitive pressure should not be at the cost of production on an efficient scale until a minimum efficient scale of production is reached.

78 See Shafaeddin (2009), pp. 4-15 for details.

Table 30
Hypothetical evolution of average percentage tariffs for various groups of industries at different phases of industrialization

Phase	Factor intensity of industry				Manufactures (average)
	Resource-based, labour-intensive	Low technology	Medium technology	High technology	
I	20	0	0	0	5
II	10	40	0	0	12.5
III	0	30	50	0	20
IV	0	20	40	40	25
V	0	10	30	40	20
VI	0	0	15	25	10
VII	0	0	5	15	5
VIII	0	0	0	0	0

Source: Akyüz (2005), p. 27.

b. *Constraints and possibilities for implementing trade and industrial policies*

While the need for selectivity in promotion of industries in developing countries has increased for the reasons mentioned in Section III, the necessary policy instruments for industrial support in general, and for targeting in particular, have become less and less available. Nevertheless, there is still some room for manoeuvre, particularly in the case of LDCs.

As far as trade policy is concerned, the liberalization of trade under the Uruguay Round reduces the possibility of infant industry protection and targeting. The articles of the Uruguay Round's Agreements prohibit subsidies, including income and price supports, for export and production which are "specific to an enterprise or industry".[79] Nevertheless, LDCs may apply selective support for infant industries (**Rodrik, 2004**). For example, the bound tariffs for individual products are higher than applied tariffs, and subsidization of exports by countries with *per capita* incomes of less than US$1,000 are allowed by WTO rules. Most LDCs are in this category.

Yet there is continuous pressure on LDCs through bilateral trade agreements and conditionalities of International Financial Institutions for the reduction of tariff levels and their dispersion. Many LDCs may have to resort to the World Bank and IMF for financial help during the global economic crisis. Added to these pressures are the negotiations on Non-Agricultural Market Access (NAMA) at the WTO, and particularly those for the EPAs. As noted before, tf agreed upon, EPAs will lead to further de-industrialization of those countries which are at early stages of industrialization and development. They will also constrain the upgrading of the industrial structure of countries with some industrial and export capacity (**Shafaeddin, 2009**).

Therefore, LDCs should refrain from signing the EPAs as they are proposed by the EU, and resist further pressures through bilateral trade agreements and the IFIs. Nevertheless, this is

[79] Shafaeddin (2005.a), Chapter 8.

more easily said than done as LDCs are in a weak bargaining position. There is an urgent need for the revision of the policies of the Bretton Woods institutions, the WTO and bilateral donors.

v. Other factors

Installation of new capacity is necessary, but not sufficient. The installed capacity should be utilized efficiently. In technical terms a firm should be producing on a production possibility curve, and not inside it, which implies full utilization of installed capacity. If it does so, the firm will be "X-efficient". While competitive pressures and performance requirements, as mentioned earlier, contribute to X-efficiency, there are also other contributory factors inside and outside the firm. To explain further, achieving X-efficiency, i.e. efficient utilization of existing installed capacity, is important because it creates external economies for other firms while it also benefits from external economies created by the government as well as other firms. This is because organizational factors within the firm as well as institutional and infrastructural factors outside the firm contribute to achieving X-efficiency. When efficiency is achieved, it will spill over to other firms which may use the outputs of a firm as their inputs.

The upgrading of the production structure requires the development of technological and organizational capabilities and other skills at the firm level. The experience of China as well as other late industrializers, however, indicates that organizational, institutional and infrastructural factors and back-up services are also crucial **(Gallagher and Shafaeddin, 2009).**

Generally speaking, trade and industrial policies alone cannot succeed in the expansion of supply capacity, in the efficient use of the installed capacity and in upgrading of the production structure. In addition to COU (Creation, efficient Operation and Upgrading) of the supply capacity, there is a need for several INs (Investment, Input, Infrastructure, Institutions, Innovation and Information) **(Streeten, 1987)** and Ps (**P**olitical stability, **P**redictability of **P**olicies, **P**ressure for **P**erformance, **P**articipatory **P**olitics, **P**ublic-**P**rivate relations and respect for **P**roperty rights). There are also two INs to be avoided: **I**nstability in exchange rates and **I**nflation, which are related not only to macroeconomic policies, but also to control of capital flows and the development of agriculture.[80]

vi. The importance of agriculture development in industrialization

In the traditional literature on economic development, agriculture is supposed to contribute to industrialization by providing a surplus to invest in industrial capacity building, and supplying agricultural raw materials as inputs to the production process. However, in our view of the process of development, particularly at earlier stages of industrialization, the agricultural sector also makes another significant contribution to industrialization by providing an ample supply of foods. Food products are wage goods. Their availability contributes to the growth of GDP and MVA by easing inflation. It does so by easing the pressure on the balance of payments and supply of capital goods and imported intermediate goods which are necessary for industrialization and production. More importantly, as food constitutes the major item in the consumption basket of wage earners, its availability at low prices contributes to low wages, and therefore the competitiveness of the country in international markets. The experience of all industrial countries as well as East Asian newly industrializing economies (NIEs) indicates that attention to agricultural development has been an ingredient in their development and industrialization policies.

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[80] For more details see Shafaeddin (2005.a), pp. 26-27.

As far as LDCs are concerned, likely prospects for high food prices make the development of food products an urgent need. In the majority of LDCs food accounts for a significant proportion of their imports. According to UNCTAD, in 2006 the value of food imports was equivalent to nearly a quarter of the foreign exchange earnings from merchandise exports of LDCs and 2.75 per cent of their GDP (and it reached about 4.25 per cent of their GDP in 2008).[81] Manufacture exporting LDCs, in fact, spent about 30 per cent of their export earnings on import of foods in 2006. Yet despite this, nearly 30 per cent of their population are undernourished.[82]

Of course, one may argue that if a country has a comparative advantage in the production and export of manufactured goods and can afford to import food, there should not be a cause for concern. Nevertheless, in a country where foreign exchange is scarce, resources are unemployed and the country has the capacity to increase yields in food production, thus domestically produce food at low prices, development of the agricultural sector should be given special attention in its overall development and industrialization strategy. The increase in the supply of food could contribute to better nourishment of the work force. Improvement in the nutrition of the workforce and low prices of food in turn contribute to improvement in the workforce's health and productivity and reduce wages – and thereby increase competitiveness in the international market. Furthermore, the expansion of the domestic supply of food items involves external economies. Every dollar saved as a result of domestic production of foods provides extra resources for importing capital goods necessary for capacity building in the industrial sector. In 2006, in many LDCs, the value of imports of food items was equivalent to about a quarter of fixed capital formation.

Agricultural development requires ample overhead investment in such areas as transport and irrigation infrastructure, seed improvement, storage, agricultural extension facilities and back-up services in the upstream and downstream activities of the value chain of agricultural production **(ECA, 2009).**

The competitive pressure from cheap imports has been an important obstacle to the development of food production in developing countries. The combination of their liberalization of agricultural trade and low international prices due to agricultural subsidies provided by developed countries led to low prices of imported foods before the recent food crisis. Each year these countries provide nearly US$400 billion worth of subsidies to production and exports of their agricultural sector. This amount is equivalent to four times the total exports and about 90 times the exports of agricultural exporting LDCs in 2006. LDCs should resist further liberalization of their agriculture either through EPAs or the WTO.

vii. Industrial collaboration through regional cooperation

The experience of regional trade agreements among developing countries during the last half century indicates that countries benefit little from such agreements when all, or most of the members are LDCs. The main reason for the relatively small expansion of regional trade among LICs lies in similarities in the production and export structures of the countries concerned, as shown elsewhere **(Shafaeddin, 2008).** Even the manufactured exports of LDCs are concentrated

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81 UNCTAD (2009.a), Charts 17 and 18.

82 *Ibid*., Box Chart 4.

in one, or a few, labour intensive products, such as textiles and clothing, as mentioned earlier. Such products are among the first items of production on which LICs usually embark.

Table 31:
Intra-regional trade development in Africa

Regional groups	Value (US$ millions)			Share in exports (per cent)			Average annual growth rate by value	
	1980	2000	2006	1980	2000	2006	1980-2000	2000-06
CEMAC	75	96	245	1.6	1	**0.9**	2.4	**16.9**
COMESA	569	1,443	3,489	1.8	4.6	**4.2**	9.7	**15.8**
CEPGL	2	10	24	0.1	0.8	1.3	17.4	15.7
UMA	109	1,094	2,400	0.3	2.3	**2.0**	25.9	14
ECOWAS	661	2,715	5,957	9.6	7.6	8.3	15.1	13.9
UEMEOA	460	741	1,545	9.6	**13.1**	**13.1**	4.8	**13**
SADC	106	4,383	8,571	0.4	9.4	**9.1**	45.1	11.8
ECCAS	89	191	334	1.4	1.1	**0.6**	7.9	**9.7**
MRU	7	5	8	0.8	0.4	**0.3**	-3	**8.1**

Source: UNCTAD (2008.a), Table 1.4

Abbreviations: CEMAC: Economic and Monetary Community of Central Africa; COMESA: Common Market for Eastern and Southern Africa; UMA: Arab Maghreb Union; ECOWAS: Economic Community of West African States; UEMOA: West African Economic and Monetary Union; SADC: Southern African Development Community, ECCAS: Economic Community of Central African States; MRU: Mano River Union.

For example, despite the fact that East Asia has been a dynamic region during the last couple of decades, the LICs of this region and South-east Asia, most of which are members of one or more regional groups, have benefited little from regional trade agreements. Even Cambodia and Bangladesh, which are the most industrialized Asian LDCs **(see Table A.1)** showed a negative growth rate of exports to the region. Yet Bangladesh is a member of two regional groups and both Bangladesh and Cambodia are members of a number of bilateral trade agreements in the region as well.

Regional trade in Africa faces the same problem as in Asia. As is shown in **Table 31,** regional trade expanded to some extent during 1980-2000, following the establishment of trade agreements, particularly in the case of the Southern African Development Community (SADC). Nevertheless, the share of regional trade compared to the total trade of the region fell during the latter period, 2000-06. The noticeable expansion of regional trade in the case of SADC is mainly due to the involvement of South Africa, which has a more advanced industrial base than other member countries. When member countries of the regional groups trade with each other in accordance with their static comparative advantages, they exchange what they already produce. Free trade agreements, or preferential tariffs, may facilitate regional trade in products that are already produced in the member countries, provided the necessary back-up services and infrastructure are available. They are, however, in themselves, insufficient to encourage

production and trade in new products or to facilitate upgrading of the structure of production and exports. This is also clearly indicated by the pattern of trade of countries involved in bilateral trade agreements in Africa. Raw materials, particularly petroleum, are dominant items of trade among countries involved in 24 bilateral trade agreements in Africa. Again the only noticeable exception is South Africa. Of course, in addition to similarities in their production and export structures, landlocked countries also suffer from the added problem of high cost of transportation.

How can regional integration contribute to industrialization? The answer is that instead of trade leading to a division of labour and specialization, specialization and the division of labour in production should lead to trade expansion. This can be arranged through industrial collaboration, in accordance with the principle of dynamic, rather than static, comparative advantage, along with the provision of back-up services. For this purpose, concerted policy measures and efforts by the countries concerned are required for cooperation in building supply capacity. Market forces alone will not lead to such a division of labour.

LDCs have unemployed human resources which can be used for the expansion of production and trade in addition to what they already export to the North or other developing countries. Nevertheless, they suffer from the scarcity of skilled labour and other complementary factors of production necessary for such an expansion, as well as low effective demand.

Individual countries do not have sufficient resources to produce a large number of products. They can enter into an agreement for industrial collaboration and production sharing, whereby each country allocates scarce resources in a way that enables each to specialize in the production of a limited number of finished goods and exchange them with each other. Initially, trade among the countries involved could take place through the exchange of the new products produced even though they entail high production costs. Yet the exporting countries could gain increased employment, income and experience. Experience is gained more easily through specialization. An additional advantage of such industrial collaboration is the benefits arising from economies of scale. The combination of specialization, a larger market, economies of scale and experience contribute to a reduction of production costs over time. Therefore, they also can eventually export the products concerned to the third markets.[83]

Industrial collaboration can contribute to the creation of effective demand and at the same time remedy the problem of complementary factors of production. Industrial collaboration can be arranged by neighbouring, particularly landlocked countries, around their border areas or between small and island countries which are in proximity with other countries, including non-LDCs.

To sum, for the development of the industrial capacity of individual countries, specialization and division of labour are crucial. Division of labour here means not only sharing the market, but also specializing in the production of different products. Each country will specialize in production of one or a few parts and components of a product for assembly operation. Production of parts and components as well as assembly operation for different products will be shared through production sharing among the countries involved. Of course, in arranging industrial collaboration, the characteristics, economic structure and capabilities of specific countries need to be taken into account. It also requires the development of technological capabilities and other skills and the harmonization of trade and industrial policies among the countries involved. There is also a need for appropriate rules of origin. Furthermore, the product to be chosen for industrial collaboration should be identified; the processing of raw materials

[83] Shafaeddin (2008), p. 42.

before exporting to other countries of the region could be one possibility, but it is not the only one. The United Nations Industrial Development Organisation (UNIDO) can assist the countries concerned in the above issues, including studying the feasibility, modalities and choice of products for industrial collaboration, providing technical and technological training etc.

For the purpose of industrial collocation, the countries concerned may also use FDI and create EPZs. Nevertheless EPZs here should contribute to the industrial collaboration programmes. Furthermore, both FDI and EPZs should be conducive to the industrial strategy of the countries concerned.

viii. The role of FDI

FDI may provide certain skills and an important marketing channel for the exports of LDCs. Furthermore, it is maintained that when an economy opens up to trade and FDI, an initial period of imitation will lead to a large catch-up opportunity followed by a shift towards innovation "as the knowledge gap is reduced and the economy's technical maturity rises" . However, least developed countries attract little FDI, particularly to their manufacturing sector, despite their liberalization of foreign investment regimes and the provision of incentives for their attraction. Table **32** provides data on the inflow of FDI to LDCs in 2007 in absolute terms, when it was at its highest level. Accordingly, first of all FDI accounts for less than 15 per cent of their gross fixed capital formation.[84] Secondly, while LDCs account for over 14 per cent of the population of developing countries, in 2007 they attracted only 2.3 per cent of the inflow of FDI to developing countries as a whole; their *per capita* FDI inflow is only about 15 per cent that of other developing countries. Thirdly, FDI in LDCs is concentrated in primary commodities. The manufacturing exporters show the smallest FDI per capita among various groups in the table.[85] By contrast, petroleum and other minerals exporters received nearly half of the inflow of FDI to LDCs and figure the highest in terms of FDI inflow per capita.

In recent years, China has been active in investing in the mineral sector in Africa, including African LDCs, in order to secure the supply of primary commodities for its industrialization. For example, it has invested in petroleum in Angola and the Sudan, in copper in Zambia and in nickel and cobalt in the Congo. More recently, some intra-African FDI in the textiles and clothing sector of African LDCs has taken place. For example, Mauritian, South African and Libyan firms invested small amounts in Madagascar, Lesotho and Uganda, respectively. Some investment by foreign firms has also taken place in the financial and telecommunications sectors by purchasing local firms.[86] Investment in the public utilities and infrastructure of LDCs is not however significant. Its share in total inward FDI was about 26 per cent in 2006.[87]

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84 UNCTAD (2008.c), Table B.3.

85 For the earlier periods see also UNCTAD (2005.b).

86 UNCTAD (2008.c), pp. 42-3.

87 *Ibid*., Table A.III.1.

Table 32
FDI inflow to various groups of LDCs in 2007

Main export	No. of countries	Population Millions	Population per cent	US$ millions	Value percent	$ *per capita*
Petroleum & gas[a]	6	142.6	18.1	3,486	29.9	24.4
Other mineral	9	88.8	11.3	1,728	18.1	19.4
Agriculture	10	107	13.6	1,613	14.3	15.1
Manufactures	7	209	26.6	1,802	15.4	8.6
Services	12	139.4	17.7	1,468	12	10.5
Diversified	4	43.5	5.5	1,144	9.8	26.2
Total above	48	731.3	92.8	11,678		15.9
Sudan and Angola	2	54.3	7.1	n.a.		n.a.
Total LDCs	50	758.6	100	11,678[b]		15.9
Total developing countries		5,358.9[c]		499,747		93.2
Other developing countries:		**4,600.3**[c]		**488,069**		**106.9**
Share of LDCs in developing countries			14.1		2.3	

a: 2006; excludes the Sudan and Angola.
b: UNCTAD's estimate for total LDCs is $13,375m; the above figures exclude Sudan and Angola.
c. 2007; includes China.
Source: Calculations based on UNCTAD (2008.c)

A few factors are responsible for the lack of attraction of FDI and the lack of its contribution to the development of local firms and local economies in LICs, particularly their manufacturing sectors. These factors include the weak capabilities of domestic firms, low skills and productivity, the lack of infrastructure and back-up services.

The question is, "Does FDI contribute to bridging the knowledge gap and raising technical maturity?" as claimed by **Elkan (1996)** and others. In fact, a test of the impact of FDI on the industrialization of a developing country is its impact on the development of local capabilities through spill-over channels of demonstration effects, learning effects and linkage effects **.** Such capabilities can be influenced, *inter alia,* by experience, skill development and the accumulation of knowledge by the labour force of the host country. Generally speaking, the findings of the literature on the spill-over effects of FDI on the host country are mixed.[88] In countries where the government has developed the capabilities of national firms, managed and targeted FDI, supported R&D and technological development and training etc, the country has benefited from FDI in its industrialization. On the other hand, where the government has followed hands-off policies, domestic capabilities have not developed much. The contrasting experience of Ireland with Costa Rica **(Paus, 2005**) and China with Mexico **(Gallaher and Shafaeddin, 2009, Gallaher and Zarsky, 2007 and Shafaeddin and Pizarro, 2009**) provide good indications in this respect. The experience of both Mexico and Costa Rica reveals that liberalizing FDI and leaving the activities of TNCs to the operation of market forces will not raise the domestic

[88] For a comprehensive review of this literature see Görg and Greenaway (2004).

capabilities for enhancing industrialization and development. By contrast, China and Ireland have succeeded in considerable development of technological capabilities of their own local firms because of the active role of their governments. In other words, to benefit from FDI, there is a need for the development of the capabilities of the national firms. Such development requires nurturing **(Lall, 2005).**

ix. EPZs and industrialization

The potential contribution of FDI in export processing zones (EPZs) to industrialization also depends on an active role for the government. EPZs can contribute to industrialization if they are arranged within the context of the industrial strategy of the country, or countries which get involved in industrial collaboration. According to the latest data available by ILO, there are 3,500 EPZs and similar types of zones in 130 countries, out of which 155 operate in Africa (90 in Sub-Saharan Africa and 65 in North Africa) and 50 in the Middle East. The successful ones are, however, only a handful. For example in Africa and the Middle East, only two countries are regarded as successful: the United Arab Emirates and Mauritius. The UAE's is basically a free trade zone rather than an EPZ, as little processing takes place in the country.

While Mauritius achieved export expansion for some time with the support of the government, it has had limited success in upgrading its industrial structure despite over three decades of involvement in an EPZ. The country first started its EPZ in 1971. It was a tiny country of less than a million people with heavy dependence on the production and export of sugar. In 2006, manufactured goods constituted nearly 67 per cent of its exports.

Table 33
The structure of manufacturing output in Mauritius (1995-2004)

Product Groups	1995	2004
Food, beverages and tobacco	25	24
Textiles and clothing	52	51
Machinery and transport equipment	2	2
Other manufacturing and unallocated data	21	24

Source: World Bank, *World Development Indicators*, 2008, Table 4.3.

Initially, Mauritius managed to increase its exports fast by concentrating on the production of textiles and clothing. Total exports increased at an average annual rate of 14.4 per cent during the 1980s, but the corresponding rate declined to 4.3 per cent in the 1990s and 1.82 per cent during 2000-07. In 2007, when the exports of developing countries expanded by nearly 15 per cent, the figure for Mauritius was in fact negative (-11.9 per cent).[89] The termination of the Multi Fibre Agreement (MFA) at the end of 2004, which had imposed quotas on the amounts developing countries could export to developed countries, was an important factor.

Mauritius began to update its export structure by diversifying in the production of telecommunications equipment in the early 21st century in anticipation of the termination of the MFA. The country needs, however, to make efforts to diversify and upgrade its production and export structure further as it has also lost its privileged position in the EU market for its export of

[89] UNCTAD (2008.a), Tables1.1.1 and1.2.1.

sugar. As is shown in Table 33, the latest available data indicate that the country's achievement in upgrading its production structure is not impressive.

Despite such a shortcoming, Mauritius has been more successful in its EPZ operation than other African countries. Neo-liberal analysts attribute the success of the country in its growth of exports and GDP to its implementation of structural adjustment and open door policies (**Sachs and Warner, 1995 and 1997**). This is a simplistic and distorted view. Mauritius pursued a complex strategy somewhat closer to the East Asian NIEs. First, the country remained a highly protected economy during the 1970s and 1980s, when the effective rate of protection exceeded 100 per cent before being reduced to 65 per cent in the late 1980s.[90] Even until the late 1990s, the nominal tariff rate on manufactured goods exceeded 31 per cent on average. For light manufactured goods, it was even higher, at 34 per cent.[91]

Secondly, the export sector in the EPZ enjoyed a number of privileges, including free access to imported inputs, tax holidays (which are a sort of subsidy) and the low wages of women who have been the main employees in the EPZ. In other words, the trade policy incentive was neutral for exports and imports, but there was a high level of government intervention.

Thirdly, government intervention did not stop at trade policy and fiscal measures or provision of incentives to domestic firms. The government took other measures including institutional arrangements and incentives to domestic firms to operate in the EPZ alongside TNCs. Only 12 per cent of the total employment and 50 per cent of the total equity of firms were accounted for by foreign firms. A number of other measures and institutional arrangements were also made to enhance the capability of domestic firms to promote exports. Further institutional and organizational arrangements were made by the government to enhance its own capabilities in promoting investment, developing and operating industrial sites and estates, and planning and reviewing export oriented arrangements.[92]

Finally, the country enjoyed preferential market access to Europe and the USA through the MFA and followed a competitive exchange rate policy (**Subramanian, 2009**). Participatory politics was another factor in the management of conflicts of interest among the diverse ethnic groups in the country.

Some of the policy instruments which were available to Mauritius are no longer available to LDCs because of the changes in international trade rules, but they still have some room to manoeuvre for the expansion of supply capabilities as mentioned before. Furthermore, they benefit from privileged access to markets in developed countries, for example, to the USA through the African Growth and Opportunity Act (AGOA). Moreover, through regional agreements they can benefit from preferential arrangements for production through industrial collaboration as explained above.

In short, policies for increasing the contribution of FDI to industrialization and development, whether or not through EPZs, should address two issues: the management of FDI and its direction to specific sectors and industries which can provide linkages and can spill-over to other sectors; and enhancing the capabilities of domestic firms, *inter alia*, by functional and selective intervention. The question again boils down to the industrial strategy of the country.

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90 Subramanian (2009), p. 9.

91 UNCTAD (2008.a), Table 4.3.

92 See http://fdimagazine.com/news, October 20th, 2004).

In relation to the case of remote island countries, these islands have transport problems, despite their access to the sea, because of the small scale of their volume of trade in relation to the capacity of cargo ships. Most of these islands depend on tourism. They may consider following a policy consisting of foreign reserve management and specialization in various types of tourism. For example, some may specialize in sports tourism, others in health, luxury tourism, academic tourism, etc. Furthermore, they may invest in areas which provide backward linkages to the tourism sector such as food processing. Those which are in close proximity with each other may also arrange some production sharing.

Appendix 1

Table A.1:
Main characteristics of Least Developed Countries (2006)

Export group & countries	Character-istics	Population (millions)	Manu-facturing/ GDP (per cent)	Exports (US$ millions)	Manu-factured Exports/ Total Exports (per cent)	Exports/ GDP (per cent)	Imports/ GDP (per cent)	Exports-Imports/ GDP (per cent)	Accumu-lated Debts/GDP (per cent) (2005)	Debt Service/ Exports (2005)
Petroleum & Natural Gas		**197.1**	**5.94**	**58,894.3**	**5.55**	**41.64**	**32.86**	**8.78**	**43.83**	**5.75**
D. Rep. of Congo	8, H	60.6	5.4	2,300.2	2.3	31.38	42.63	-11.25	131.1	8.3
Myanmar	7	48.4	9.3	4,863.3	18.8	0.12	0.07	0.04	..	..
Sudan	6, H	37.7	8.3	5,478.7	2.9	27.10	23.55	3.55	51.2	5.9
Yemen	5,	21.7	6.4	6264	2.8	47.23	44.93	2.31	29.2	..
Angola	4	16.6	3.8	33,795	0.3	74.21	46.83	27.38	21.2	7.6
Chad	4, L, H	10.5	6.7	2,274.7	2.5	55.74	27.45	28.29	27.1	1.2
East Timor	2, I	1.1	2.6	114.1	10.7	2.22	39.72	-37.50	..	..
Equ.Guinea	1, L	0.5	5	3,804.3	4.1	95.13	37.70	57.43	3.2	..
Other Minerals		**88.8**	**8.49**	**10,699.7**	**6.48**	**25.21**	**36.59**	**-11.38**	**66.57**	**9.09**
Mozambique	5, H	21	13	2,381.1	5.6	42.28	37.49	4.80	47.8	2.3
Niger	4, H	13.7	6.5	355.7	7.1	18.94	31.57	-12.64	22	..
Mali	4, L, H	12	9	1,476.6	5.2	28.62	34.64	-6.01	24.5	3.7
Zambia	4, L, H	11.7	11.2	3,770.4	16	18.77	26.71	-7.94	21.7	4.7
Guinea	3, H	9.2	4.1	976.2	10.8	26.12	36.15	-10.02	98.9	12.2
Burundi	3, L, H	8.2	13.2	120.1	2.4	9.25	39.34	-30.09	156.2	39.6
Sierra Leone	3, H	5.7	2.5	216.6	8.2	16.50	40.01	-23.51	98.5	6.2
C.A. Republic	2, L, H	4.3	11.2	144.3	1.5	11.51	22.60	-11.09	68.3	0.3
Mauritania	2, H	3	5.7	1,258.7	1.5	54.91	60.81	-5.90	61.2	3.7
Agriculture		**107**	**8.48**	**4,408.9**	**10.11**	**25.81**	**44.90**	**-19.09**	**100.76**	**12.38**
Uganda	5, L, H	29.9	9	962.2	9.1	14.41	32.16	-17.74	13.4	9.4

Afghanistan	5, L, H	26.1	14.7	179.6	17.4	32.88	80.94	-48.06	21.1	..

Table A.1 continued

Export group & countries	Character-istics	Population (millions)	Manu-facturing/ GDP (per cent)	Exports (US$ millions)	Manu-factured Exports/ Total Exports (per cent)	Exports/ GDP (per cent)	Imports/ GDP (per cent)	Exports-Imports/ GDP (per cent)	Accumu-lated Debts/GDP (per cent) (2005)	Debt Service/ Exports (2005)
Burkina Faso	4, L, H	14.4	13.3	482.9	8.3	9.11	23.96	-14.84	18.5	6.2
Malawi	4, L, H	13.6	11.6	668.4	13.2	24.30	55.32	-31.02	26.9	11.1
Benin	3, H	8.8	8.3	283.1	6.5	18.52	27.81	-9.29	17.3	..
Somali	3, H	8.4	2.5	160.8	6.4	0.31	1.69	-1.38	..	..
Liberia	2, H	3.6	10.2	1,490.2	8.3	33.88	46.62	-12.75	423.8	..
G-Bissau	2, H	1.6	..	83.9	14.2	35.36	49.53	-14.17	233.6	22.8
Kiribati	1, I	0.1	0.8	6.3	16.3	30.24	71.89	-41.65	..	..
Solomon Is	1, I	0.5	5.9	91.5	1.4	59.08	59.12	-0.04	51.5	..
Manufactured		**209.8**	**11.60**	**18,259**	**68.09**	**30.64**	**64.34**	**-33.69**	**44.05**	**5.95**
Bangladesh	9, H	156	16.6	11,962.6	80.8	17.98	25.54	-7.55	33.2	6.5
Nepal	5, L, H	27.6	7.5	759.7	48.5	18.55	37.72	-19.17	38.1	9.6
Cambodia	4	14.2	20.9	3,990.5	73	68.97	78.61	-9.64	48.6	0.4
Haiti	3, H	9.4	7.8	522.6	70.2	14.25	43.12	-28.87	23.9	6.4
Lesotho	2, L	2	17.4	671.9	69.3	41.83	86.70	-44.86	44.8	10.6
Bhutan	1, L	0.6	7.6	348.2	47.6	40.36	64.66	-24.30	75.7	2.2
Tuvalu	1, I	0 [10,000]	3.4	3.5	87.2	12.56	114.00	-101.44	..	..
Services		**139.4**	**6.43**	**3,297**	**6.66**	**30.15**	**57.61**	**-27.45**	**85.82**	**8.97**
Ethiopia	8, L, H	81	4.6	1,043	2.6	15.10	32.62	-17.52	17.5	3.8
Tanzania	6, H	39.5	6.9	1,689.9	3.5	23.51	32.86	-9.35	33.2	2.4
Rwanda	3, L, H	9.5	9.2	135.4	4.4	9.59	34.52	-24.93	16.8	6.7
Eritrea	3, L, H	4.7	10.4	11.2	2	5.15	42.27	-37.12	73.7	23.2
Gambia	2, H	1.7	5.3	11.5	3.7	51.49	69.92	-18.43	142	..
Comoros	1, I, H	0.8	4.2	7.5	3.7	12.06	30.78	-18.72	69.9	8.1
Djibouti	1	0.8	2.8	18.9	1.2	42.19	54.88	-12.68	60.3	4.4
Cape Verde	1, I	0.5	4.6	110.3	7.1	16.34	51.82	-35.49	52.5	14.2

Maldives	1, I	0.3	6.6	135.6	5.4	82.60	105.91	-23.31	49.5	..
Samoa	1, I	0.2	15.2	84.9	36.9	30.19	53.91	-23.71	202.5	..
Sao T.&Principe	1, I	0.2	3.9	3.9	1.1	30.74	123.08	-92.33	289.7	..
Vanuatu	1,I	0.2	3.5	44.9	8.3	42.88	58.69	-15.82	22.2	..

Table A.1 continued

Export group & countries	Character-istics	Population (millions)	Manu-facturing/ GDP (per cent)	Exports (US$ millions)	Manu-factured Exports/ Total Exports (per cent)	Exports/ GDP (per cent)	Imports/ GDP (per cent)	Exports-Imports/ GDP (per cent)	Accumu-lated Debts/GDP (per cent) (2005)	Debt Service/ Exports (2005)
Diversified		**43.5**	**14.45**	**3,736**	**31.50**	**31.25**	**42.29**	**-11.04**	**54.20**	**8.23**
Madagascar	7, H	19.2	15.4	1,008.2	29.1	27.39	40.40	-13.02	26.4	4.1
Senegal	4	12.1	16.2	1,491.6	26.6	26.56	43.53	-16.97	21.6	7.2
Togo	3, H	6.4	6.1	359.7	37.9	39.08	56.21	-17.14	81.9	..
Laos	3, L	5.8	20.1	876.5	32.4	31.98	29.02	2.96	86.9	13.4

Notations: H : heavily indebted; L: landlocked; numbers refer to population groups: 1: less than 1 million; 2: 1m-5m.; 3: 5m-10m; 4: 10m-20m.; 5: 20m-30m.; 6: 30m-40m.; 7: 40m-50m.; 8: 50m-100m; 9: more than 150m.

Source: Based on UNCTAD (2008.b), various tables and (2008.a), Table 8.3.1.

Appendix 2

Table A.2:
Population of LDCs in 2006

Population (millions)	No. of countries	Countries	
		Africa & Haiti	Asia
Less than one	13	Cape Verde, Comoros, Djibouti, Equ. Guinea, Sao Tome & Principe,	Bhutan, Maldives, Vanuatu, Tuvalu, Solomon Islands, Kiribati, Samoa
1-5	7	Central African Rep., Eritrea, Gambia, Lesotho, Liberia, Mauritania	East Timor
5-10	10	Benin, Burundi, Guinea, Haiti, Mali, Rwanda, S. Leone, Somalia, Togo	Laos
10-20	9	Angola, B. Faso, Chad, Madagascar, Malawi, Niger, Senegal, Zambia	Cambodia
20-30	5	Mozambique, Uganda	Afganistan, Nepal, Yemen
30-40	2	Sudan, Tanzania	
40-50	1		Myanmar
50-10	2	Congo, Ethiopia	
>150	1		Bangladesh

Source: Based on UNCTAD (2008.b).

Appendix 3

Table A.3:
Projected Annual Growth Rate of GDP for Individual LDCs (2008-09)

Countries	Year		Countries	Year	
Africa	**2008**	**2009**	**Island**	**2008**	**2009**
Equatorial Guinea	11.3	-5.4	Maldives	5.7	-1.3
Angola	14.8	-3.6	Comoros	1	0.8
Madagascar	5	-0.2	Kiribati	3.4	1.5
Lesotho	3.5	0.6	Cape Verde	5.9	2.5
Haiti	1.3	1	Vanuatu	6.6	3
Eritrea	1	1.1	Samoa	4.5	4
Togo	1.1	1.7	Solomon Islands	7.3	4
Guinea-Bissau	3.3	1.9	Sao Tome and Principe	5.8	5
Mauritania	2.2	2.3	East Timor	12.8	7.2
Central African Republic	2.2	2.4	Tuvalu	..	..
Guinea	4	2.6	**Average Island**	**5.89**	**2.97**
Dem. Rep. of the Congo	6.2	2.7			
Chad	-0.4	2.8	**Asia**		
Niger	9.5	3	Cambodia	6	-0.5
Senegal	2.5	3.1	Nepal	4.7	3.6
Burkina Faso	5	3.5	Laos	7.2	4.4
Burundi	4.5	3.5	Myanmar	4.5	5
Benin	5	3.8	Bangladesh	5.6	5
Mali	5	3.9	Bhutan	6.6	5.7
Gambia	5.9	4	Yemen	3.9	7.7
Sudan	6.8	4	Afghanistan	3.4	9
Zambia	6	4	**Average Asia**	**5.24**	**4.99**
Mozambique	6.2	4.3			
Sierra Leone	5.5	4.5	**All LDCs**	**5.72**	**3.3**
Liberia	7.1	4.9			
Tanzania	7.5	5			
Djibouti	5.8	5.1			
Rwanda	11.2	5.6			
Uganda	9.5	6.2			
Ethiopia	11.6	6.5			
Malawi	9.7	6.9			
Somalia	..	..			
Average Africa	**5.8**	**2.96**			

Source: IMF (2009.b).

Appendix 4

List of LDCs included in Table 21
IMF, *World Economic Outlook*

Africa and Haiti	**Asia**	**Islands**
Angola	Bangladesh	Comoros
Benin	Bhutan	Kiribati
Burkina Faso	Cambodia	Maldives
Burundi	Laos	Samoa
Central African Republic	Myanmar	Sao Tome and Principe
Chad	Nepal	Solomon Islands
Democratic Republic of the Congo	Yemen	Vanuatu
Djibouti		
Equatorial Guinea		
Eritrea		
Ethiopia		
Gambia		
Guinea		
Guinea-Bissau		
Haiti		
Lesotho		
Madagascar		
Malawi		
Mali		
Mauritania		
Mozambique		
Niger		
Rwanda		
Senegal		
Sierra Leone		
Sudan		
Tanzania		
Togo		
Uganda		
Zambia		

Note: The list above is according to countries and data in the IMF's World Economic Outlook (April 2009).

Appendix 5: Risk of Debt Distress and HIPC Status (As of July 2009). Source: IMF(2009b)

Country	HIPC Status	Risk rating under the LIC DSF	Indication of increased debt vulnerability
Afghanistan	Interim country	High	Yes
Burkina Faso 2/	Post-completion point country	High	
Burundi	Post-completion point country	High	
Congo, Republic of 2/	Interim country	High	
Côte d'Ivoire	Interim country	High	
Djibouti	Non-HIPC	High	
Dominica 2/	Non-HIPC	High	
Gambia, The	Post-completion point country	High	
Grenada 2/	Non-HIPC	High	
Haiti 2/	Post-completion point country	High	
Lao, PDR 2/	Non-HIPC	High	
São Tomé and Príncipe	Post-completion point country	High	
Tajikistan	Non-HIPC	High	
Yemen	Non-HIPC	High	
Angola	Non-HIPC	Moderate	
Benin 2/	Post-completion point country	Moderate	
Bhutan	Non-HIPC	Moderate	
Cambodia	Non-HIPC	Moderate	
Central African Republic 2/	Post-completion point country	Moderate	
Chad	Interim country	Moderate	
Ethiopia	Post-completion point country	Moderate	Yes
Georgia 2/ 3/	Non-HIPC	Moderate	Yes
Ghana 2/	Post-completion point country	Moderate	
Kyrgyz Republic	Pre-decision point country	Moderate	
Lesotho	Non-HIPC	Moderate	Yes
Malawi	Post-completion point country	Moderate	Yes
Mauritania	Post-completion point country	Moderate	Yes
Nepal	Non-HIPC	Moderate	Yes
Nicaragua	Post-completion point country	Moderate	Yes
Niger	Post-completion point country	Moderate	
Papua New Guinea	Non-HIPC	Moderate	
Rwanda 2/	Post-completion point country	Moderate	
St. Lucia 2/	Non-HIPC	Moderate	
Grenadines	Non-HIPC	Moderate	Yes
Sierra Leone	Post-completion point country	Moderate	Yes
Sri Lanka 2/	Non-HIPC	Moderate	
Armenia	Non-HIPC	Low	
Bangladesh	Non-HIPC	Low	Yes
Bolivia	Post-completion point country	Low	
Cameroon 2/	Post-completion point country	Low	
Cape Verde	Non-HIPC	Low	Yes
Honduras	Post-completion point country	Low	
Kenya	Non-HIPC	Low	
Madagascar	Post-completion point country	Low	
Mali	Post-completion point country	Low	Yes
Moldova	Non-HIPC	Low	Yes
Mongolia	Non-HIPC	Low	Yes
Mozambique 2/	Post-completion point country	Low	
Nigeria	Non-HIPC	Low	
Senegal 2/	Post-completion point country	Low	
Tanzania	Post-completion point country	Low	
Uganda	Post-completion point country	Low	
Vietnam	Non-HIPC	Low	
Zambia	Post-completion point country	Low	
Comoros	Pre-decision point country	In debt distress	
Congo, Democratic Republic	Interim country	In debt distress	
Guinea	Interim country	In debt distress	
Guinea-Bissau	Interim country	In debt distress	
Liberia	Interim country	In debt distress	
Sudan	Pre-decision point country	In debt distress	
Togo	Interim country	In debt distress	

Source: Fund staff calculations.

1/For all countries included in Appendix I, except Azerbaijan, India, Maldives, Pakistan and Uzbekistan, for which LIC DSAs are unavailable or were not produced because countries had significant market access. Also excludes countries that did not provide publication consent.

2/ No simulations were undertaken as a DSA was issued after June 1, 2009.

3/ In its most recent DSA, Georgia's risk of debt distress deteriorated from low to moderate, reflecting the impact of the ongoing crisis and the conflict.

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