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Part Two: Chapter 5

TRADE LIBERALIZATION AND POVERTY REDUCTION IN THE LDCs

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Trade Liberalization and Poverty Reduction in the LDCs

A. Introduction

The present chapter focuses on the major trade policy — trade liberalization — that LDC Governments have adopted in recent years, and examines whether or not the implementation of this policy is likely to link international trade more effectively to poverty reduction in the LDCs. The chapter is organized into five main sections. Section B describes the extent and depth of trade liberalization in the LDCs, using the IMF's index of trade restrictiveness to measure the degree of openness of their economies. Section C describes the process of liberalization in the LDCs, including its sequencing, timing and speed. Section D discusses trends in poverty during and immediately after trade liberalization in the LDCs. The two subsequent sections examine the extent to which trade liberalization has affected prospects for sustained and substantial poverty reduction discussing: first the issue of the sustainability of economic growth (section E), and then the issue of the inclusiveness of economic growth (section F). The concluding section summarizes the main findings.

B. The depth and extent of trade liberalization

The depth and extent of trade liberalization in the LDCs can be gauged using the IMF index of trade restrictiveness, which classifies countries according to their average tariff rate and their extent of use of non-tariff barriers (NTBs). In 2002, on the basis of this evidence, of 46 LDCs for which data were available,

- The average tariff rate of 42 was less than 25 per cent;

- The average tariff rate of 36 was less than 20 per cent;

- The average tariff rate of 23 was less than 15 per cent;

- In 29 LDCs, NTBs were absent or insignificant in the sense that less than 1 per cent of production and trade was subject to NTBs; and

- In 28 LDCs there were no or insignificant NTBs, and average tariff rates were below 25 per cent.

To put these numbers in perspective, it is worth comparing the level of trade restrictiveness in the LDCs with other developing countries, and also with the level of trade restrictiveness in the EU, Japan and the United States, measured by the same index. Chart 32 shows the frequency distribution of the import restrictiveness index in the LDCs and other developing countries in 2002 using the IMF's classification system. From the chart, it is clear that the LDCs have undertaken greater trade liberalization than other developing countries. According to this measure, most of the LDCs have also undertaken deeper trade liberalization than the large industrializing Asian and Latin American economies. The average index for LDCs as a group was 4, which the IMF regards as "open", and it is exactly the same as the average for the EU, Japan and the United States.

The LDCs have undertaken greater trade liberalization than other developing countries.

CHART 32. TRADE RESTRICTIVENESS FOR LDCS AND OTHER DEVELOPING COUNTRIES, 2002
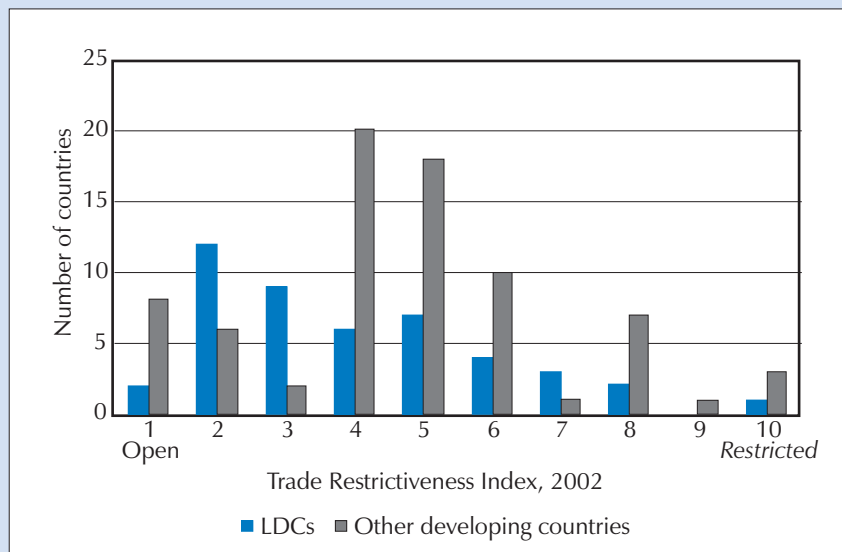
Source: UNCTAD secretariat estimates, based on IMF index of trade restrictiveness.

Note: The index is based on the following classification schemes:

Tariffs	*Open*	*Moderate*	*Restrictive*
Open	1	4	7
Relatively open	2	5	8
Moderate	3	6	9
Relatively restrictive	4	7	10
Restrictive	5	8	10

Tariffs are classified as follows:

Open: average tariff range 0≤t<10 per cent. Relatively open: average tariff range 10≤t<15 per cent. Moderate: average tariff range 15≤t<20 per cent. Relatively restrictive: average tariff range 20≤t<25 per cent. Restrictive: average tariff range 25 per cent or over.

*Non-tariff barriers are classified as follows:*

Open: NTBs are either absent or minor, and less than 1 per cent of production or trade is subject to NTBs. Moderate: NTBs are significant, covering at least one important sector of the economy but not pervasive, and between 1 per cent and 25 per cent of production or trade is subject to NTBs. Restrictive: many sectors or entire stages of production are covered by NTBs, and more than 25 per cent of production or trade is subject to NTBs.

Data were not available for Afghanistan and Somalia, for LDCs; and for Palau and Tonga, for other developing countries.

There is deeper trade liberalization in the African LDCs than in the Asian ones, and also in the commodity-exporting LDCs than in the manufactures- and/or services-exporting LDCs.

Among the LDCs, there is deeper trade liberalization in the African LDCs than in the Asian ones (chart 33A), and also in the commodity-exporting LDCs than in the manufactures- and/or services-exporting LDCs (chart 33B). This is an intriguing pattern, as, in general, the export performance of the Asian LDCs has been better than that of the African LDCs, usually because of their greater specialization in manufactured exports. However, it would be wrong to think that because the Asian LDCs have more restricted trade regimes, according to the IMF classification, no trade liberalization has occurred there. Bangladesh and the Lao People's Democratic Republic, for example, both undertook extensive trade liberalization in the 1990s. The mean tariff on all products in Bangladesh declined from 114 per cent in 1989 to 22 per cent in 1999 (Khondker and Mujeri, 2002). In 1995, a major tariff liberalization occurred when the Lao People's Democratic Republic's tariff schedule, which had a maximum ad valorem rate of 150 per cent, was replaced by a schedule which had 6 bands, i.e. the number of different tariff rates, and a maximum rate of 40%. (Fane, 2003).

CHART 33. TRADE RESTRICTIVENESS FOR AFRICAN AND ASIAN LDCS AND FOR COMMODITY EXPORTING
AND MANUFACTURES AND/OR SERVICES EXPORTING LDCS, 2002
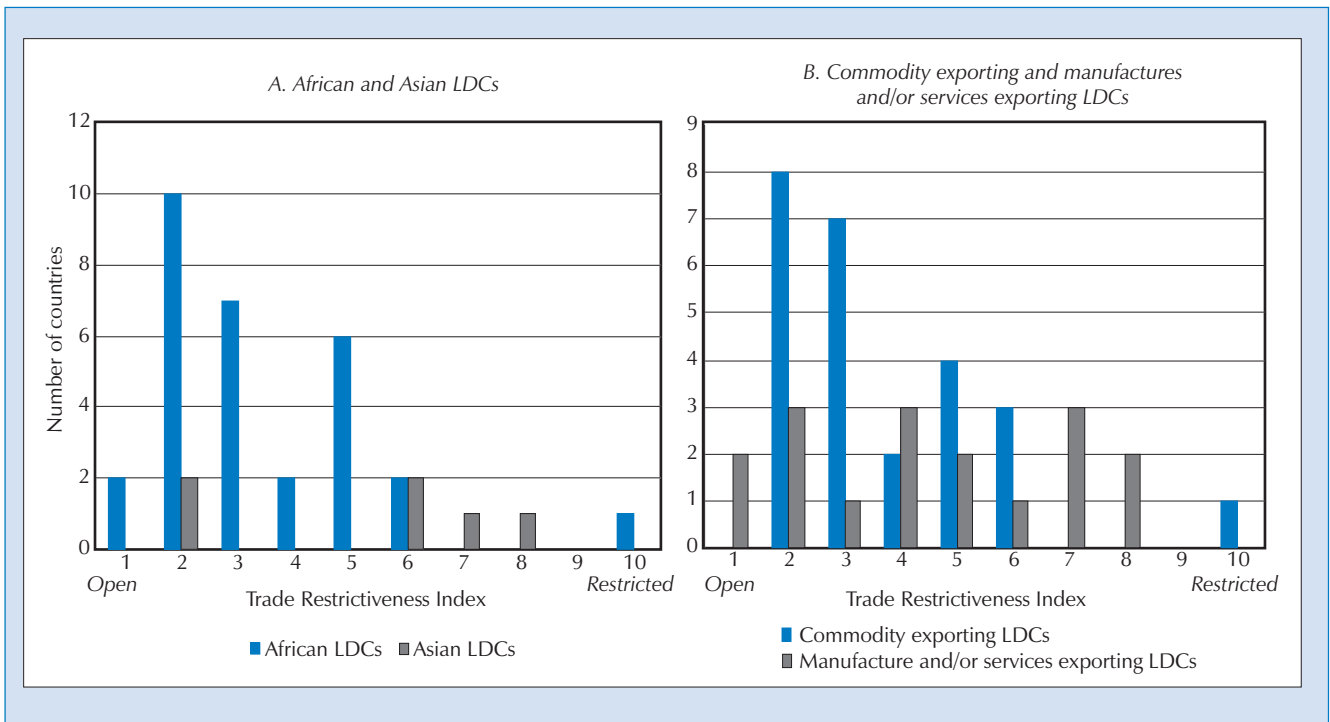

Source: As for chart 32.

Note: Data were not available for Afghanistan and Somalia.

At issue here is how much trade liberalization has been undertaken. The point is not that the Asian LDCs and those exporting manufactures and services have not undertaken trade liberalization. It is that the African LDCs and commodity exporters have undertaken such deep trade liberalization. This point can be underlined by a recent study that proposed establishing Rwanda as an economy-wide free zone following the example of Hong Kong (China) or Singapore. This was regarded as being a practical proposal because Rwanda's trade policy regime was already "not far removed from those of Hong Kong (China) or Singapore" (de Rosa and Roningen, 2002: 31).[1] It is also worth recalling that the famous Sachs-Warner index of openness, which, although widely criticized, has been frequently used to estimate the relationship between openness and economic growth, uses, among others, a tariff rate threshold of 40 per cent as one of the indicators to distinguish "open" from "closed" economies (Sachs and Warner, 1995). According to this criterion, all the LDCs are now "open".

Finally, along with trade liberalization, the LDCs have also introduced more flexible exchange-rate policies, with substantial devaluations[2] of their exchange rates. As shown in chart 34, both the African and Asian LDCs depreciated their currencies to a similar degree between 1980 and 2002, but the time path of change was significantly different. In the 1980s, the average real exchange rate was devalued much more in the Asian LDCs than in the African ones. In the 1990s, the reverse pattern held, with the average real exchange rate being devalued by over 50 per cent in the African LDCs and by 23 per cent in the Asian LDCs during the period 1990–2001. The different time-paths are likely to be related to the build-up of external debt in the African LDCs in the early 1980s and an unwillingness to face the consequences of devaluation in that context. But with the introduction of the IMF-financed programmes under the Structural Adjustment Facility (SAF) and Enhanced Structural Adjustment Facility (ESAF) in the late 1980s, average real exchange rates were sharply devalued. Trade

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CHART 34. TRENDS IN REAL EXCHANGE RATES FOR LDCs, 1980–2001
(Index, 1985 = 100)
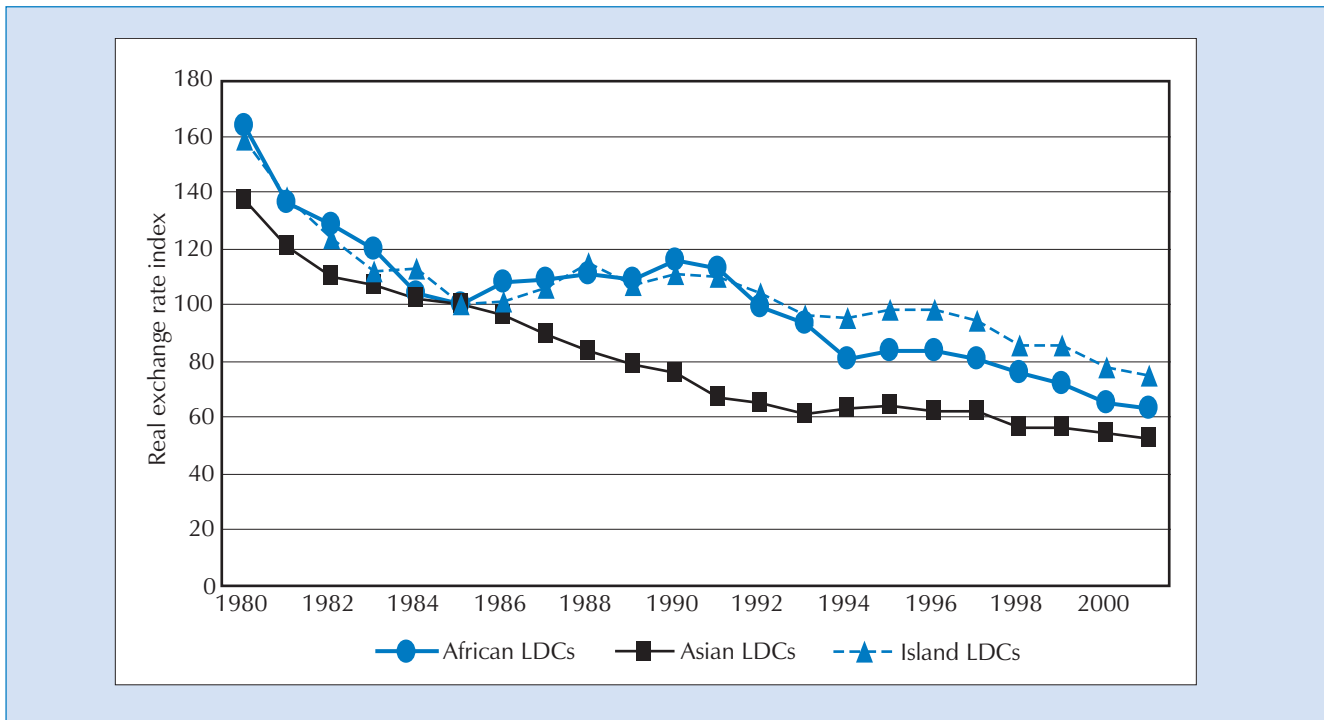
Source: UNCTAD secretariat estimates, based on World Bank, *World Development Indicators 2003*, CD-ROM.

Note: An increase indicates an appreciation while a fall indicates a depreciation.

The country's real exchange rates were calculated as the domestic price index (proxied by the GDP deflator) over the nominal exchange rate multiplied by the US consumer price index.

liberalization and devaluation have also taken place in the context of a general move towards more liberal domestic economic policies through privatization, reduction of the direct role of the State in the economy and domestic financial liberalization.

C. The sequencing, timing and speed of trade liberalization

Trade liberalization has generally taken place in the LDCs as part of the structural adjustment programmes in which most of them have been engaged since the 1980s.

Trade liberalization has generally taken place in the LDCs as part of the structural adjustment programmes in which most of them have been engaged since the 1980s. This has not been part of a negotiated global process of trade liberalization. Rather, it has been associated with IMF and World Bank policy conditionality for aid inflows and debt relief. The promise of economic success through adjustment, together with the marginalization of LDCs in the context of global private capital flows and their dependence on debt relief and aid, explains why the LDCs have gone further than other developing countries in trade liberalization.

1. SEQUENCING OF TRADE LIBERALIZATION

Some trade economists (e.g. Rodrik, 1990; Edwards, 1997) argue that macroeconomic stabilization should come before structural reforms. This is because macroeconomic instability is often one of the most important causes of policy reversal (Edwards, 1992). In practice, however, the stabilization process usually overlaps structural reforms. With regard to the design of trade

liberalization, which is part of the process of structural reform, Edwards (1997) has summarized the best sequencing on the basis of experience as follows:

(a) The government should find an alternative source of revenue before the tariff cut is made;

(b) Import licences and prohibitions should be eliminated during the early stages of the liberalization scheme, and tariffs should replace them if necessary;

(c) A real-exchange-rate overvaluation should be avoided and nominal exchange-rate anchors should be introduced at the beginning of the reform; and

(d) A uniform tariff structure should be introduced for efficiency reasons.

From first hand information gathered from the national trade ministries of 16 countries,[3] complemented by international sources on another 11 countries,[4] it was possible to identify a series of common steps that were typically followed by LDCs in their liberalization efforts. These steps conformed somewhat to the sequence recommended by Edwards, as noted above, but there were some divergences which conformed more closely to other views of best practice (see, for example, Michaely, 1986, and Balassa, 1985). Generally, the steps undertaken by the LDCs were:

(a) A macroeconomic reform in the form of exchange-rate reform, necessary to ease constraints on exporters, and currency devaluation;

(b) Abolition of export restrictions, price decontrol and privatization to strengthen the role of the private sector through the elimination of monopolies on foreign trade and through the promulgation of foreign investment laws;

(c) Elimination of quantitative measures and/or convertion of import restrictions into ad valorem tariff rates. The tariff regime was rationalized and simplified through a reduction in the number of tariff bands. Applied rates, on average, were also reduced. Indirect taxes were normally introduced at this stage, or shortly thereafter, to compensate for the lack of tariff revenue accruing to the government;

(d) Introduction of measures to facilitate and support exports; and,

(e) Further liberalization — on a regional basis — while joining free trade areas or customs unions (Borgatti, 2003).

Some policies were undertaken before others. Nepal, Haiti and Cape Verde, for example, undertook export promotion policies years before their tariff reforms were implemented. While tax substitutes were introduced before tariffs were lowered in the majority of LDCs, Guinea, Uganda and Sudan introduced a value added tax (VAT) only when their goods sector was liberalized. In Senegal, a decrease in tariff rates in the mid-1980s was reversed at the end of the decade partly owing to the lack of needed revenues that could replace those obtained from tariffs.[5]

The literature on sequencing often advises the liberalizing countries to undertake gradual trade reform in the presence of an inflationary environment (Edwards, 1992). However, the Gambia, Mozambique and Sudan successfully carried out simultaneous macroeconomic and trade reforms, at a rapid pace and in a highly inflationary environment. The risk of undertaking reforms in such an environment is that the Government might be forced to renege on its pledges and revert to its previous policies.

From first-hand information gathered from the national trade ministries of 16 LDCs, complemented by international sources on another 11 LDCs, it was possible to identify a series of common steps that were typically followed by LDCs in their liberalization efforts.

Regionalism has contributed to widespread uniformity in tariff rates that characterizes the current trade regimes of many LDCs.

The end of the liberalization process for LDCs is characterized by widespread participation in regional agreements. The end of the 1990s, in particular, saw a rapid increase in regionalism in the form of free trade areas or customs unions. Regionalism has contributed to widespread uniformity in tariff rates that characterizes the current trade regimes of many LDCs. Members of the West African Economic and Monetary Union (WAEMU), the Common Market for Eastern and Southern Africa (COMESA) and the Caribbean Common Market (CARICOM) have all adopted an external, four-band tariff scheme. Other countries have also adopted uniform rates: the Gambia, Mauritania and Cambodia have a four-band tariff scheme, Uganda a three-band scheme and the United Republic of Tanzania a five-band one.[6] Some Asian LDCs maintain a "cascading" tariff structure with low tariffs levied on investment goods and inputs for industry, while higher tariffs apply to non-essential luxury goods.

In all the countries analysed the liberalization of the capital account took place either before or during the liberalization of the goods sector.

From the information available on the sequencing of capital account liberalization, it seems that LDCs have liberalized their financial and goods sectors simultaneously. In the Gambia, Haiti, Mauritania and Uganda, liberalization of the capital account coincided with liberalization of the goods sector. In Nepal and Togo, interest rates were freed when liberalization of the goods sector was started but not completed. The United Republic of Tanzania eased controls about four years before liberalization of its goods sector. In Zambia, the capital account was first liberalized in 1982, together with the first liberalization of its goods sector. This was followed in 1994 by a policy reversal and a second liberalization of the capital account, which took place two years after the liberalization of the goods sector had started. It is worth noting that in all the countries analysed the liberalization of the capital account never took place after the liberalization of the goods sector (Borgatti, 2003).

A general feature of the sequencing of trade liberalization in the LDCs is that financial and other support measures to their exporting companies were not introduced either before or during the early stages of trade liberalization. Cape Verde, Haiti and Nepal all introduced export promotion policies before the implementation of tariff reforms. In the case of Cape Verde and Nepal, the export promotion strategy began, respectively, five years and nine years, before their trade liberalization started. In the case of Haiti, it involved the strengthening of trade ties with United States. It is notable that in all these three countries exports of manufactures account for a major part of their merchandise exports.

The liberalization process occurred without any prior preparations to ensure that domestic industries were ready to face exposure to international competition.

Finally, it is evident that the need for actions to nurture the competitiveness of domestic enterprises has become more intense following trade liberalization. The liberalization process occurred without any prior preparations to ensure that before domestic industries were ready to face exposure to international competition.

2. THE TIMING AND SPEED OF TRADE LIBERALIZATION

On the basis of their speed of liberalization, the LDCs can be divided into three groups (table 36):

- Fast liberalizers — countries that liberalized within a five-year period: Benin, Cape Verde, the Gambia, Malawi, Mozambique, Sudan and Zambia;

- Gradual liberalizers — countries that liberalized within 6 to 15 years: Guinea, Haiti, Lesotho, Madagascar, Mali, Mauritania, Nepal, Togo and Uganda; and

TABLE 36. SELECTED LDCS CLASSIFIED ACCORDING TO THE SPEED OF TRADE LIBERALIZATION

Fast	Gradual	Ongoing
Benin (5 years)	Guinea (13 years)	Bangladesh
Cape Verde (5 years)	Haiti (10 years)	Bhutan
Gambia (4 years)	Lesotho (6 years)	Burkina Faso
Malawi (5 years)	Madagascar (8 years)	Burundi
Mozambique (2 years)	Mali (10 years)	Cambodia
Sudan (5 years)	Mauritania (6 years)	Ethiopia
Zambia (4 years)	Nepal (7 years)	Lao People's Dem. Republic
	Togo (9 years)	Maldives
	Uganda (6 years)	Senegal
		Solomon Islands

Source: Borgatti (2003), based on information supplied by national authorities and other international sources.

Note: The figures in brackets refer to the length of the liberalization episodes.

- Current liberalizers — countries that are still undertaking reforms: Bangladesh, Bhutan, Burkina Faso, Burundi, Cambodia, Ethiopia, the Lao People's Democratic Republic, Maldives, Senegal and the Solomon Islands.

The majority of countries for which data were available started to liberalize their economies in the 1980s, and only a few of them are still in the process of completing liberalization. Among the countries that started in the 1990s only Cape Verde, Mauritania and Sudan completed their liberalization process by the end of the decade. Bhutan, Burundi, Maldives and Solomon Islands started to relax their protective measures only in the late 1990s and are still undertaking liberalization.

The majority of countries for which data were available started to liberalize their economies in the 1980s, and only a few of them are still in the process of completing liberalization.

For comparative purposes, some of the LDCs liberalized their economies faster than the countries that are often taken as models for rapidly undertaking liberalizing reforms, notably Chile. Chile liberalized its economy over a five-year period (1974–1979) during a non-optimal economic situation (Meller, 1994). The seven fast liberalizers among the LDCs either liberalized at the same speed or faster than Chile.

Table 37 lists the starting years of the liberalization episodes for 26 countries. The years have been identified through an analysis based primarily on the evolution of tariffs, NTBs and exchange-rate policies. The first column identifies the starting date of the liberalization process in each country analysed, while the second identifies the key episodes of liberalization, at the end of which a country is classified as open. The episodes represent, as objectively as possible, the years when the full spectrum of trade liberalization measures were undertaken by each country.

Some of the LDCs liberalized their economies faster than the countries that are often taken as models for rapidly undertaking liberalizing reforms.

An interesting feature of the timing of trade liberalization in the LDCs is that most of the mineral-exporting LDCs went farthest earliest. In 1997, the first year for which data were available on the IMF trade restrictiveness index, 6 of the 14 LDCs that have an index of 1, 2 or 3 — the most open categories — were mineral exporters, and this included all the mineral-exporting LDCs, except Liberia. This may imply that there was less national concern about the effects of trade liberalization on domestic agriculture and industry in these countries than in the other countries.

The literature on trade liberalization emphasizes the need for a liberalizing country to avoid overvaluations of the exchange rate, used to support high trade

TABLE 37. THE TIMING OF TRADE LIBERALIZATION EPISODES IN LDCS

Countries	Liberalization starting year	Liberalization episodes
Bangladesh	1986	1992–present
Benin	1988	1990–1994
Bhutan	1996	1996–present
Burkina Faso	1991	1992–present
Burundi	2002	2002–present
Cambodia	1994	1994–present
Cape Verde	1987	1997–2001
Ethiopia	1992	1996–present
Gambia	1985	1985–1988
Guinea	1985	1985–1997
Haiti	1986	1987–1996
Lao People's Democratic Republic	1988	1995–present
Lesotho	1984	1994–1999
Madagascar	1988	1988–1996
Malawi	1988	1997–2001
Maldives	1998	1998-present
Mali	1986	1991–2000
Mauritania	1992	1992–1997
Mozambique	1987	1992–1993
Nepal	1986	1986–1992
Senegal	1986	1994–present
Solomon Islands	1997	1998–present
Sudan	1992	1996–2000
Togo	1988	1988–1996
Uganda	1981	1991–1996
United Republic of Tanzania	1984	1990–present
Zambia	1982	1992–1995

Source: Same as for table 37.

barriers. Shatz and Tarr (2000) argue that "protecting" countries are unable to adopt free trade policies if an exchange-rate adjustment does not take place. The evidence for 18 LDCs for which data are available shows that 11 had an undervalued exchange rate during their liberalization episodes, and 5 had a modest overvaluation, in the order of 20 per cent or less. Only Mauritania and Zambia had largely overvalued exchange rates during their liberalization episodes (Borgatti, 2003).

Table 38 shows that, in a sample of 13 LDCs that opened up their economies by 2001 and for which data were available, their real exchange rates appreciated before they started their liberalization process and depreciated thereafter. The only three exceptions to this rule were the Gambia, Togo and Zambia whose real exchange rates depreciated in the five years preceding the start of their liberalization episodes. The reference years for which the real-exchange-rate indices have been constructed are listed in table 39. The extent of the post-liberalization depreciation ranges between some 30 per cent (in Guinea, Togo and Uganda) and 4 per cent (in Mozambique). It is worth noting that Zambia experienced a depreciation of its real exchange rate before it began liberalization, but the initial depreciation was then reversed to an 8-per-cent appreciation in the post-liberalization period, before again depreciating to the level it was at during liberalization.

The literature on trade liberalization emphasizes the need for a liberalizing country to avoid overvaluations of the exchange rate... Out of 18 LDCs, 11 had an undervalued exchange rate during their liberalization episodes.

3. AID AND TRADE LIBERALIZATION

An important feature of the liberalization processes in the LDCs is that they have coincided with large increases in foreign aid to these countries (Borgatti,

TABLE 38. Real exchange rate indices[a] during, pre-, and post-liberalization

Countries	Pre-liberalization	Liberalization episodes	Post-liberalization
Benin	100.3	100	79.2
Cape Verde	119.8	100	..
Gambia	65.9	100	91.7
Guinea[b]	..	100	67.3
Lesotho	120.5	100	75.1
Madagascar	135.1	100	86.3
Malawi	134.1	100	..
Mali	126.0	100	..
Mauritania	132.6	100	70.9
Mozambique	127.6	100	96.5
Togo	93.2	100	65.7
Uganda	155.4	100	69.8
Zambia	80.0	100	108.2

Source: UNCTAD secretariat estimates, based on World Bank, *World Development Indicators 2003, CD-ROM.*

Note: Haiti, Nepal and Sudan were not included for lack of data.

a The real exchange rate indices were calculated on the basis of the periods defined in table 39, and by taking the average corresponding to the liberalization episodes as 100. The country's real exchange rates were calculated as the domestic price index (proxied by the GDP deflator) over the nominal exchange rate multiplied by the US consumer price index.

b The period 1986–1997 was taken as the liberalization episode for Guinea for lack of data.

TABLE 39. Reference periods[a] during, pre- and post-liberalization

Countries	Pre-liberalization	Liberalization episodes	Post-liberalization
Benin	1985–1989	1990–1994	1995–1999
Cape Verde	1992–1996	1997–2001	..
Gambia	1980–1984	1985–1988	1989–1993
Guinea	1980–1984	1985–1997	1998–2001
Haiti	1982–1986	1987–1996	1997–2001
Lesotho	1989–1993	1994–1999	2000–2001
Madagascar	1983–1987	1988–1996	1997–2001
Malawi	1992–1996	1997–2001	..
Mali	1986–1990	1991–2000	..
Mauritania	1987–1991	1992–1997	1998–2001
Mozambique	1987–1991	1992–1993	1994–1998
Nepal	1981–1985	1986–1992	1993–1997
Togo	1983–1987	1988–1996	1997–2001
Uganda	1986–1990	1991–1996	1997–2001
Zambia	1987–1991	1992–1995	1996–2000

Source: Borgatti (2003).

a The reference periods are the dates used to define liberalization episodes and pre- and post-liberalization periods.

2003). This is associated with the fact that trade liberalization was not undertaken in the context of multilateral negotiations, but rather unilaterally by the countries, usually as part of IMF/World Bank structural adjustment programmes. As shown in UNCTAD's *Least Developed Countries 2000 Report*, there was a major increase in aid per capita in the LDCs undertaking SAF- and ESAF-funded programmes (UNCTAD, 2000: chart 40). The temporal conjunction between increasing aid inflows and trade liberalization reflects the greater financing which countries received upon proper implementation of these structural adjustment programmes. Using a probit econometric model, Borgatti (2003) finds that the probability of international aid flows affecting the timing of trade liberalization in the LDCs is statistically significant, even after accounting for the presence of IMF Structural Adjustment Facilities.

An important feature of the liberalization processes in the LDCs is that they have coincided with large increases in foreign aid to these countries.

D. The short-term impact of trade liberalization on poverty

1. TRADE RESTRICTIVENESS, AND TRENDS IN PRIVATE CONSUMPTION AND POVERTY IN THE 1990S

UNCTAD's *Least Developed Countries Report 2002* examined changes in the share of the population living on less than $1/day during the 1990s in a sample of 36 LDCs, classified according to the degree of trade restrictiveness at the end of the 1990s. This was not a comparison of the situation before and after trade liberalization. However, it is reasonable to assume that most countries started the decade with much more restricted trade regimes, and thus the classification groups countries according to how far they liberalized. The results, reproduced in chart 35, show that the incidence of poverty increased unambiguously in those economies that adopted the most open trade regimes and in those that continued with the most closed trade regimes. But in between these extremes there was a tendency for poverty to decline in those countries that had liberalized their trade regimes to a lesser extent, and for poverty to increase in those countries that had liberalized their trade regimes to a greater extent.

An analysis of trends in private consumption per capita using more recent data confirms this conclusion. Focusing on growth rates of exports and private consumption per capita, it is clear that the trade–poverty relationship improved between the first half of the 1990s and the second half of the 1990s in countries which were "open", "moderately open", and "restricted", according to the IMF restrictiveness index for 2000. But the greatest improvement was observed in those which opened up moderately during the decade rather than those which opened up the most (chart 36).

As stressed by UNCTAD (2002), it would be wrong to conclude from these trends that trade liberalization is causing poverty. The differences between the groups reflect a range of influences, and, in particular, the fact that although the LDCs exporting manufactures and services have undertaken trade liberalization, they have done so to a lesser extent than the agricultural-commodity-exporting LDCs. It is this factor which explains the apparently anomalous tendency for the most restricted economies to have the highest export growth rates. But from this evidence there is no basis for concluding that trade liberalization, in the short run, reduces poverty or leads to a more virtuous trade–poverty relationship.
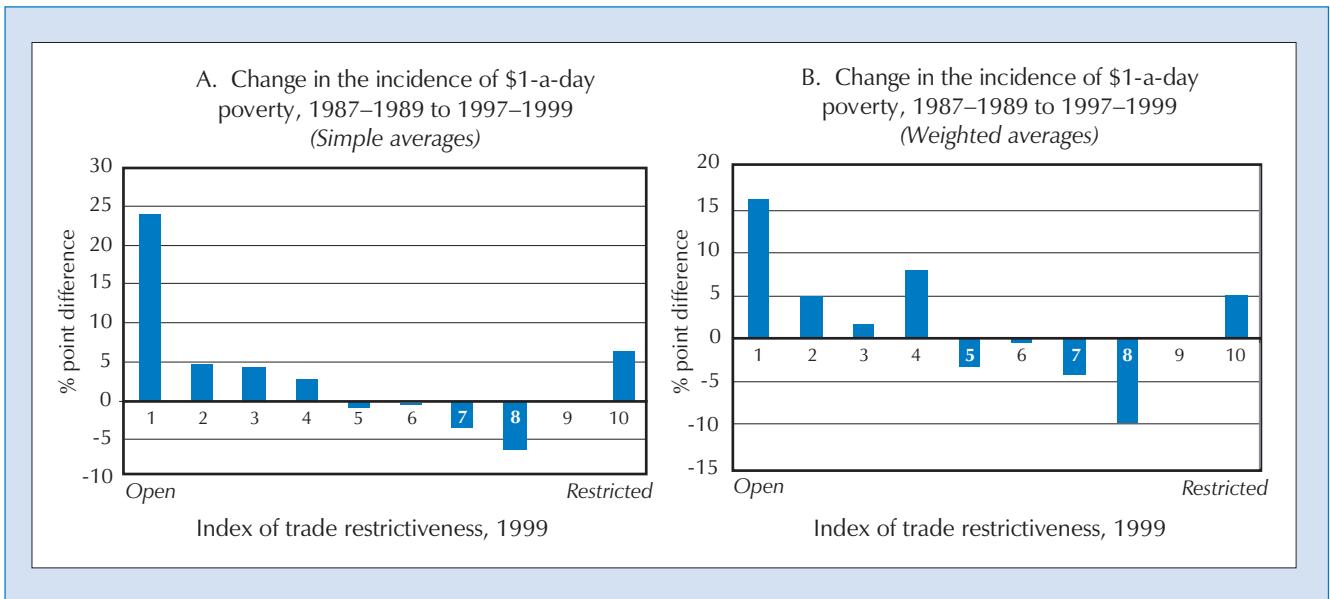
2. THE DIVERSITY OF IMPACT

One of the major findings of the increasing body of case-study evidence on the short-term impact of trade liberalization in the LDCs is that there is considerable variability between countries, as well as between social groups and geographical areas. In order to see the patterns of change more clearly, it is useful to distinguish LDCs according to their major export specialization.

(a) Agricultural-commodity-exporting LDCs

The short-term impact of the removal of export taxes and import tariffs on agricultural-commodity-exporting countries is an increase in the prices received by commodity exporters and reduced prices of imported goods. Depending on the production relations in the commodity exporting sector and the nature of intermediation between the producers and the international market, this could have different implications for poverty reduction. For example, if commodity

The incidence of poverty increased unambiguously in those economies that adopted the most open trade regimes and in those that continued with the most closed trade regimes.

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CHART 35. TRADE LIBERALIZATION AND POVERTY TRENDS IN LDCS DURING THE 1990S

A. Change in the incidence of $1-a-day
poverty, 1987–1989 to 1997–1999
(Simple averages)

B. Change in the incidence of $1-a-day
poverty, 1987–1989 to 1997–1999
(Weighted averages)

Source: UNCTAD (2002: 117, chart 33).

CHART 36. TRADE LIBERALIZATION AND TRENDS IN REAL EXPORTS AND PRIVATE CONSUMPTION PER CAPITA IN LDCS,
1990–1995 AND 1995–2000

(Average annual growth rate, percentage)
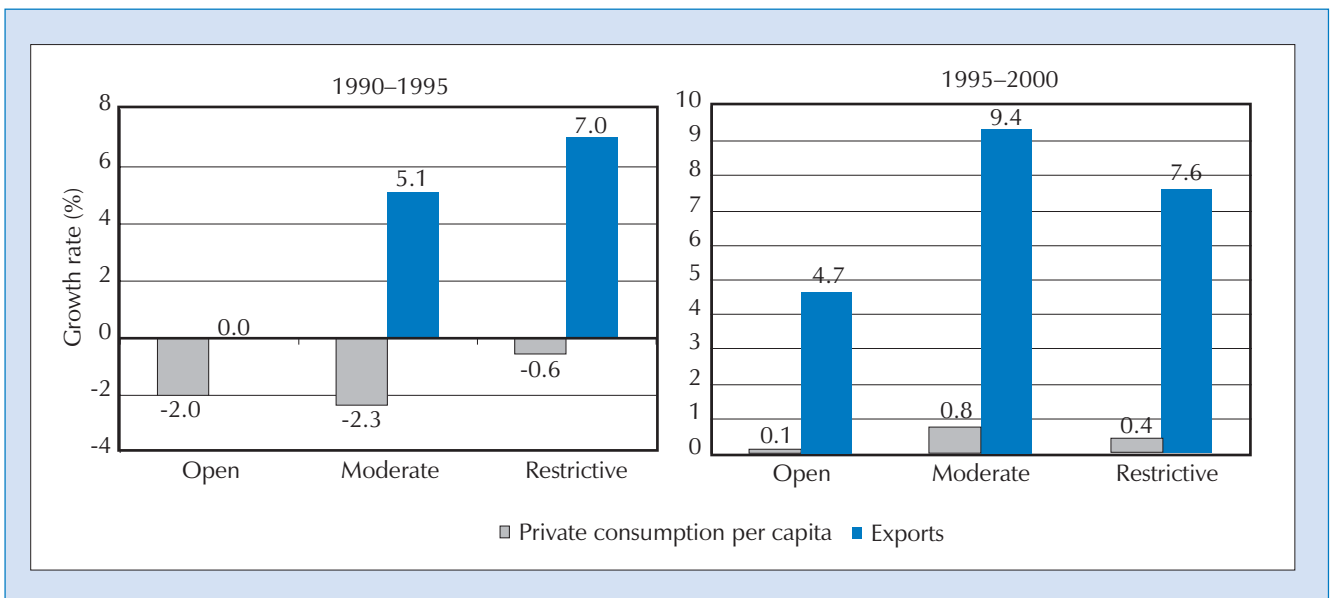
Source: UNCTAD secretariat estimates based on World Bank, *World Development Indicators 2003,* CD-ROM; and Heston, Summers and Aten (2002).

Notes: The "open", "moderate" and "restrictive" LDCs are defined according to IMF definitions and the IMF index of trade restrictiveness in 2000. An economy is defined as "open" if it has an index of 1–4; "moderate" if it has an index of 5–6; and "restricted" if it has an index of 7–10. The averages exclude oil exporters and Haiti.

exports are predominantly produced in large plantations, the immediate impact is an increase in the profits of the plantation owners without major short-term implications for poverty reduction in that sector. On the other hand, if export cash crops are produced by medium and small farmers, and if the nature of market intermediation is such that the price increases are passed on to them, then the immediate impact of liberalization will be an increase in income of a broader section of the population engaged in cash crop production. In that case they will doubly benefit, because the prices of imported consumer and producer goods will also fall as a result of trade liberalization. The very small farmers who, along with the landless rural workers are likely to be the poorest of the poor, are most likely to see the benefits from the price increases captured by middlemen

and moneylenders, unless specific measures are introduced to provide such farmers with inputs, credit and competitive channels for market access. In fact, if the marketing is monopolized by particular merchants or companies, even the middle and rich farmers will not fully benefit from the price increases. Uganda's experience illustrates some of these tendencies (see box 10).

Many of the poor in the agricultural-commodity-exporting LDCs live in rural areas and are engaged in subsistence-oriented farming of traditional food crops rather than in export activities. This group will not benefit much from a reduction in import prices of wage goods and producer goods following liberalization, as the import content of their expenditures is very low.

Many of the poor in the agricultural-commodity-exporting LDCs live in rural areas and are engaged in subsistence-oriented farming of traditional food crops rather than in export activities. Improved export prices can reach this group if they shift their production mix. But such a production shift is not always possible owing to risk aversion and uncertainty, as well as structural constraints, for example, those related to the gender division of labour. This group also will not benefit much from a reduction in import prices of wage goods and producer goods following liberalization, as the import content of their expenditures is very low. Moreover, if liberalization leads to a substitution of the traditional, home-produced food by cheap, imported food in the expenditure patterns of the more well-to-do sections of society, the traditional-food producers may face declining demand and prices for their produce. In the short run, this may, to some extent, favour the landless poor who are the consumers of such food products.

In Madagascar, there is a strong correlation between changes in the incidence of poverty and remoteness, with those living in the most remote rural areas facing lower prices for the goods they sell, higher prices for the goods they consume, fewer diversification opportunities and lower productivity (Stifel et al., 2003). Thus there has been a tendency towards growing poverty in remote areas. Earlier studies have also suggested that what may be happening in some of the worst areas is that poor households are being squeezed by price changes and price instability and have to increase output in order to sustain their minimal subsistence living standards (Barrett, 1998).

Box 10. Trade Liberalization, Exports and Poverty in Uganda

Data in the Uganda Poverty Status Report 2001 (PMAU, 2002) show that there was substantial reduction in the incidence of poverty, from 56 per cent in 1992 to 35 per cent in 2000, during the period of trade liberalization. Poverty reduction occurred in both the urban and rural areas: in the former, from 29 per cent to 10 per cent, and in the latter, from 60 per cent to 39 per cent (see also Appleton, 1998). In the rural areas, the incidence of poverty amongst cash-crop farmers fell from 63 per cent to 34 per cent. But it fell much less amongst food-crop farmers, from 60 per cent to 46 per cent, actually rising by 3 per cent from 1992-1996, a period which coincides with the trade liberalization episode (Morrissey, O., Rudaheranwa, N., and Moller, L., 2003).

Coffee producers did particularly well during this period of rising coffee prices; there is evidence that, in addition to contributing to higher incomes for existing producers, the price changes spurred a significant supply response by the less well-off, allowing the poor to make better use of their labour (Deininger and Okidi, 2003). On the basis of the household survey of 1999/2000, it may be estimated that 27 per cent of the people in farm households that grow coffee are poor as against 41 per cent of the non-coffee-growing farmers (Booth et al., 2003).

The benefits of agricultural exports do not always reach the poor, as the cases of producers of tobacco, tea and fish illustrate (Morrissey, O., Rudaheranwa, N., and Moller, L. 2003). In Northern Uganda, tobacco-growers who grow tobacco on an annual contractual basis face a market situation in which there is only one buyer, British American Tobacco (BAT) Uganda Ltd., and the farmers are open to exploitation in the grading and pricing of their tobacco. Casual workers on large-scale tea estates are amongst the poorest people in the country. Within the fishing industry on Lake Victoria, fishermen hire boats and sometimes nets from boat owners, with whom they split the catch (often 50/50 but sometimes getting as little as 20 per cent), and then sell to the processors, often at very low prices because of the perishability of the product. There is little upward mobility in the fishing communities, with few fishermen becoming boat-owners. Women generally do not own boats and are excluded from fishing by tradition and cultural norms.

There are also regional differences in the rate of poverty reduction. Although the incidence of poverty has fallen in the country as whole, it has declined little in the northern region, which is affected by conflict (PMAU, 2002).

A particular problem for agricultural-commodity-exporting LDCs is that the widespread adoption of trade liberalization and export-oriented policies has been associated with falling world prices for agricultural commodities. As a consequence, the potential benefits that agricultural producers can gain through higher prices at the national level can be offset by lower prices at the international level. In the worst cases, this will lead to the phenomenon of immiserizing trade (see chapter 3). The Diagnostic and Trade Integration Study (DTIS) for Ethiopia[7] (Integrated Framework, 2003a) gives a graphic picture of the situation of coffee growers and their families. Assuming a household size of 6 or 7 persons, it can be estimated that 7.5 to 8 million people depend on the sector. But as the DTIS notes — without comment and in passing, "the negative margin between farmgate prices and production costs make it clear that production is not currently profitable" (Integrated Framework, 2003a: 49). The DTIS estimates that coffee accounted for 40 per cent of the value of Ethiopian exports in 2001/2002.

The overall short-term impact of trade liberalization in agricultural-commodity-exporting LDCs depends not only on what is happening in rural areas but also in urban centres. Cheaper imports will affect the import-competing industries adversely, which can have a deflationary effect in the urban economy. Factories that cannot compete with cheap imports will close down. Similarly affected could be the processing factories linked to liberalized export cash crops that can no longer compete with foreign competitors. The case of cashew nut processing in Mozambique is a stark example; it is estimated that trade liberalization, in the form of the removal of export quotas and export taxes on raw cashew nuts, led to the loss of approximately 10,000 jobs (Cramer, 1999; McMillan, M., Rodrik, D., Welch, K., 2002). In the absence of social security, the unemployed workers from factories forced to close down add to the numbers of urban poor. The workers who are able to keep their jobs by working in services or industries that manage to survive foreign competition, can benefit from the availability of cheaper imported wage goods. This, however, may not last long. Devaluations of the exchange rate during and after a liberalization episode wipe out the effects of cheap, imported wage goods in real wages. In fact the substantial real-exchange-rate devaluations in the LDCs discussed above, which indicate the change in the prices of non-traded goods to traded goods, imply a substantial real-wage reduction in these countries.[8]

While trade liberalization has often had a negative effect on urban wage employment, as former import-substituting industries or export-processing industries become unable to compete, trade liberalization is often associated with a booming urban informal sector. This is related to the fact that liberalization episodes in the LDCs have usually coincided with large increases in foreign aid to these countries. Such increases, bolstered by exchange-rate devaluations — which increase the domestic currency value of aid-supported expenditures — lead to an economic boom, particularly in the urban areas and in the services sectors. This can have a multiplier effect in the urban informal sector, and can lead to a rise in employment and incomes in that sector. A good example of this pattern is the United Republic of Tanzania during the 1990s (Wuyts, 2001). But this type of boom is not created by trade liberalization; rather, it is an aid-driven boom, which can — and will — be reversed as aid declines in subsequent periods.

(b) Mineral and oil exporting LDCs

The short-term impact of trade liberalization in mineral- and oil-exporting LDCs is complicated because the revenues from mineral exports often directly accrue to the State. Hence the government's direct expenditure and credit

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policies can overshadow the effect of other policies. Particular complications can arise in the small oil- and mineral-exporting countries facing a commodity boom. Although the exchange rates may be appropriate in relation to their main export, they are likely to be overvalued with respect to other economic sectors. Such countries face extra difficulties in ensuring competitiveness of agricultural and manufacturing exports, at least at their current levels of skills and technological development, since their exchange rates are overvalued in relation to their agricultural and manufacturing sector. This type of overvaluation, however, cannot be remedied by currency devaluations, because such devaluations would lead to even larger mineral export revenues in domestic currency terms and, depending on the fiscal stance of the government, an even bigger inflationary boom. If the government does not use the mineral export revenues for investment and development of the backward agricultural areas, this type of economy will create highly dualistic structures, where the urban areas, and particularly the capital city, will exhibit the latest manifestations of modernity alongside a backward rural sector. Social and political tensions in such societies can become acute as the main source of riches is access to State resources in the form of rents from mineral exports. Trade liberalization under these circumstances will usually exacerbate the duality and socio-political tensions, because under liberalization the modern enclave will be totally cut off from the agricultural sector by importing all its needs from abroad. Zambia's experience exemplifies the short-term impact of trade liberalization on poverty in a mineral economy that has not suffered such problems (see box 11).

If the Government does not use mineral export revenues for investment and development of the backward agricultural areas, this type of economy will create highly dualistic structures.

(c) Manufactures-exporting LDCs

Trade liberalization is taking place more slowly in the manufactures-exporting LDCs. This is particularly so in the large Asian labour surplus LDCs such as Bangladesh, Cambodia and the Lao People's Democratic Republic, which have average trade-restrictiveness indices closer to the other fast-growing Asian manufacturing exporters such as India or Viet Nam. In these cases, trade liberalization will help promote poverty reduction, if it supports the growth rate of industrial employment and the development of dynamic complementarities between agriculture and industry.

In the manufactures-exporting LDCs, trade liberalization will help promote poverty reduction if it supports the growth rate of industrial employment and the development of dynamic complementarities between agriculture and industry.

Employment data for Bangladesh indicate that manufactured exports have played a central role in accelerating the rate of employment growth in the country. This expansion is attributable to market access preferences accorded by the EU, rather than to trade liberalization (see chapter 6). The employment effects of the process of trade liberalization, which began in the 1990s, reflect the balance between the positive effects on employment in manufacturing associated with the impulse that liberalization gives to domestic demand growth and export growth on the one hand, and the negative effects of import penetration. One study shows that with trade liberalization in the 1990s, there was indeed an increase in job losses through import penetration. But at the same time, there was a large increase in employment creation through exports, which far exceeded this negative effect. During the period 1985–1990, 274,194 jobs were created through export growth, and import substitution created a further 8,486 jobs. In 1990–1995, employment creation through export expansion accelerated to the extent of creating 802,205 jobs, while 57,296 jobs were lost through import penetration (table 40;   Jenkins and Sen, 2004). Among the LDCs, trade liberalization has occurred relatively slowly in Bangladesh, and this policy has probably ensured that job losses through import penetration were not as high as in African LDCs such as Madagascar and Malawi, discussed later.

BOX 11. TRADE LIBERALIZATION AND POVERTY TRENDS IN ZAMBIA

On the basis of household survey data for 1991, 1996 and 1998, the proportion of the population living in poverty increased dramatically in the period 1991-1996 — a period during and immediately after a rapid and comprehensive trade liberalization. But the situation improved somewhat after 1996, and in 1998 the national incidence of poverty was at around the level it had been in 1991. Using the upper national poverty line, the incidence of poverty increased from 70 to 81 per cent of the population from 1991 to 1996, and then fell back to 72 per cent in 1998.

Within these trends there are significant differences amongst rural and urban areas. In 1991, the incidence of poverty was much higher in rural areas than in urban areas, with 89 per cent living below the upper poverty line in the rural areas and 47 per cent in the urban areas. During the period 1991–1996, in the rural areas the incidence of poverty increased by one percentage point and then fell to 77 per cent by 1998. In contrast, the incidence of poverty rose sharply in urban areas during the period 1991–1996, from 47 per cent to 65 per cent, and then only declined slightly, to 63 per cent, in 1998.

A major factor contributing to increasing poverty in urban areas has been the decline in formal sector employment associated with trade liberalization and economic reform. Since 1991, Zambia has implemented wide-ranging economic reforms. These include stabilization, reforms in agricultural marketing, a large privatization programme, trade policy reforms and reform of the public sector. Zambia's economically active population is estimated to have grown from around 3.2 million in 1991 to over 4.7 million in 1998. While the economically active population grew by 46 per cent, formal sector employment fell by 15 per cent. Most of this is attributable to major restructuring in the mining sector, where the number of workers declined by 39 per cent, from 64,800 in 1991 to 39,434 in 1998. Similarly, in the manufacturing sector formal employment fell by 43 per cent, from 75,400 to 43,320 over the same period. Informal sector employment has been estimated at 2.3 million people in 1993. There was a 15 per cent increase in informal non-agricultural employment between 1995 and 1998.

Within the rural areas, not all the socioeconomic groups have experienced a reduction in the incidence of poverty. Amongst the large-scale farmers, the incidence of poverty fell dramatically from 70 per cent in 1991 to 18 per cent in 1998. Amongst the small-scale farmers, improvements were also apparent, but of a lesser magnitude, with the incidence of poverty falling from 90 per cent to 78 per cent over the period. However, amongst the rural non-agricultural households, the incidence of poverty rose from 70 per cent in 1991 to 80 per cent in 1998. Much of this increase is probably due to the situation of casual agricultural workers rather than that of rural traders and petty service providers. It is notable in this regard that there was a 35 per cent increase in informal agricultural employment in the period 1995 to 1998. Much of this employment growth may be linked to the growing importance of large farms.

Source: McCulloch, N., Baulch, B. and Cherel-Robson, M. (2000).

The experience of the Lao People's Democratic Republic also illustrates generally positive poverty trends associated with trade liberalization (Fane, 2003). Average private consumption per capita rose by between 2.5 and 5.8 per cent between 1992/93 and 1997/98, and the share of the population living below the national poverty line fell from 45 per cent to 38 per cent. Most regions shared in the rising prosperity, but the greatest increases in average private consumption per capita and reductions in poverty occurred in the capital city, Vientiane. At the same time, the incidence of poverty rose in the mountainous and isolated extreme northwest of the country, a region where illegal logging, which had previously been an important source of livelihood, was banned. There was also a significant increase in inequality, with the Gini index for consumption distribution increasing from 29 to 35. The poor gained less than the rest of the population, and the poorest quintile probably lost during the first five years of the reform process (Fane, 2003).

Trade liberalization has occurred relatively slowly in Bangladesh, and this policy has probably ensured that job losses through import penetration were not as high as they were in Madagascar and Malawi.

TABLE 40. MANUFACTURING EMPLOYMENT GROWTH FROM TRADE IN BANGLADESH, 1975–1997

	Domestic demand	Export growth	Import penetration	Productivity growth	Total employment growth	Net employment growth from trade
	a	b	c	d	(a+b+c+d)	(b+c)
1975–1980	3 165	60 362	-25 892	17 512	55 147	34 469
1980–1985	75 254	50 714	-20 699	-48 783	56 486	30 015
1985–1990	276 717	247 194	8 486	27 043	559 440	255 679
1990–1997	435 119	802 205	-57 296	-316 015	864 013	744 909

Source: Jenkins and Sen (2004).

Note: The impact of trade on employment is identified by decomposing the sources of employment change into those due to changes in domestic demand, changes in exports, changes in imports and productivity growth.

3. THE QUESTION OF THE IMPACT OF TRADE LIBERALIZATION

It should be emphasized that all these trends refer to what is happening during and immediately after the trade liberalization process. However, not every development should be attributed to trade liberalization. Many other policy changes were occurring at the same time, and the economies were also affected by exogenous shocks of various kinds. It is particularly difficult to separate the impact of trade liberalization in the LDCs because of the association of trade liberalization episodes with increasing aid. What appears to be a positive effect of trade liberalization might equally be due to the effects of increased aid inflows on a country's balance of payments. Improvements in the export growth rate, for example, are largely related to currency devaluations. This is evident in the export take-off of Bangladesh, Burundi, Cape Verde, Ethiopia, Guinea, Guinea-Bissau, Mali, Mauritania, Mozambique, Senegal and Zambia.

There is great variability in the impact of trade liberalization from country to country and amongst different groups, depending on their factor endowments and expenditure patterns.

The only way to isolate the impact of trade liberalization precisely is to construct a counterfactual of what would have happened without trade liberalization, and to compare this with what would have happened under trade liberalization. This can be done with standard computable general equilibrium models. Some estimates have been made for the LDCs, which show diverse patterns that relate to the country under study and to the nature of the counterfactual that is modelled. Studies which compare the situation with and without tariff barriers indicate that trade liberalization has had a positive effect in Bangladesh (Khondker and Mujeri, 2002), a negative effect in Uganda (Morrissey, 2003), and a mixed effect in Nepal, with the rural population losing and the urban population gaining (Cockburn, 2002). Another approach, which has been used to assess the impact of trade and exchange-rate liberalization in sub-Saharan Africa, focuses on different policy responses to the adverse shocks of the late 1970s and early 1980s. It compares the outcome of a liberalized foreign exchange regime in the face of this shock against de facto foreign exchange rationing as a way to deal with it. On the basis of this comparison, it is concluded that in the Gambia, Madagascar and Niger, trade and exchange-rate liberalization has tended to benefit poor households in both rural and urban areas (Dorosh, P., Sahn, D.E. and Younger, S., 1996; Dorosh and Sahn, 2000).

These country studies show that there is great variability in the impact of trade liberalization from country to country and amongst different groups, depending on their factor endowments and expenditure patterns. Moreover, the conclusions on impact also vary according to the type of counterfactual adopted.

E. Prospects for substantial poverty reduction after trade liberalization: sustainability of economic growth

The deep trade liberalization that has occurred in most LDCs since the mid-1980s has created a new policy environment for development and poverty reduction. The evidence presented above suggests that poverty may increase or decrease during and immediately after trade liberalization. The diverse outcomes are associated in particular with differences in economic structure. An increase in knowledge of the variations between countries could help governments manage the process of trade liberalization in a way that will not hurt the poor in the short run. However, the policy debate now must go beyond such a concern for remedial poverty alleviation. The key issues are:

- What are the prospects of sustained and substantial long-term poverty reduction after trade liberalization?

- How can development and poverty reduction be promoted in a newly liberalized economy?

Substantial poverty reduction in the LDCs depends first of all on the ability to sustain high economic growth rates, and second, on the inclusiveness of the growth process. This section and the next assess whether the prospects for substantial poverty reduction have improved or worsened in the new policy environment, and which factors give cause for optimism and concern in each of these areas. The discussion is based on evidence of what is happening in the LDCs. In spite of diversity of experience and the fact that the liberalized policy environment has not been in place for a very long time, it is still possible to identify some emerging patterns of change.

1. ECONOMIC GROWTH, EXPORTS, INVESTMENT AND SAVINGS

The major positive aspect of the post-liberalization economic trends in the LDCs is that rates of economic growth, export growth and investment growth are generally higher than before trade liberalization and the associated economic reforms. This is apparent in table 41, which summarizes pre- and post-liberalization economic trends in a sample of 11 LDCs. These countries have been selected because, according to the IMF criteria and the IMF trade restrictiveness index, they were already considered "open" by 1997. Moreover, from our research on the process of trade liberalization in the LDCs, reported earlier, it is also possible to date the liberalization episodes for these countries and thus compare economic trends before trade liberalization with those in the newly liberalized economy.

From the table, it is apparent that average annual GDP growth rates were higher in the post-liberalization period than in the pre-liberalization period in 7 out of 10 cases for which data is available. Export growth rates were also higher in 6 out of 9 cases, and the rate of growth of gross fixed capital formation was higher in 5 out of 9 cases. Gross fixed capital formation increased as a percentage of GDP in 9 out of 10 cases. Moreover, export growth rates exceeded the 5 per cent threshold, which was identified in chapter 3 as a key level below which the trade–growth linkages are ambiguous, in 6 out of 9 cases. It is notable that the improvements are found in countries with different economic structures.

The deep trade liberalization that has occurred in most LDCs since the mid-1980s has created a new policy environment for development and poverty reduction.

The major positive aspect of the post-liberalization economic trends in the LDCs is that rates of economic growth, export growth and investment growth are generally higher than before trade liberalization and the associated economic reforms.

TABLE 41. KEY ECONOMIC TRENDS IN SELECTED LDCS IN THE PRE- AND POST-LIBERALIZATION PERIODS

	GDP growth (Annual %)		GDP per capita growth (Annual %)		Export growth (Annual %)		Import growth (Annual %)		Gross fixed capital growth (Annual %)		Gross fixed capital formation as a share of GDP (%)		Gross domestic savings as a share of GDP (%)		Aid per capita growth (Annual %)	
	Pre-liber.	Post-liber.	Pre-liber.	Post-liber.	Pre-liber.	Post-liber.	Pre-liber.	Post-liber.	Pre-liber.	Post-liber.	Pre-liber.	Post-liber.	Pre-liber.	Post-liber.	Pre-liber.	Post-liber.
Benin	0.4	5.1	-2.7	2.3	-11.9	6.8	-9.3	5.0	3.0	8.7	12.5	17.3	-2.3	5.4	21.3	-6.7
Gambia	4.3	3.3	1.2	-0.9	15.6	4.9	-8.8	6.8	-3.1	4.4	21.2	21.6	5.4	8.9	-8.2	-6.1
Guinea	..	3.1	..	0.8	..	3.2	..	3.7	..	5.4	..	20.6	.	17.5	-0.8	-13.9
Haiti	0.3	1.3	-1.6	-0.8	-0.7	5.6	3.7	4.6	-5.0	..	15.8	26.4	5.6	8.7	6.6	-19.9
Madagascar	1.5	4.8	-1.2	1.7	1.2	9.2	-3.7	11.5	..	12.8	9.1	14.6	3.5	7.8	17.8	-21.5
Mauritania	1.7	4.6	-0.7	1.3	-4.7	8.6	-3.5	6.8	-10.3	14.7	22.6	23.4	10.5	10.7	2.4	10.9
Mozambique	4.8	8.8	3.8	6.2	13.7	12.9	1.0	1.0	5.4	12.6	14.7	21.9	-13.2	-1.9	9.8	-6.2
Nepal	3.9	5.3	1.7	2.8	..	..	..	..	..	..	18.1	21.8	10.5	14.2	2.9	-1.8
Togo	3.3	0.2	-0.2	-2.7	4.8	-1.1	11.6	-1.0	17.0	5.7	17.3	16.7	11.1	4.3	2.8	-25.1
Uganda	6.5	5.3	3.3	2.5	3.6	6.1	5.6	15.4	12.0	8.3	10.6	18.2	1.6	6.8	29.7	-1.1
Zambia	0.8	1.5	-2.2	-0.8	-2.9	3.4	-10.8	-1.7	-1.5	9.4	9.6	14.5	12.7	5.1	12.3	3.3

Source: UNCTAD secretariat estimates, based on World Bank, *World Development Indicators 2003,* CD-ROM.

Note: The figures were calculated using data in constant local currency units, except aid per capita which was in current dollars. For the dates of pre- and post-liberalization periods, see table 39.

Three features of the post-liberal growth trends which give cause for concern are: the rates of economic growth given the high population growth rates, the low rates of domestic savings and post-liberalization aid fatigue.

Alongside the positive developments in terms of economic growth, exports and investment, there are three features of the post-liberal growth trends which give cause for concern. First, given the high population growth rates, the rates of economic growth have not been high enough to yield the GDP per capita growth rates necessary to make a major dent in poverty. Only in 6 out of 11 cases have GDP per capita growth rates exceeded 1 per cent per annum. Secondly, although there have been widespread improvements, the rate of domestic savings has remained low: in 8 out of 11 cases, gross domestic savings have been less than 10 per cent of GDP. Thirdly, there is strong evidence of post-liberalization aid fatigue: aid flows have been reduced in the aftermath of a newly liberalized economy. These trends may have been reversed recently (see part one, chapter 1), but in the countries examined here, aid per capita growth rate was lower in the five years following liberalization than in the five years before in 9 out of 11 countries. In 5 of these countries, aid per capita growth rate was more than 20 per cent lower in the post-liberalization than in the pre-liberalization period.

The very low domestic savings rates in the post-liberalization period imply that the sustainability of economic growth remains highly dependent on aid inflows and their effective use to build productive capacities and avoid the build-up of unsustainable external debt. Further research is necessary on the composition of investment to see if the positive growth rates in this area are related to increased investment in equipment or in structures (housing and construction). The limited evidence for African LDCs suggests that trade liberalization was associated with construction booms (Collier and Gunning, 1999).

2. CHANGES IN EXPORT COMPOSITION AND EXPORT CONCENTRATION

Although exports have been growing faster than before, a critical issue for the sustainability of economic growth is whether or not the composition of exports is changing and whether countries are beginning to diversify into more dynamic products. Table 42 shows changes in the revealed comparative advantage (RCA) indices[9] for the 10 major export products of the 11 LDCs pre- and post-

TABLE 42. MAJOR EXPORT PRODUCTS IN WHICH THE LDCs SPECIALIZED[a] IN THE PRE- AND POST-LIBERALIZATION PERIODS, RANKED ACCORDING TO MARKET DYNAMISM[b]

Countries	Pre-liberalization period				Post-liberalization period			
	SITC Rev.2 codes	Products	RCA	Product ranking	SITC Rev.2 codes	Products	RCA	Product ranking
Benin	263	Cotton	133.6	197	263	Cotton	408.9	197
	072	Cocoa	60.5	207	223	Seeds for other fixed oils	33.4	196
	424	Other fixed vegetable oils	39.6	151	222	Seeds for soft fixed oils	21.9	191
	223	Seeds for other fixed oils	12.1	196	057	Fruit, nuts, fresh, dried	7.1	130
	222	Seeds for soft fixed oils	7.3	191	122	Tobacco, manufactured	5.7	52
	423	Fixed vegetable oils, soft	4.1	144	652	Cotton fabrics, woven	4.6	119
	333	Crude petroleum	3.9		042	Rice	2.4	165
	071	Coffee and substitutes	3.4	210	661	Lime, cement and building prdts	1.9	143
	211	Hides skins, exc furs, raw	2.5	190	248	Wood, shaped, rail sleepers	1.6	133
	667	Pearl, prec, semi-prec stones	2.4	87	036	Shell fish fresh, frozen	1.5	83
		Average ranking		*175*		*Average ranking*		*141*
Gambia	423	Fixed vegetable oils, soft	80.7	144	035	Fish salted, dried, smoked	69.7	171
	034	Fish, fresh, chilled, frozen	69.9	76	036	Shell fish fresh, frozen	48.8	83
	222	Seeds for soft fixed oils	64.7	191	014	Meat prepd, prsrvd nes, etc	40.2	135
	035	Fish salted, dried, smoked	30.8	171	289	Prec metal ores, waste nes	34.6	169
	223	Seeds for other fixed oils	23.9	196	423	Fixed vegetable oils, soft	31.5	144
	277	Natural abrasives nes[d]	12.3	184	222	Seeds for soft fixed oils	28.8	191
	667	Pearl, prec, semi-prec stones	8.6	87	034	Fish, fresh, chilled, frozen	25.1	76
	036	Shell fish fresh, frozen	7.3	83	072	Cocoa	18.7	207
	263	Cotton	5.4	197	263	Cotton	11.0	197
	081	Feeding stuff for animals	5.2	163	075	Spices	8.0	160
		Average ranking		*149*		*Average ranking*		*153*
Guinea	287	Base metals ores, conc nes	151.2	181	287	Base metals ores, conc nes	174.6	181
	223	Seeds for other fixed oils	9.7	196	277	Natural abrasives nes	61.0	184
	071	Coffee and substitutes	2.8	210	522	Inorg chem elmnt, oxides, etc	50.8	153
	247	Other wood rough, squared	2.0	186	892	Printed matter	8.3	89
	667	Pearl, prec, semi-prec stones	1.4	87	071	Coffee and substitutes	6.1	210
	072	Cocoa	1.1	207	072	Cocoa	4.3	207
	281	Iron ore and concentrates	0.8	201	047	Other cereal meals, flour	3.8	198
	074	Tea and mate	0.5	187	263	Cotton	3.0	197
	551	Essential oils, perfume, etc	0.5	46	694	Stell, copper nails, nuts, etc	2.3	68
	424	Other fixed vegetable oils	0.4	151	046	Wheat etc, meal or flour	0.8	203
		Average ranking		*165*		*Average ranking*		*169*
Haiti	612	Leather, etc, manufactures	56.1	17	846	Under garments knitted	42.9	7
	223	Seeds for other fixed oils	32.7	196	847	Textile clothing accessoris nes	30.3	40
	846	Under garments knitted	26.2	7	551	Essential oils, perfume, etc	28.3	46
	071	Coffee and substitutes	22.9	210	843	Women's outwear non-knit	21.1	37
	894	Toys, sporting goods, etc	19.1	69	071	Coffee and substitutes	18.1	210
	551	Essential oils, perfume, etc	19.0	46	842	Men's outwear non-knit	14.6	48
	844	Under garments non-knit	15.0	21	845	Outer garments knit nonelastic	12.6	50
	771	Electric power machinery nes	12.2	5	896	Works of art, etc	10.6	156
	772	Switchgear etc, parts nes	10.7	19	848	Headgear, non-textile clothing	8.8	95
	658	Textile articles nes	9.5	57	072	Cocoa	8.4	207
		Average ranking		*65*		*Average ranking*		*90*
Madagascar[c]	075	Spices	427.3	160	075	Spices	261.9	160
	071	Coffee and substitutes	59.6	210	265	Vegetb fibre, exc cotton, jute	94.0	208
	265	Vegetb fibre, exc cotton, jute	30.4	208	941	Zoo animals, pets, etc	80.6	82
	036	Shell fish fresh, frozen	25.5	43	071	Coffee and substitutes	41.1	210
	551	Essential oils, perfume, etc	13.1	46	652	Cotton fabrics, woven	33.9	119
	278	Other crude minerals	11.9	185	036	Shell fish fresh, frozen	30.7	83
	652	Cotton fabrics, woven	7.8	119	654	Other woven textile fabric	24.7	127
	072	Cocoa	5.2	207	278	Other crude minerals	20.1	185
	263	Cotton	4.4	197	058	Fruit prsrvd, preprd	18.0	121
	061	Sugar and honey	4.3	205	551	Essential oils, perfume, etc	17.8	46
		Average ranking		*158*		*Average ranking*		*134*
Mauritania	281	Iron ore and concentrates	189.0	201	281	Iron ore and concentrates	261.9	201
	036	Shell fish fresh, frozen	101.2	83	036	Shell fish fresh, frozen	87.1	83
	034	Fish, fresh, chilled, frozen	20.1	76	034	Fish, fresh, chilled, frozen	73.5	76
	035	Fish salted, dried, smoked	5.0	171	035	Fish salted, dried, smoked	8.6	171
	941	Zoo animals, pets, etc	1.1	82	081	Feeding stuff for animals	3.8	163
	334	Petroleum products, refined	0.9		037	Fish etc prepd, prsrvd nes	2.0	96
	037	Fish etc prepd, prsrvd nes	0.8	96	411	Animal oils and fats	1.3	213
	211	Hides skins, exc furs, raw	0.7	190	211	Hides skins, exc furs, raw	0.9	190
	273	Stone, sand and gravel	0.4	97	291	Crude animal materials nes	0.8	141
	292	Crude vegetb materials nes	0.3	114	334	Petroleum products, refined	0.7	
		Average ranking		*123*		*Average ranking*		*148*

Table 42 (contd.)

Countries	Pre-liberalization period				Post-liberalization period			
	SITC Rev.2 codes	Products	RCA	Product ranking	SITC Rev.2 codes	Products	RCA	Product ranking
Mozambique	223	Seeds for other fixed oils	69.1	196	223	Seeds for other fixed oils	127.7	196
	036	Shell fish fresh, frozen	67.4	83	036	Shell fish fresh, frozen	121.5	83
	532	Dyes nes, tanning products	26.0	117	263	Cotton	41.8	197
	673	Iron, steel shapes, etc	14.5	173	046	Wheat etc, meal or flour	32.7	203
	263	Cotton	12.6	197	057	Fruit, nuts, fresh, dried	23.6	130
	061	Sugar and honey	12.5	205	061	Sugar and honey	19.4	205
	672	Iron, steel primary forms	11.6	67	035	Fish salted, dried, smoked	13.9	171
	057	Fruit, nuts, fresh, dried	11.5	130	044	Maize (corn), unmilled	13.3	214
	674	Iron, steel univ, plate, sheet	7.7	134	247	Other wood rough, squared	12.8	186
	282	Iron and steel scrap	7.6	126	121	Tobacco, unmanufactd, refuse	11.5	189
		Average ranking		*143*		*Average ranking*		*177*
Nepal	264	Jute, other textile bast fibres	730.1	224	659	Floor coverings, etc	217.2	159
	532	Dyes nes, tanning products	183.3	117	264	Jute, other textile bast fibres	114.4	224
	659	Floor coverings, etc	61.3	159	223	Seeds for other fixed oils	100.6	196
	223	Seeds for other fixed oils	53.2	196	075	Spices	31.3	160
	042	Rice	48.6	165	842	Men's outwear non-knit	19.6	48
	075	Spices	43.6	160	844	Under garments non-knit	14.9	21
	611	Leather	33.9	61	843	Women's outwear non-knit	8.7	37
	658	Textile articles nes	21.8	57	532	Dyes nes, tanning products	8.5	117
	654	Other woven textile fabric	17.8	127	054	Vegtb etc fresh, simply prsrvd	7.7	103
	054	Vegtb etc fresh, simply prsrvd	16.2	103	611	Leather	7.3	61
		Average ranking		*137*		*Average ranking*		*113*
Togo	271	Fertilizers, crude	590.7	221	271	Fertilizers, crude	1024.7	221
	072	Cocoa	55.2	207	263	Cotton	167.0	197
	263	Cotton	40.4	197	661	Lime, cement and building prdts	69.1	143
	223	Seeds for other fixed oils	33.9	196	046	Wheat etc, meal or flour	66.9	203
	661	Lime, cement and building prdts	25.5	143	072	Cocoa	37.9	207
	071	Coffee and substitutes	15.7	210	071	Coffee and substitutes	27.7	210
	277	Natural abrasives nes	14.7	184	223	Seeds for other fixed oils	13.0	196
	941	Zoo animals, pets, etc	13.0	82	693	Wire products, non-electric	7.1	152
	269	Waste of textile fabrics	6.1	80	673	Iron, steel shapes, etc	4.6	173
	046	Wheat etc, meal or flour	3.5	203	247	Other wood rough, squared	4.6	186
		Average ranking		*172*		*Average ranking*		*189*
Uganda	071	Coffee and substitutes	214.8	210	071	Coffee and substitutes	172.4	210
	211	Hides skins, exc furs, raw	23.6	190	074	Tea and mate	113.1	187
	074	Tea and mate	13.8	187	047	Other cereal meals, flour	84.7	198
	291	Crude animal materials nes	7.8	141	121	Tobacco, unmanufactd, refuse	45.0	189
	263	Cotton	7.2	197	291	Crude animal materials nes	34.5	141
	121	Tobacco, unmanufactd, refuse	2.4	189	211	Hides skins, exc furs, raw	30.5	190
	941	Zoo animals, pets, etc	2.0	82	263	Cotton	26.5	197
	222	Seeds for soft fixed oils	2.0	191	034	Fish, fresh, chilled, frozen	25.7	76
	072	Cocoa	1.5	207	35	Electric current	11.0	
	044	Maize (corn), unmilled	1.3	214	269	Waste of textile fabrics	10.3	80
		Average ranking		*181*		*Average ranking*		*163*
Zambia	682	Copper	132.8	116	682	Copper	111.8	116
	689	Non-fer base metals nes	79.5	107	689	Non-fer base metals nes	81.2	107
	686	Zinc	11.7	140	269	Waste of textile fabrics	29.4	80
	121	Tobacco, unmanufactd, refuse	6.3	189	263	Cotton	13.1	197
	685	Lead	2.9	204	061	Sugar and honey	10.0	205
	667	Pearl, prec, semi-prec stones	2.1	87	287	Base metals ores, conc nes	9.1	181
	35	Electric current	2.0		351	Electric current	9.0	
	681	Silver, platinum, etc	1.6	180	046	Wheat etc, meal or flour	8.2	203
	263	Cotton	1.5	197	661	Lime, cement and building prdts	7.7	143
	278	Other crude minerals	1.1	185	121	Tobacco, unmanufactd, refuse	6.7	189
		Average ranking		*156*		*Average ranking*		*158*

Source: UNCTAD secretariat estimates, based on UN COMTRADE and UNCTAD, *Handbook of Statistics 2003*; See Butkevicius et al., 2003, for methodology followed for the product ranking.

Note: For reference periods, see table 39.

    a   Specialization is measured by revealed comparative advantage (RCA). For methodology, see text.

    b   Market dynamism is measured by the export value growth of 225 products. The first 29 products have an average annual export value growth higher than 10 per cent, the products ranked between 30 and 153 have an average annual export value growth higher than 5 per cent.

    c   The data for Madagascar do not include exports from the export processing zone.

    d   nes — not elsewhere specified.

liberalization. The table also shows the ranking of these products in a list of 225 dynamic products, from the most dynamic (1) to the least dynamic (225).

From the table, it is apparent that there is a mixed pattern: some countries have reinforced the existing pattern of specialization after trade liberalization, while in other countries the pattern of specialization is somewhat different after their liberalization episode from what it was before. In Benin, Guinea, Mauritania, Mozambique and Togo, the five sectors with the highest RCA index before liberalization experienced an increase in their RCA index after liberalization. Benin, for example, increased its export specialization in cotton four times, while Togo doubled its specialization in exports of crude fertilizers. In contrast, the pattern of specialization has changed in the Gambia, Madagascar and Uganda, though agricultural and mineral products have been predominant among the major products in which they have a revealed comparative advantage. Haiti, Guinea and Togo have increased their specialization in manufactures with the liberalization of their goods sector. Interestingly, in Guinea two of the sectors that revealed the highest RCA are after trade liberalization were in manufacturing (i.e. inorganic chemical elements and printed matter).

Despite these changes, the major conclusion which may be drawn from the table is that these countries began, in the pre-liberalization period, with a very undynamic export structure, and in the post-liberalization period this problem has not been rectified. The average rank of the 10 products in which these countries had the greatest specialization increased in 7 of the 11 countries (implying a move towards a less dynamic export structure). Within the top 10 products, the number of export products with an export growth rate of over 5 per cent (in current US$) over the period 1980–2001 decreased in 8 of the 11 countries.

Table 43 sheds further light on whether export composition is changing in a way that would allow these countries to become less marginalized in the world economy. It shows whether or not these countries were increasing their share of world merchandise trade in the pre- and post-liberalization periods, and identifies the major components behind the trends, namely: (i) the lack of dynamic products in their export composition (estimated by the structural market effect); (ii) the competitiveness of export products (estimated by the market-share effect, which shows whether the country is gaining or losing market share in those products which it exports); and (iii) diversification into more dynamic products (market growth adaptation effect) or into less dynamic products (market stagnation adaptation effect). This is based on the method presented by Laursen (1997, 1998).[10]

The table shows that 7 of the 11 countries were losing market share in the pre-liberalization period and 8 were losing market share in the post-liberalization period. The only countries that were not losing market share in the five years after deep trade liberalization were the Gambia, Haiti and Mozambique. For these countries, the major factor contributing to this situation has been their improved competitiveness in existing exports, rather than diversification. For the 8 LDCs losing market share in the post-liberalization period, the major factors contributing to the situation were the lack of market-dynamic export products and loss of market share in existing export products. Five of the 11 countries had improved their competitiveness in existing markets in the pre-liberalization period, while only four were doing so in the post-liberalization period. Diversification made a very small contribution to the pattern of change in both the pre- and post-liberalization periods in all countries

The revealed comparative advantage for the 10 major export products of 11 LDCs shows that, in the pre-liberalization period, these countries began with a very undynamic export structure, and in the post-liberalization period this problem has not been rectified.

TABLE 43. CONSTANT MARKET SHARE ANALYSIS[a] FOR PRE-LIBERALIZATION AND POST-LIBERALIZATION

	Pre-liberalization[b]						
	Export market share at time t_1 (a) %	Export market share at time t_2 (b) %	Change (b-a) %	Market share effect (c)	Structural market effect (d)	Market growth adaptation (e)	Market stagnation adaptation (f)
Benin	0.079	0.029	-0.05	-0.04	-0.017	-0.0009	0.01
Gambia	0.017	0.027	0.01	0.008	0.003	0.0005	-0.0006
Guinea	0.22	0.27	0.05	0.098	-0.03	0.0002	-0.014
Haiti	0.093	0.31	0.22	0.15	0.016	0.033	-0.0005
Madagascar	0.19	0.15	-0.038	-0.05	0.016	-0.007	0.003
Mauritania	0.16	0.14	-0.02	-0.012	0.001	0.0002	0.001
Mozambique	0.072	0.043	-0.029	-0.028	-0.001	-0.0004	0.002
Nepal	0.039	0.069	0.03	0.023	-0.0006	0.003	-0.0002
Togo	0.11	0.105	-0.005	0.037	-0.021	-0.00013	-0.006
Uganda	0.21	0.08	-0.13	-0.047	-0.11	-0.0004	0.022
Zambia	0.34	0.25	-0.11	-0.13	-0.03	-0.0005	0.012
	Post-liberalization[b]						
	Export market share at time t_1 (a) %	Export market share at time t_2 (b) %	Change (b-a) %	Market share effect (c)	Structural market effect (d)	Market growth adaptation (e)	Market stagnation adaptation (f)
Benin	0.041	0.04	-0.01	0.013	-0.015	-0.0003	-0.0054
Gambia	0.012	0.017	0.005	0.006	-0.0004	0.0003	0.0003
Guinea	0.098	0.092	-0.006	-0.0098	0.0026	-0.0011	-0.0008
Haiti	0.023	0.037	0.014	0.018	-0.0017	0.0014	-0.0017
Madagascar	0.049	0.042	-0.007	-0.0002	-0.0054	-0.0004	-0.0004
Mauritania	0.12	0.075	-0.045	-0.035	-0.006	-0.001	0.002
Mozambique	0.037	0.045	0.008	0.014	-0.0041	0.0001	-0.002
Nepal	0.097	0.074	-0.023	-0.022	-0.01	-0.0001	0.004
Togo	0.05	0.035	-0.015	-0.0044	-0.015	0.00004	0.004
Uganda	0.09	0.07	-0.02	-0.0012	-0.023	0.0005	0.003
Zambia	0.24	0.2	-0.04	-0.01	-0.03	0.00033	0.002

Source: UNCTAD Secretariat estimates, based on UNCTAD, *Handbook of Statistics 2003*.

a For the methodology and definitions of market share effect (c), structural market effect (d), market growth adaptation (e) and market stagnation adaptation (f), see text — the sum of (c), (d), (e) and (f) approximates the difference between (a) and (b). Due to the large quantity of estimated values, the sum of the four effects does not correspond to the change in the export market share for Mauritania, Togo and Zambia.

b For the dates of pre- and post-liberalization periods, see table 39. Within each reference period, the first two (t_1) and last two years (t_2) have been averaged out to smooth the effects of unusual years.

in this sample, except Haiti in the pre-liberalization period. There is slightly more evidence of a tendency in the post-liberalization period for the diversification, albeit small, to involve more dynamic products than static products. But the overall contribution of this positive trend is so small that it does not make a difference to the overall outcome.

A final aspect of the change in export structure is the degree to which it is becoming more or less concentrated. Table 44 shows changes in export concentration in the LDCs between the pre- and post-liberalization periods for the 11 countries using an export concentration indicator — a measure of the share of the top three export products in total merchandise exports — and the number of exports. The table suggests the export concentration has been decreasing and the diversity in the number of products exported increasing in the post-liberalization period. The number of products exported increased in all countries for which data are available, while the export concentration index fell

TABLE 44. EXPORT CONCENTRATION AND NUMBER OF PRODUCTS EXPORTED IN PRE- AND POST-LIBERALIZATION PERIODS

Countries	Export Concentration Index[a]		Share of 3 leading export products in total exports (Percentage)		Number of exported products[b]	
	Pre-liberalization	Post-liberalization	Pre-liberalization	Post-liberalization	Pre-liberalization	Post-liberalization
Benin	0.48	0.76	77.5	87.1	21	25
Gambia	0.44	0.33	74.0	42.3	..	30
Guinea	0.92	0.59	96.1	88.6	..	24
Haiti	0.20	0.35	35.5	51.7	..	36
Madagascar	0.45	0.22	74.1	33.8	47	71
Mauritania	0.62	0.53	94.6	93.8	20	25
Mozambique	0.31	0.40	40.1	60.4	51	62
Nepal	0.25	0.49	30.9	66.0	33	47
Togo	0.51	0.41	72.1	69.4	38	45
Uganda	0.86	0.43	96.0	59.6	19	73
Zambia	0.86	0.62	91.8	72.4	48	119

Source: UNCTAD secretariat estimates, based on UNCTAD, *Handbook of Statistics 2003*.

Note: For reference periods, see table 39.

   a   Measured according to the Hirschmann Index normalized to obtain values ranking from 0 to 1 (maximum concentration)
   b   Number of products exported at the 3-digit SITC, Revision 2.

in 6 of the 11 countries and the share of the three leading products fell in 7 countries. This constitutes a positive trend. But from the market share analysis, it is apparent that the scale of these developments is not sufficient to have had a major positive impact on trends in export market share. Moreover, the average number of products exported by these countries after trade liberalization was 51, which is still very low compared with 129 in other developing countries over the period 1995–2001.

3. IMPACT OF TRADE LIBERALIZATION ON THE BALANCE OF PAYMENTS

Discussions of the impact of trade liberalization within developing countries have generally paid little attention to its effects on the balance of payments. But UNCTAD (1999), as well as some recent research (Santos-Paulino, 2002a; 2002b; Santos-Paulino and Thirlwall, 2004), suggests that this is a significant omission. This is because "while trade liberalization may promote growth from the supply side through a more efficient allocation of resources, it may constrain growth from the demand side unless a balance between imports and exports can be maintained through currency depreciation or deficits can be financed through sustainable capital inflows" (Santos-Paulino and Thirlwall, 2004: 68).

A recent analysis of trends within developing countries as a whole has sought to estimate the impact of trade liberalization on exports, imports and the trade balance, distinguishing between the effects of the removal of export and import duties, and the timing of the whole process of trade liberalization, including the reduction and/or elimination of tariffs, NTBs and administrative restrictions on exports and imports. The following are the main findings for developing countries:

- For one percentage point reduction in export and import duties, a consequent export growth of less than 0.2 per cent has been outweighed by an import growth of between 0.2 and 0.4 per cent.

- Independently from any change in the duty rates, a comparison between the pre- and the post-liberalization regimes shows that exports increased by 2 per cent and imports by 6 per cent.

"While trade liberalization may promote growth from the supply side... it may constrain growth from the demand side unless a balance between imports and exports can be maintained through currency depreciation or deficits can be financed through sustainable capital inflows."

- The income elasticities of demand for imports and exports have been affected almost equally by trade liberalization. However, the price elasticity of demand for imports has increased more than for exports.

- Trade liberalization has worsened the trade balance by over 2 per cent of GDP and the current account by 0.8 per cent of GDP.

- All the regions analysed (Africa, Asia and Latin America) have experienced a deterioration in their trade balance and their current account in the post-liberalization period.

- The positive effect of liberalization on import growth and the negative effect on the trade balance and on the current account are all greater in those countries that started their liberalization from a highly protectionist regime.

- Trade liberalization has had a net positive effect on income growth, but the balance-of-payments consequences may have reduced growth below what might otherwise have been achieved had a balance between exports and imports been maintained (Santos-Paulino and Thirlwall, 2004: 69–70).

The shift to a liberalized trade regime worsens the trade balance both in the LDCs and in developing countries, but less so in the LDCs.

This implies that growth may have been constrained to remain below its productive potential because of the balance-of-payments effects of trade liberalization.

Research on the impact of trade liberalization within LDCs confirms the general pattern identified in developing countries by Santos-Paulino and Thirlwall (2004). The research on the LDCs presents eight basic findings:

- In the LDCs, the effect of a one percentage point reduction in export duties is to raise export growth by 0.19 percentage points, and the effect of a one percentage point reduction in import duties is to raise import growth by 0.12 percentage points (see box 12). These results are of a similar order of magnitude to those obtained in the developing countries.

- In the LDCs, as in the developing countries, the effect of the shift to a newly liberalized trade regime on exports, imports and the balance of trade is greater than the effect of a reduction of export duties and import duties alone.

- The shift to a liberalized trade regime has a much smaller effect on exports in the LDCs than it does in developing countries as a whole. Independently from the change in duty rates, a comparison between the pre- and post-liberalization regimes shows that exports increased by 0.5 per cent in the LDCs compared with 2 per cent in the developing countries.

- The shift to a liberalized trade regime also has a smaller effect on imports in the LDCs than it does in developing countries. Independently of the change in duty rates, a comparison between the pre- and post-liberalization regimes shows that imports increased by 1 per cent in the LDCs compared with 6 per cent in developing countries.

- In the LDCs, as in developing countries, trade liberalization has a significant impact not only on the autonomous growth of imports, but also on their sensitivity to income and price variations.

- The shift to a liberalized trade regime worsens the trade balance both in the LDCs and in developing countries, but less so in the LDCs. Trade liberalization has worsened the trade balance by 1.3 per cent of GDP in the LDCs compared with 2 per cent of GDP in developing countries.

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<div align="center">BOX 12. TESTING FOR THE IMPACT OF TRADE LIBERALIZATION ON EXPORT GROWTH,

IMPORT GROWTH AND TRADE BALANCE</div>

This box summarizes the models used by Santos-Paulino (2003) to test the impact of trade liberalization on export growth, import growth and the trade balance in LDCs, and reports the results obtained.

An export growth equation can be used which relates export growth to the growth of world income and to competitiveness, measured as the price of a country's exports relative to the foreign prices of related goods expressed in a common currency. In estimating the impact of trade liberalization on export growth, this basic model is modified: (i) to reflect the fact that adjustment of export demand to changes in prices or incomes is not instantaneous; (ii) to include two different measures of trade liberalization: export duties (measured as a percentage of total export values) on the one hand, and a dummy variable for the year of significant liberalization on the other; and (iii) variables which capture the sensitivity of exports to price and income changes.

To model the effect of trade liberalization on import growth, the same approach is used. A traditional dynamic import demand function relating imports to relative prices and domestic incomes is estimated. But in addition, an augmented import growth function is estimated, which includes aid as a ratio of GDP. It is expected that import growth is positively related to aid inflows.

To model the effect of trade liberalization on trade balance, a combination of the previous two models is elaborated with trade performance measured as the nominal gap between imports and exports.

Using the GMM[1] estimation technique, the effects of trade liberalization on import and export growth and trade balance was estimated for a group of 17 LDCs from 1970 to 2001. Three separate models were used to capture the individual effects of liberalization on exports, imports and trade balance. The equations and variables used for such an analysis are presented below together with the model's findings, which are discussed in the main text.

The estimated augmented export growth function takes the following form:

$$x_{it} = \beta_1 px_{it} + \beta_2 wy_{it} + \beta_3 x_{it-1} + \beta_4 d_{it} + \beta_5 lib + \beta_6(px \times lib)_{it} + \beta_7(wy \times lib)_{it} + \mu_t$$

where:

x_{it} = export growth for country i and time t;

px_{it} = real exchange rate (RER) change;

wy_{it} = world income change;

x_{it-1} = export growth lagged for one period;

d_{it} = rate of export duty;

lib = dummy variable equals 0 before the starting year of the liberalization episodes as per table 37, and 1 thereafter;

wy×lib and px×lib are interaction variables;

μ_{it} = error term.

An application of this model gives the following results.

Explanatory variables	Regression results
RER growth	-0.03 (3.33)**
World Income growth	1.72 (5.02)**
Lagged export growth	0.07 (0.92)
Export duties	-0.19 (2.12)*
Liberalization	0.50 (5.15)**
Slope dummy, wy lib	0.15 (5.05)**
Slope dummy, px×lib	-0.02 (2.94)*
Long-run income elasticity	1.85
Long-run price elasticity	-0.003

Note: Column (ii) of table 2, where figures in parenthesis ( ) are t-ratios and **, * indicate that a coefficient is significant at the 1, 5 significance levels, respectively.

The estimated equation import growth function takes the following form:

$$m_{it} = \alpha_i + \beta_1 pm_{it} + \beta_2 y_{it} + \beta_3 m_{t-1} + \beta_4 d_{it} + \beta_5 lib_{it} + \beta_6 aid_{it} + \beta_7(pm \times lib)_{it} + \beta_8(y \times lib)_{it} + \beta_9(aid \times lib) + \varepsilon_{it}$$

where:

m_{it} = import growth

= are country-specific effects;

pm = the growth in relative prices;

y = the growth of real income;

</div>

Box 12 (contd.)

d_{it} = import duties;

lib_{it} = dummy variable that equals 0 before the starting year of the liberalization episodes as per table 37, and 1 thereafter;

aid = the aid variable as a share of GDP;

ε = the error term.

The application of this model gives the following results:

Explanatory variables	Regression results
RER growth	-0.11 (4.82)**
Income growth	1.63 (5.99)**
Lagged import growth	0.13 (1.50)
Import duties	-0.12 (2.09)*
Liberalization	1.87 (5.94)**
Aid growth	0.29 (4.29)**
Slope dummy, y lib	0.21 (6.05)**
Slope dummy, pm lib	-0.12 (6.41)**
Slope dummy, aid lib	0.53 (4.44)**
Long- run income elasticity	1.87
Long-run price elasticity	-0.13

Note: Column (ii) of table 5.

The estimated equation for the trade balance and the current account takes the following form:

$$TB/GDP_{it} = \beta_1 + \beta_2(TB + \beta_3(w)_{it} + \beta_4(y)_{it} + \beta_5(p)_{it}$$
$$+ \beta_6(d_x)_{it} + \beta_7(d_m)_{it} + \beta_8(TOT)_{it} + \beta_9(lib)_{it} + \beta_{10}(y \times lib)_{it} + \beta_{11}(aid)_{it} + \beta_{12}(aid \times lib)_{it} + \varepsilon_{it}$$

where:

w = the growth of world income;

y = the growth of domestic income;

p = the change in RER;

d_x = export duties as share of total exports

d_m = import duties as share of total imports

TOT = the nominal terms of trade;

Lib dummy variable that equals 0 before the starting year of the liberalization episodes as per table 37, and 1 thereafter;

Aid = the ratio of aid to GDP;

Below are the model's results, where the first column gives the results for the trade balance and the second those for the current account:

Explanatory variables	Trade balance
Lagged trade balance	0.97 (5.70)**
World income growth	0.31 (2.73)*
Income growth	-0.2 (2.5)*
RER growth	0.01 (0.22)
Export duties	-0.18 (0.14)
Import duties	0.15 (0.48)
Liberalization	-1.30 (3.21)**
Aid	0.95 (2.23)*
Y * lib	-0.33 (2.91)*
Aid * lib	0.13 (2.72)*
TOT	-0.09 (1.12)

Source: Santos-Paulino (2003).

[1] For a review of the GMM estimation technique, see Greene (1997).

- In the LDCs, as in the developing countries, the worsening of the trade balance is due not only to the autonomous response of imports to trade liberalization, but also to the fact that trade liberalization has increased the growth rate, which in turn has raised import growth.

- In the LDCs, the autonomous response of imports to liberalization, and the income effect of trade liberalization on imports, have partly been offset by the interaction between aid inflows and trade liberalization. In the post-trade liberalization period there has been a fall in aid, which in turn has reduced import growth and limited the worsening of the trade balance.

These conclusions are important for understanding the impact of trade liberalization on the balance of payments in the LDCs. They suggest that the export response to trade liberalization has been smaller in the LDCs than in other developing countries. This is likely to be related to weaknesses in domestic productive capacities and the incomplete development of the domestic market economy. But at the same time, the import response is also lower in the LDCs. This is related to the fact that the trade liberalization episodes in the LDCs have occurred along with higher aid inflows, and these have tapered off after the economy has liberalized. In contrast, although there is no evidence to support this, it may be hypothesized that in other developing countries trade liberalization has been associated with increased private capital inflows, which magnified the impact of trade liberalization on imports. The overall effect is that in both the LDCs and other developing countries the trade balance has worsened, but more so in other developing countries.

Although the worsening of the trade balance has occurred to a lesser extent in the LDCs than in other developing countries, the fact that the impact of trade liberalization on import growth is higher than its effect on export growth implies that the shift to a liberalized trade regime exacerbates the problem of sustainable financing of the trade deficit, which LDCs always face. The tightening of the balance of payments after trade liberalization in developing countries leads Santos-Paulino and Thirlwall to conclude that "overall, free trade and flexible exchange rate are no guarantee that unemployed domestic resources are easily converted into scarce foreign exchange" (Santos-Paulino and Thirlwall, 2004: 70). The evidence for the developing countries suggests that a similar conclusion can be drawn for the LDCs. Moreover, given the continuing marginalization of the LDCs in the context of private capital flows after economic reforms (see *The Least Developed Countries Report 2002*, chapter 3), the process of trade liberalization has exacerbated aid dependence and, to the extent that aid is not provided in grants and is not building up trade capacity, it has increased the likelihood of another debt crisis in the future.
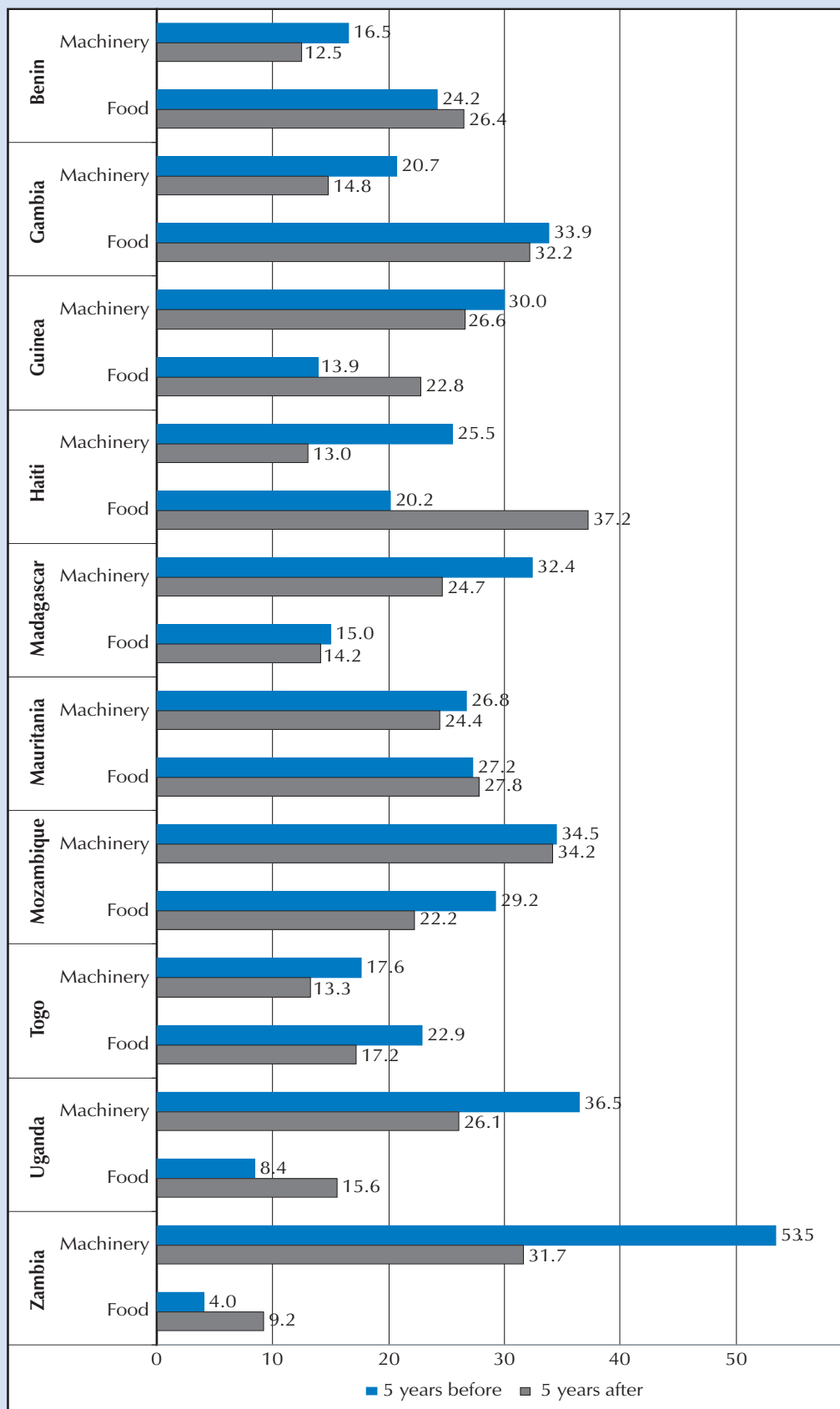
4. Changes in import composition

The increase in import growth as a result of trade liberalization could have positive effects on the rate and sustainability of growth if increased imports lead to increased investment. But what has been happening in the LDCs after trade liberalization is that there are significant shifts in the composition of exports. Chart 37 shows the emerging pattern. In every case, machinery imports account for a lower share of total merchandise imports after trade liberalization than they did before liberalization. In all cases, consumer-goods imports account for a higher share of total merchandise imports after liberalization than before liberalization. In the majority of cases, food imports are also increasing as a share of total merchandise imports.

The fact that the impact of trade liberalization on import growth is higher than its effect on export growth implies that the shift to a liberalized trade regime exacerbates aid dependence as well as the problem of sustainable financing of the trade deficit, which LDCs always face.

In every case, machinery imports account for a lower share of total merchandise imports after trade liberalization than they did before liberalization. In the majority of cases, food imports are also increasing as a share of total merchandise imports.

CHART 37. IMPORTS OF FOOD AND MACHINERY IN SELECTED LDCS PRE- AND POST-TRADE LIBERALIZATION
(As percentage of total merchandise imports)

Benin	Machinery	16.5 / 12.5
	Food	24.2 / 26.4
Gambia	Machinery	20.7 / 14.8
	Food	33.9 / 32.2
Guinea	Machinery	30.0 / 26.6
	Food	13.9 / 22.8
Haiti	Machinery	25.5 / 13.0
	Food	20.2 / 37.2
Madagascar	Machinery	32.4 / 24.7
	Food	15.0 / 14.2
Mauritania	Machinery	26.8 / 24.4
	Food	27.2 / 27.8
Mozambique	Machinery	34.5 / 34.2
	Food	29.2 / 22.2
Togo	Machinery	17.6 / 13.3
	Food	22.9 / 17.2
Uganda	Machinery	36.5 / 26.1
	Food	8.4 / 15.6
Zambia	Machinery	53.5 / 31.7
	Food	4.0 / 9.2

■ 5 years before   ■ 5 years after

Source: UNCTAD secretariat estimates, based on UN COMTRADE data.
Note: In accordance with SITC, Revision 2, food includes codes 0+1+22+4. Machinery imports, as defined here, include codes 7-775-781+87+881+884.
For reference periods, see table 39.

On the basis of these trends, it seems likely that while import growth following trade liberalization may be good for consumption, it is not necessarily good for supporting a sustained increase in the rate of economic growth based on productive investment.

F. Prospects for substantial poverty reduction after trade liberalization: inclusiveness of economic growth

An analysis of the inclusiveness of the economic growth process in the post-liberalization trade regime is much more difficult than an analysis of the sustainability of economic growth. It requires data on changes in inequality and employment, which are simply unavailable at present in the absence of more detailed country studies. However, there are some emerging tendencies that give cause for concern. Drawing in part on findings from the DTIS, three main concerns are discussed here:

(i)   The enclave-led growth in LDCs whose major exports are manufactures, mining or tourism;

(ii)   The lack of domestic market integration and limits to agrarian commercialization, which may exacerbate enclave-led growth, but which is also found in agricultural-commodity-exporting LDCs with a low population density; and

(iii) Increasing population pressure and environmental degradation in the agricultural-commodity-exporting LDCs with a high population density, where non-agricultural exports are not being developed quickly enough.

1. ENCLAVE-LED GROWTH

The problem of enclave-led growth is exemplified by two LDCs which have undertaken deep liberalization — Guinea and Madagascar. These two countries are noteworthy because their export performance improved significantly in the 1990s and, in terms of the classification of the trade–poverty relationship on the basis of trends in private consumption per capita (see table 31, chapter 3), both are virtuous cases in which export expansion is associated with an increasing average private consumption per capita of over 1 per cent per annum. Along with rising exports, average private consumption per capita increased by more than 1 per cent per annum during 1990–2000 in Guinea and during 1995–2000 in Madagascar. However, the form of economic growth in both these cases was not broad-based.

In Guinea, the export enclave fuelling economic growth is capital-intensive mining focused on bauxite and aluminium. There is an artisanal mining subsector focused on diamonds, in which approximately 100,000 people are employed. This subsector somewhat increases the employment intensity of mining activities. Agriculture is the main source of livelihood for most of the population, employing two thirds of the economically active population, but it contributes just 17 per cent of GDP. According to household survey data, 88 per cent of the poor lived in rural areas in 1994. The overall incidence of poverty for the country as whole was 40 per cent: 7 per cent in the capital city, Conakry, but 53 per cent in the rural areas and 62 per cent in the northern parts of the country (High Guinea).

The problem of enclave-led growth is exemplified by Guinea and Madagascar, which have undertaken deep liberalization. Both are virtuous cases in which export expansion is associated with an increasing average private consumption per capita. However, the form of economic growth in both these cases was not broad-based.

Since 1986, Guinea has undertaken deep trade liberalization; in the newly liberalized trade regime, exports as a ratio of GDP increased from 19 per cent in 1996 to 28 per cent in 2001. But the DTIS has found that export expansion and open trade has had a "negligible impact" on poverty. It states that "Guinea's current position as a global trading partner, which is highly dependent on mining activities, has not led to genuine poverty reduction. This is primarily due to the fairly capital-intensive nature of the mining sector, its weak ties to the rest of the economy, and to the weakness of the State tax base, which leave little room to use government revenues from the mining sector in poverty reduction programs" (Integrated Framework, 2003b: 8–9). Outside the mining sector import-substitution industries have downsized considerably as "the private sector has not taken over the public enterprises of which a large number have been liquidated" (Integrated Framework, 2003b: 5). Exports of manufactured goods have fallen with the disappearance of public enterprises. Moreover the process of trade liberalization has not led to increased agricultural exports. Rather, the relative importance of agricultural exports has declined under the new liberalized trade regime. Though tourism is expanding, it still plays a minor role in the economy.

Whereas Guinea exemplifies the non-inclusive nature of growth in a country with a capital-intensive enclave, Madagascar exemplifies a non-inclusive form of economic growth in a country with a labour-intensive enclave.

Whereas Guinea exemplifies the non-inclusive nature of growth in a country with a capital-intensive enclave, Madagascar exemplifies a non-inclusive form of economic growth in a country with a labour-intensive enclave. This is particularly important because Madagascar could be seen to offer a successful model in many ways. Trade liberalization has been associated with diversification out of primary commodity exports into fast-growing manufactured exports. The country has been able to attract FDI, which has provided the necessary investment, technology and marketing know-how to break into international markets. At the national level, the whole process has been significantly facilitated through creative institutional innovation, with the establishment of an export processing zone (EPZ). Moreover, at the international level, the process has been accelerated through the provision of preferential access to OECD markets (see next chapter). The share of exports of goods and services in GDP has increased by a third since 1996, and, according to the IMF, the exchange rate reflects the broad fundamentals of the economy (Integrated Framework, 2003c, overview: 11). However, under the post-liberal trade regime, a two-speed pattern of economic growth has emerged, which is likely to leave the majority of the population stuck in extreme poverty.

The three key components of the structure of the economy are: the agricultural sector, which employs 75 per cent of the active population and provides nearly 40 per cent of the GDP; the EPZ, which contributes 2 per cent of GDP, and in 1997 it employed 0.06 per cent of the total economically active population; and domestic industries which account for slightly more than 12 per cent of GDP and provide 150,000 to 200,000 jobs. Most of the poor are located in the rural areas and are employed in agricultural activities. But agricultural growth has been low and volatile, and there is a concern that rice imports will undermine production incentives. With trade liberalization, the decline in agricultural exports of the 1980s has been reversed and there has been diversification into new products. But agricultural exports were lower in 1999 than in 1980, with the rise in non-traditional exports (notably fruits, vegetables, fish and cotton) being insufficient to offset the decline in traditional exports (coffee, spices, sugar and sisal). The most significant growth is fish exports, especially shrimp, but participation of the poor in this activity is through employment in medium- to large-scale operations.

Within the EPZ, the rate of growth of output and employment has been rapid. But in the newly liberalized economy, domestic industries outside the EPZ are "struggling to compete with imports and gradually losing steam"(Integrated Framework, 2003c, Background Reports: 62). In agri-food, beverages and textiles, imports represented only 22 per cent, 12 per cent and 5 per cent of domestic consumption, respectively, in 1996. But over the 1997–1999 period, less than 40 per cent of domestic market growth in these sectors was accounted for by domestic producers; the rest was met by imports. In the paper and printing and leather industries, domestic output fell by 15 per cent and 47 per cent respectively, whereas imports increased strongly by 88 per cent and 159 per cent respectively (ibid: 62–63). The only sectors of Malagasy industry outside the EPZ which grew in the second half of the decade were tobacco and beverages. Thus, "the Malagasy economy is increasingly characterized by segmented growth, the dynamism of the EPZ contrasting with the [anaemia] of the industrial sector outside it" (Integrated Framework, 2003c, overview: viii).

The weak performance of the domestic industrial sector outside the EPZ is important because it is this sector that has the closest linkages with the agricultural economy. The DTIS notes a vicious circle in which industrialists in downstream sectors face high costs of local inputs. Such high costs are attributable to the inability of upstream producers to attain economies of scale because of the small domestic market, and low levels of exports by firms outside the EPZ. High costs of production caused by small-scale production raises the costs of final products. Since final products are expensive, it is difficult to increase their domestic market share or export them, thus reinforcing the suboptimal scale problem. Releasing market forces has strengthened this vicious circle, rather than enabling the development of production complementarities. As the DTIS states, "a pure market solution is unlikely to take place on a sufficient scale to alleviate the problem and may not be enough in itself" (Integrated Framework, 2003c, background reports, 67).

The prospects for poverty reduction are not encouraging. The DTIS includes a simulation that assumes growth in garment exports at 20 per cent per annum in the period 2000–2003, and then at 10 per cent per annum during the period 2003–2009; it also assumes growth in tourism at 10 per cent per annum throughout the period. But if agricultural production grows at 1.5 per cent per annum, the same as it did in the 1990s, and domestic industry outside the EPZ grows at 2 per cent per annum, the projection indicates that the proportion of the population living below the poverty line will increase from 71 per cent in 1999 to 72 per cent in 2009. This implies that an average annual export growth of 13 per cent for garments and 10 per cent for tourism over the period 2000–2009 will result in no change in the incidence of poverty and an increase in the number of poor people by 3.8 million.

The key to poverty reduction in Madagascar lies in the agricultural sector. But the DTIS notes that the causes of the steady decline in agriculture "extend beyond trade and price incentives" and "an improvement in trade policies may not be sufficient to restore sustained growth to the agriculture sector" (Integrated Framework, 2003c, overview: 41; Cogneau and Robilliard, 2000). Policy simulations show that liberalization of rice imports is in fact the least effective policy for promoting agriculture (Stifel and Randrianarisoa, 2004).

The cases of Guinea and Madagascar are important, as they are both "successful countries" in terms of export expansion and a slowly rising average private consumption per capita. But the emerging pattern of growth in these

For Madagascar, the projection indicates that an average annual export growth of 13 per cent for garments and 10 per cent for tourism over the period 2000–2009 will result in no change in the incidence of poverty and an increase in the number of poor people by 3.8 million.

newly liberalized economies is not inclusive. It is also possible that because it is not broad-based it will not be sustainable. It is noteworthy in this regard that both these countries have been affected by political instability in the last five years.

Avoiding enclave-led growth requires attention to agricultural development as well as expansion of exports. The experience of Bangladesh offers an example where sustained and substantial poverty reduction has occurred through an increase in rice productivity in rural areas, achieved through a combination of improved seeds, increased fertilizer use and public and private investment in irrigation, and expansion of labour-intensive manufactured exports (Arndt et al., 2002). But even there, international migration and increases in workers' remittances have played a key role in the whole process.

2. LACK OF DOMESTIC MARKET INTEGRATION AND HIGH LEVEL OF SUBSISTENCE PRODUCTION

The competitiveness of domestic markets is adversely affected by the poor physical infrastructure and lack of transport services. High transaction costs in getting produce from farms to markets, as well as the costs and risks of purchasing foodstuffs, have encouraged households to maintain some degree of subsistence production even when they could expect higher returns through specialization in, and sale of, export or food crops.

A second problem regarding the inclusiveness of the growth process arises because of the pursuit of rapid and deep trade liberalization in countries where there is very weak domestic market integration and a high level of subsistence orientation of production in rural areas. This problem is noted in a number of DTISs, including those on Madagascar, Ethiopia and Guinea (see also Tsikata, 2003). The problem can occur along with enclave-led growth of the type discussed above. But it is also likely to occur in agricultural-commodity-exporting LDCs with a low population density.

Countries such as Burkino Faso, Ethiopia, Mali and the United Republic of Tanzania have a low-density road network, and the quality of rural roads is generally poor. Transport services are also expensive under these conditions. A vicious circle can arise in remote areas as high transport costs reduce demand for transport, and low demand for transport increases transport costs. The competitiveness of domestic markets is adversely affected by the poor physical infrastructure and lack of transport services. Thus farmers have few alternatives for selling what they produce or for buying simple consumer goods. With the ending of pan-territorial pricing associated with marketing boards, the terms of trade worsened for farmers in remote areas and private traders often did not replace the public sector in providing production inputs such as fertililizer or seeds.

High transaction costs in getting produce from farms to markets, as well as the costs and risks of purchasing foodstuffs, have encouraged households to maintain some degree of subsistence production even when they could expect higher returns through specialization in, and sale of, export or food crops. According to the Integrated Framework (2003a, vol. 2, annex 12, box 12.2), market failures exist because there has to be a minimum threshold of market development before farmers begin to shift into market-oriented activities since the benefits of these activities depend on how many people within the community are engaged in them. High transaction costs also mean that large segments of rural economies within African LDCs consist of non-tradables such as services, bulky traditional starchy foodstuffs, perishables and locally processed foods. The high proportion of non-tradables implies that there are high multiplier effects from market development and increased integration of these rural communities with the rest of the national economy. But in the absence of such developments, a large part of the rural economy may be demand-constrained in the sense that many people in rural areas can remain

unemployed for long periods of time if effective local demand for what they produce does not rise (Delgado, 1992; 1996).

As noted earlier, many of the poor in the agricultural-commodity-exporting LDCs live in rural areas and are engaged in partly subsistence-oriented farming of traditional food crops rather than export activities. The lack of domestic market integration, the high degree of subsistence orientation of rural households and the prevalence of non-tradables imply that large parts of the poorest population tend to be bypassed during the process of trade liberalization and economic reform.

3. RURAL POPULATION PRESSURE, AND ABSENCE OF NON-AGRICULTURAL EMPLOYMENT

The problem of enclave-led growth arises in a situation in which export growth in the non-agricultural sector (manufactures, mining or tourism) is inadequately linked to agricultural development. But there is another, converse type of problem — one in which growth is based on agricultural exports but where non-agricultural employment does not develop rapidly enough to relieve increasing population pressure on land resources. Unlike the first two problems, this is not identified in the DTIS. But it is apparent that it is an emerging problem in agricultural-commodity-exporting LDCs that have a high population density. Examples are Burundi, Malawi and Rwanda.

The lack of domestic market integration, a high degree of subsistence orientation of rural households and the prevalence of non-tradables implies that large parts of the poorest population tend to be bypassed during the process of trade liberalization and economic reform.

Malawi is a particularly good example of the extent to which this problem can be addressed through deep trade liberalization. During the 1970s, economic growth was based on the expansion of agricultural exports – initially tea and tobacco, and then sugar — which were produced on large-scale estates employing wage labour or allowing small farmers to act as sharecroppers. For a time, the growth strategy was highly successful and the country was heralded as a success story because it apparently had avoided "urban bias". There were very high export growth rates and the investment rate also increased strongly. However, the strategy was highly inegalitarian. Smallholders were restricted in the varieties of tobacco they could cultivate and also in the organizations to which they could sell their crops.

Economic reforms began in the early 1980s following an economic crisis. The initial strategy was to increase smallholder production of exportable cash crops through improved price incentives and by liberalizing agricultural markets. However, the implementation of this policy was affected by the Government's concern that this would undermine food self-sufficiency. Dependence on imported food was a particular concern, given the landlocked position of Malawi and consequent high import costs, as well as the dependence of many poor households on purchased food. The restrictions on smallholder participation in most areas of tobacco production remained in place. But in response to the dissent that the highly inegalitarian growth model was fostering, the political leadership encouraged a new wave of smaller estates to be established by entrepreneurial small-scale business people and farmers. According to the Malawi DTIS, the system of production controls on tobacco in the 1970s and 1980s "served as a primary means of allocating opportunities and distributing income and wealth in the country" (Integrated Framework, 2003d: 2).

In 1994, the country held its first democratic elections since 1960. The new Government sought to achieve a more broad-based pattern of growth. One major way it did so was by amending the Special Crops Act to enable a greater

participation of smallholders in tobacco exports. By 1996, up to 200,000 smallholders had taken up tobacco cultivation (Integrated Framework, 2003d: 3) and the share of smallholders in the production of Malawi burley tobacco increased from 16 per cent in 1994 to 70 per cent in 2001. The more inclusive growth pattern has contributed to improving the virtuous trade–poverty relationship observed in Malawi in the second half of the 1990s. But in 2001 and 2002 there were increasing problems in terms of declining productivity, falling prices and lower quality.

The more inclusive growth process of the 1990s coincided with the deepening of trade liberalization. But trade liberalization was also associated with de-industrialization. The annual growth of manufacturing value-added fluctuated at around 3.3 per cent between 1987 and 1995, but between 1996 and 1999 it stagnated (Harrigan, 2001). Many firms contracted owing to import competition. Textile production shrank to 44 per cent of its 1990 level by 1996, large firms manufacturing soaps, detergents and oils ceased domestic production, and the poultry industry collapsed (ibid.: 309). Moreover, "the liberalization of imports in the early 1990s virtually wiped out the domestic garment industry owing to large imports of less expensive goods from Asia plus large quantities of second-hand clothes" (Integrated Framework, 2003d, overview: 84). Although formal-sector manufacturing accounted for less than 2 per cent of total employment, the job losses and reduced non-agricultural employment opportunities have created hardships and it has proved difficult to develop manufactured exports for a landlocked country like Malawi. Exports of cotton fabric halved between 1996 and 2000 (ibid.: 85).

The World Bank (1997) has noted that in the long-run smallholder agriculture cannot provide rising incomes or employment for 80 per cent of an ever-increasing population in an already densely populated country. Soil fertility is declining and many households live on farms that are too small for them. The critical issue now is how structural transformation, which would allow more people to be employed outside agriculture, could be achieved in this landlocked country after trade liberalization.

At present, very few LDCs have restrictive trade regimes. Many have undertaken deep trade liberalization, resulting in a very open trade regime by international standards.

G. Conclusions

This chapter has shown that there has been an extensive process of trade liberalization in the LDCs since the late 1980s. At present, very few of them have restrictive trade regimes. In fact many have undertaken deep trade liberalization, in some cases liberalizing faster than Chile did in the 1970s and 1980s resulting in a very open trade regime by international standards. African LDCs have undertaken deeper trade liberalization than Asian LDCs. In the 1980s Asian LDCs depreciated their currencies much more than African LDCs, but in the 1990s the opposite was the case.

Until recently, there was no deliberate policy attempt to make trade liberalization work for poverty reduction.

The liberalization process has been conducted within the framework of IMF and World Bank structural adjustment programmes rather than as part of a multilaterally negotiated reduction of global tariff barriers. Generally the process of trade liberalization has been associated with an increase in aid inflows. The extent and depth of trade liberalization reflects the wide and long-standing involvement of most LDCs with structural adjustment programmes. Using the IMF trade restrictiveness index as a measure of openness, some of the LDCs now have more open trade regimes than other developing countries, and as open as the high-income OECD countries. Until recently, there was no deliberate policy attempt to make trade liberalization work for poverty reduction. But the process

of trade liberalization has now created a new environment for development and poverty reduction in the LDCs.

The short-term effects of the process of trade liberalization on poverty vary considerably between countries, with some groups benefiting and others losing. There has been a tendency for the countries that have opened more gradually and less deeply to have a better trade–poverty relationship than those that have opened further and fastest, and better also than those which have been restrictive. These are related as much to export specialization as to trade liberalization, as well as to differences in the speed of trade liberalization in Asian and African LDCs.

The central issue now is whether the new policy environment is likely to facilitate substantial and sustained poverty reduction in the long run. In this regard, there are some positive and some negative elements. For the LDCs which have undertaken deep trade liberalization, comparisons of economic trends before and after trade liberalization indicate that growth rates of GDP, exports and investment are all higher in the post-liberalization economic environment. But given high population growth rates, the rates of economic growth that are being achieved are in many cases not sufficient to yield GDP per capita growth rates that will make a major dent in poverty alleviation. Moreover, there are reasons to believe that sustainability of the positive growth, export and investment trends is still not assured. First, the rate of domestic savings remains very low, and thus the post-liberalization countries remain highly dependent on foreign savings, particularly aid. Secondly, there is evidence of post-liberalization aid fatigue, in the sense that aid inflows tapered off after trade liberalization accelerated. Thirdly, although higher export growth rates have been achieved, the composition of exports is not yet shifting favourably towards greater specialization in dynamic products and increased competitiveness. Certainly, there is a positive trend towards less export concentration, which is associated with the emergence of new export products. But this positive development is as yet so insignificant that it does not affect the overall export performance in terms of reversing the marginalization of these countries in the world economy. The process of trade liberalization in the LDCs has reinforced specialization in commodity exports rather than promoting a shift to manufactured exports. As the next chapter shows, the latter is related more to preferential access in developed-country markets than to trade liberalization in the LDCs themselves.

An analysis of the impact of trade liberalization on the balance of payments in the LDCs shows that the process has increased exports and even more so imports. However, in comparison with developing countries as a whole, the process of trade liberalization has had a smaller effect on exports and imports in the LDCs. In LDCs, the increase in exports is likely to reflect supply responsiveness, but the shift to a more open trading regime is associated with a fall in aid, which in turn has reduced import growth. In the case of developing countries, it may be that higher import growth rates are related to higher private capital inflows in the post-liberalization era. The process of trade liberalization worsens the trade balance in both LDCs and developing countries. The effect is smaller in the LDCs than in developing countries because of the smaller effect of liberalization on import growth. But given the continuing marginalization of LDCs in global private capital flows, the effect on the trade balance implies that the process of trade liberalization has exacerbated aid dependence. Moreover, to the extent that aid is not provided in the form of grants and is not building up trade capacity, it has increased the likelihood of a renewed debt crisis in the future.

The short-term effects of the process of trade liberalization on poverty vary considerably between countries, with some groups benefiting and others losing. There has been a tendency for countries that have opened more gradually and less deeply to have a better trade–poverty relationship.

The process of trade liberalization in the LDCs has reinforced specialization in commodity exports rather than promoting a shift to manufactured exports.

Given the continuing marginalization of LDCs in global private capital flows, the effect on the trade balance implies that the process of trade liberalization has exacerbated aid dependence.

Enclave-led growth is becoming a problem in some LDCs whose major exports are manufactures and mining. This problem is also evident in agricultural-commodity-exporting LDCs with a low population density.

The inclusiveness of the post-liberalization growth process also gives cause for concern. Lack of data implies that there is a need for country studies on changes in inequality and employment within LDCs. However, drawing on information provided by the DTIS, it is clear that enclave-led growth is becoming a problem in some LDCs whose major exports are manufactures mining. With this form of economic growth, there are weak links between the rapidly growing export enclave and the agricultural sector where the majority of the population and the majority of the poor earn their livelihoods. In these circumstances, it is possible to have very high rates of export growth but no change in the incidence of poverty.

A further problem arises, which is diminishing the inclusiveness of the post-liberalization growth process. Deep trade liberalization at the national border has been undertaken in countries with very weak internal transport and communications infrastructure, weak levels of domestic market integration and with a high level of subsistence-oriented production. In these circumstances, many poor people and poor regions are being left out of the growth process, and liberalization alone cannot break the vicious circles that reduce the market involvement of rural households and cause a large proportion of output to be tradable only locally. This is exacerbating the problem of enclave-led growth in countries that export manufactures, mineral and oil; it is also evident in agricultural-commodity-exporting LDCs with a low population density.

The policy challenge facing the LDCs and their development partners now is how to promote development and poverty reduction in a very open national economy situated in an asymmetrically liberalized international economy.

In agricultural-commodity-exporting LDCs with a high population density, a different problem is emerging, that of increasing population pressure on land, environmental degradation and impoverishment due to small farm sizes and yields that are too low to support households. The development of non-agricultural employment is necessary to relieve the pressure on land. But in the LDCs for which trends are reported in the DTIS, rapid and deep liberalization has been associated with de-industrialization as import-substituting industries collapse when they are exposed to international competition without any prior preparation, and as the processing of primary products for export is cut back. It has proved difficult for the agricultural-commodity-exporting LDCs with a high population density to sufficiently develop manufactures or services for export as an alternative source of non-agricultural employment, and thus the increasing pressure on land resources continues to intensify.

There is a need for innovative thinking about how to promote development and poverty reduction in a newly liberalized economy.

The policy challenge facing the LDCs and their development partners now is how to promote development and poverty reduction in a very open national economy situated in an asymmetrically liberalized international economy. At the national level, this requires much more than the adoption of "behind-the-border" measures to ensure that any beneficial effects of trade liberalization are "passed through" to the poor. There is rather a need for innovative thinking about how to promote development and poverty reduction in a newly liberalized economy. Elements of a post-liberalization development strategy that can effectively reduce poverty in countries where extreme poverty is all-pervasive need to be defined. Moreover, it is necessary to address the questions of how aid for trade and the international trade regime can be improved to support development and poverty reduction in such countries. The final two chapters of this Report take up these issues.

Notes

1. According to the IMF trade restrictiveness index, Rwanda has an open trade regime, but it is not quite as open as those of Hong Kong (China) and Singapore.
2. Due to the various exchange-rate regimes adopted by the LDCs, devaluation and depreciation are treated synonymously throughout this chapter.
3. Benin, Burundi, Cape Verde, Ethiopia, the Gambia, Haiti, Madagascar, Mali, Mauritania, Nepal, Senegal, Sudan, Togo, Uganda, the United Republic of Tanzania and Zambia. We would like to thank the national trade Ministries for their helpful support in providing us with the information on changes in their trade policy regimes.
4. Bangladesh, Bhutan, Burkina Faso, Cambodia, Guinea, the Lao People's Democratic Republic, Lesotho, Malawi, Maldives, Mozambique and Solomon Islands.
5. Keen and Ligthart (2002) identify the failure to find alternative sources of revenue as a major reason for trade policy reversal. In the case of Senegal, the change in policy could also have been due to the fact that the country was unable to devalue unilaterally.
6. Rodrik (1992) quantifies uniformity into a maximum of three tariff rates. However, taking into account the characteristics of the LDCs, a tariff scheme with four or five rates may still be referred to as uniform.
7. The Diagnostic Trade Integration Studies are prepared in the context of the Integrated Framework for Trade-Related Technical Assistance (IF, for short).
8. Unless of course there has been a substantial increase in labour productivity in the non-traded goods in these countries, which is highly unlikely.
9. This indicator was calculated as the ratio of two ratios: the ratio of exports for each sector of an economy to that economy's total exports relative to the ratio of world exports for each sector to total world exports. The greater a sector's RCA indicator, the more the economy specializes in that sector with respect to world specialization patterns, thus revealing a stronger comparative advantage in that sector.
10. In mathematical terms, the four components are:

$$\Delta x_j = \sum_i (\Delta x_{ij} y_{ij}^{t-1}) + \sum_i (x_{ij}^{t-1} \Delta y_{ij}) + \sum_i (\Delta x_{ij} \frac{\Delta y_{ij} + |\Delta y_{ij}|}{2}) + \sum_i (\Delta x_{ij} \frac{\Delta y_{ij} - |\Delta y_{ij}|}{2})$$

| Market share Effect | Structural market effect | Market growth adaptation effect | Market stagnation adaptation effect |

where:

$x_j = \sum_i X_{ij} / \sum_i \sum_j X_{ij}$ a country's aggregate share of exports to the total world export

$x_{ij} = X_{ij} / \sum_j X_{ij}$ a country's share of a given sector with respect to its total exports

$y_{ij} = \sum_j X_{ij} / \sum_i \sum_j X_{ij}$ a sector's share of total exports with respect to the total world export

X_{ij} exports by firms located in country j in sector i

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