

UNITED NATIONS CONFERENCE ON TRADE AND DEVELOPMENT  
Geneva

# **THE LEAST DEVELOPED COUNTRIES REPORT 2004**

## **Part Two: Chapter 3 HOW THE TRADE—POVERTY RELATIONSHIP WORKS IN PRACTICE**



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# How the Trade–Poverty Relationship Works in Practice

Chapter

3

## A. Introduction

From the analysis in the previous chapter it is clear that international trade can play a major role in reducing poverty in the LDCs. It is also clear, however, that the links between export expansion and poverty reduction are not automatic, but depend on various domestic and external conditions. This chapter looks at how the trade–poverty relationship works in practice in the LDCs.

The central message of the chapter is that the potential positive role of trade in poverty reduction is not being translated into reality in a large number of LDCs. The major policy challenge in linking international trade to poverty reduction in the LDCs is to bridge the gap between the positive role of trade identified in the previous chapter and the often neutral, and even negative, trade–poverty relationship which, the evidence of this chapter reveals, currently exists in too many LDCs.

The chapter discusses three major areas where international trade may not be working effectively to reduce poverty in the LDCs: trade performance; trade–growth linkages; and the form of economic growth associated with export expansion. Section B discusses the trade performance of the LDCs, indicating in particular the relationship between export structure and export dynamism. The trade performance of many LDCs improved in the 1990s, and section C presents evidence of the frequency with which export expansion during this period was associated with poverty reduction. Sections D and E examine some of the possible missing links between export growth and poverty reduction, focusing firstly on the relationship between trade and the rate of growth, and secondly on the relationship between trade and the form of economic growth. Particular attention is paid in section E to differences amongst the LDCs with regard to the level of income inequality, the balance between domestic demand and export expansion as sources of economic growth, and the intensity of domestic resource mobilization efforts. Section F summarizes the main findings.

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*The potential positive role of trade in poverty reduction is not being translated into reality in a large number of LDCs.*

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## B. Export structure, trade performance and the international poverty trap

The simplest reason for a breakdown in the trade–poverty relationship is a country's weak trade performance. Differences in export dynamism are closely related to differences in export structure.

### 1. BASIC FEATURES OF THE EXPORT STRUCTURE OF THE LDCs

The export structure of the LDCs was discussed in detail in *The Least Developed Countries Report 2002*.<sup>1</sup> It is worth recalling here its key features:

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*Amongst the LDCs, differences in export dynamism are closely related to differences in export structure.*

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*The non-oil primary-commodity-exporting LDCs have a low-productivity, low-value-added and weakly competitive commodity sector that is generally concentrated on a narrow range of products serving declining or sluggish international markets.*

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- The total merchandise exports of the LDCs are divided more or less equally between oil exports, non-oil commodity exports and manufactures exports. In the period 1999–2001, oil exports constituted 35 per cent of total merchandise exports, manufactures exports<sup>2</sup> 33 per cent and non-oil primary commodity exports 32 per cent.
- Service exports are a significant component of the total exports of goods and services of LDCs. In 1999–2001, they accounted for 17 per cent of the total.
- On the basis of a classification in the late 1990s, primary commodities are the major source of export earnings in 31 out of the 49 LDCs. Four countries are oil exporters; seven countries are predominantly mineral exporters; and 20 countries are predominantly agricultural exporters. The other 18 LDCs predominantly export either manufactures (mainly textiles and garments) or services (mainly tourism), or some combination of these.<sup>3</sup>
- There is a major difference between African LDCs and Asian LDCs in terms of their diversification into manufactures exports. In 1999–2001, textiles and garments exports constituted 61 per cent of total merchandise exports of Asian LDCs and 2 per cent of total merchandise exports of African LDCs. The main exceptions to the general African trend are Lesotho and Madagascar. Island LDCs generally specialize in services exports. But textiles and garments exports are also important to Cape Verde and Maldives.
- Whatever their main exports, the export structure of most LDCs is concentrated on a narrow range of products. For the group as a whole, the three leading export products constituted 76 per cent of total merchandise exports in 1997–1999.
- The non-oil primary-commodity-exporting LDCs have a low-productivity, low-value-added and weakly competitive commodity sector that is generally concentrated on a narrow range of products serving declining or sluggish international markets. In 1997–1999, 84 per cent of total primary commodity exports of this group of countries were unprocessed before export.
- Manufactures exports also tend to be narrowly concentrated on a few low-skill lines of manufacture with competition on the basis of cost, and industries have often been built up on the basis of market access preferences granted by developed countries, including especially the EU and the United States, as well as market access preferences granted by multilateral agreements, namely the Agreement on Textiles and Clothing (commonly known as the Multifibre Arrangement), which will be phased out by 1 January 2005.

## 2. TRADE PERFORMANCE IN THE 1980s AND 1990s

The trade performance of the LDCs in the 1980s and 1990s has two major faces. On the one hand, there was a great expansion of exports of oil, manufactures and services. As chart 16A shows, the value of manufactures exports increased by more than five times between 1980 and 2001, services exports doubled and oil exports almost quadrupled. On the other hand, however, these successes were offset by stagnation and decline in the value of non-oil commodity exports. By 2001 LDCs' non-oil commodity exports were 15 per cent lower than in 1980 in current value terms. Mineral exports from LDCs declined precipitously over this period, whilst agricultural exports after a

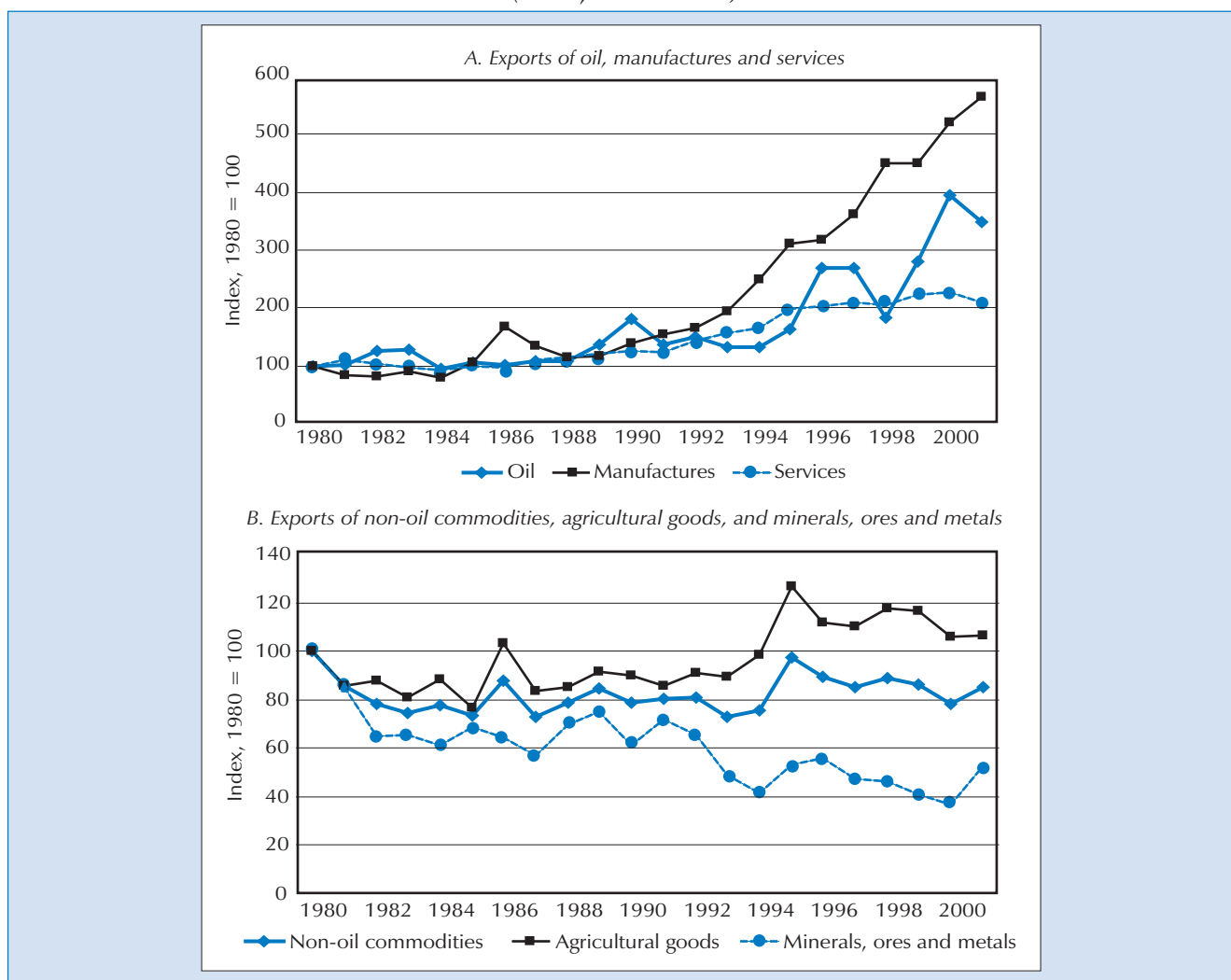
recovery between 1986 and 1995 subsequently fell back to a level just over 5 per cent higher than the 1980 value (chart 16B). Components of the weak export performance of commodity-dependent LDCs are discussed in box 7.

The two faces of trade development in the LDCs — stagnation and decline of non-oil commodity exports on the one hand and expansion of exports of manufactures, services and oil on the other hand — would be benign if they were offsetting each other on a country-by-country basis. But in practice, they are not. The main LDC oil exporters are Angola, Equatorial Guinea, Sudan (since 2000) and Yemen; the main LDC manufactures exporters are Bangladesh, Cambodia, Haiti, the Lao People’s Democratic Republic, Lesotho, Madagascar, Myanmar and Nepal; and the main services exporters are Cape Verde, Comoros, Djibouti, Gambia, Maldives, Samoa, Tuvalu and Vanuatu. It is these countries that largely drove the more positive export performance of the LDC group in the 1990s. The majority of LDCs — 27 out of 49 — are exporters of non-oil primary commodities. Their export growth rates have been much weaker and also more unstable.

*Between 1980 and 2001, there was a great expansion of exports of oil, manufactures and services. However, these successes were offset by stagnation and decline in the value of non-oil commodity exports.*

The diverse outcomes can be seen in table 30. An important fact which is evident in the table is that there was a significant improvement in export performance in the LDCs in the 1990s. In real per capita terms, the total exports

CHART 16. TRENDS IN LDCs’ EXPORTS, 1980–2001  
(Index, 1980 = 100)



Source: UNCTAD secretariat estimates, based on UN COMTRADE data (merchandise exports) and UNCTAD data (services exports).  
Note: Calculations based on data in current dollars.

### BOX 7. COMPONENTS OF THE WEAK EXPORT PERFORMANCE OF COMMODITY DEPENDENT LDCs

It is possible to have a greater insight into the weak export performance of non-oil commodity-exporting LDCs by identifying some of the factors that directly contribute to it, namely falling commodity prices, a small share of market-dynamic products and lack of competitiveness.

It is difficult to disentangle the influence of these three factors. But falling world commodity prices have had a major adverse effect on the export performance of commodity-exporting LDCs. Between 1980 and 2003, the price of food, including beverages, declined by 73.3 per cent to 26.7 per cent of its 1980 value; the price of agricultural raw materials declined by 60.7 per cent to 39.3 per cent of its 1980 value; and the price of minerals, ores and metals declined by 59.5 per cent to 40.5 per cent of its 1980 value. Declining commodity prices have affected some of the most important commodity exports of least developed countries. In the first half of 2003, the price of coffee was just 17 per cent of its 1980 value, cotton was 33 per cent and copper was 42 per cent.

These falls in commodity prices result in a significant loss of resources.<sup>1</sup> Box table 1 seeks to quantify the direct impact of the commodity price changes on LDC exports by estimating what LDC exports would have been in 2001 if the world prices for selected commodities, for which price data were available, had remained the same as in 1980. The table shows that the LDCs could have earned an additional \$1.2 billion through the export of these commodities if their prices had not declined. This is an increase of 12.6 per cent over the 2001 value of these commodities. Coffee-exporting LDCs could have earned an additional \$312 million, and cotton-exporting LDCs an additional \$386 million. Exports of minerals, ores and metals would have been \$715 million higher, that is about 25.1 per cent higher than their 2001 level.

A major reason why commodity-dependent countries find it difficult to achieve high export growth rates is that the growth rate of world exports for these products is slow. This partly reflects falling prices, but also weak import demand. On the basis of ITC estimates, it is apparent that only 12 per cent of the primary commodity exports of the LDCs in 1998 were in market-dynamic products, those in which world import demand was growing faster than average. In contrast, 70 per cent of the manufactures exports of the LDCs were in such products.

However, commodity-exporting LDCs have not only been exporting products for which world export growth rates have been slow, but have also been losing market share in some of their exports. Box table 1 provides some estimates of the direct impact of losses in world market share for specific primary commodities. It should be noted that the losses in market share may not be a matter of uncompetitiveness but rather reflect the fact that within these product groups there may be more market-dynamic or less market-dynamic products. Nevertheless, the patterns are interesting.

If the LDCs' share in world exports of all foods, agricultural raw materials and minerals, ores and metals, which are included in the table, had remained the same in 2001 as in 1980, their non-oil primary commodity exports would have been \$14.8 billion instead of \$9.3 billion (box table 1). The major losses in export revenue are due to a loss in market share in food exports and mineral exports, which each contribute about half of the total losses in export revenue. There is only a small loss in market share for agricultural raw materials exports. Within these broad commodity groups, there are also successes and failures. Within food exports, the LDCs gained market share in fish, wheat and sugar, but significantly lost market share in cocoa, coffee, fruits, rice, and vegetable oils and oil seeds. Within agricultural raw material exports, they gained market share in raw cotton, wood products, and jute and sisal, but lost market share significantly in tobacco and rubber. Within minerals there were major losses in market share in ore and copper exports, which together account for about 68 per cent of the total losses in market share in the selected commodities. At the same time, however, there were gains in market share in aluminium and gold.

What these data show is that as one disaggregates, the export performance of the non-oil commodity-exporting LDCs has positive aspects. The improved export performance in the 1990s, and the halting of the decline in marginalization of the non-oil commodity-exporting LDCs, reflect the fact that with regard to a number of commodities those countries have started gaining market share. However, their overall export performance is still hampered because their export structure is still focused on products for which growth of world imports is either declining or growing more slowly than average.

Finally, box table 1 provides an estimate of what the value of the LDCs' exports of the selected commodities would have been in 2001 if they had maintained their 1980 share of world exports and also if the level of world prices in 1980 had stayed the same. This simple counter-factual ignores possible increased production and investment which might have occurred if prices had not declined. But it suggests that without loss of market share and the decline in world prices, LDC exports of non-oil primary commodities would have totalled \$16.7 billion rather than \$9.3 billion. This difference is equivalent to about 3.8 per cent of the GDP of the LDCs in 2001.

<sup>1</sup> It is worth recalling in this context that the World Bank (2000) has estimated that the cumulative losses to non-oil-exporting countries in sub-Saharan Africa (excluding South Africa) from adverse terms-of-trade movements over the period 1970–1997 amounted to 119 per cent of the combined GDP of these countries in 1997 and 51 per cent of the cumulative net resource flows to them. That is to say, terms-of-trade losses associated with falls in commodity prices were equivalent to half the value of total capital inflows into those countries over that period.

## Box 7 (contd.)

BOX TABLE 1. ESTIMATES OF HYPOTHETICAL EXPORT REVENUE LOSSES OF THE LDCs IN SELECTED COMMODITIES, 1980–2001

Selected commodities and aggregates	Corresponding SITC Rev.2 codes	Actual value of exports in 2001 \$ millions	Scenario 1: If LDC shares in world exports had remained at 1980 levels				Scenario 2: If commodity prices on world markets had remained at 1980 levels			Scenario 3: If LDC shares and commodity prices had remained at 1980 levels		
			Hypothetical value of LDC exports in 2001 (value) \$ millions	Export revenue losses <sup>b</sup> (= actual minus hypothetical exports) \$ millions	% of actual export value	Hypothetical value of LDC exports in 2001 (value) \$ millions	Export revenue losses <sup>b</sup> (= actual minus hypothetical exports) \$ millions	% of actual export value	Hypothetical value of LDC exports in 2001 (value) \$ millions	Export revenue losses <sup>b</sup> (= actual minus hypothetical export) \$ millions	% of actual export value	
<b>Non-oil primary commodities<sup>a</sup></b>		9 290.2	14 798.5	5 508.3	59.3	10 460.1	1 169.9	12.6	16 683.8	7 393.6	79.6	
<b>Foods, beverages, oils</b>		3 290.8	5 347.6	2 056.8	62.5	3 821.0	530.2	16.1	6 370.9	3 080.1	93.6	
<b>Beverages</b>		613.0	1 768.5	1 155.5	188.5	911.8	298.8	48.7	2 746.5	2 133.5	348.0	
Cocoa and products	072,073	27.7	321.0	293.3	1 060.3	42.9	15.2	55.1	497.8	470.1	1 699.6	
Coffee and substitutes	071	443.6	1 208.1	764.5	172.3	755.1	311.5	70.2	2 056.4	1 612.9	363.6	
Tea and mate	074	141.8	239.5	97.7	68.9	113.8	-27.9	-19.7	192.3	50.5	35.7	
<b>Foods</b>		2 345.6	2 980.7	635.1	27.1	2 455.6	109.9	4.7	2 799.2	453.5	19.3	
Bananas and other fruits	057	186.4	808.7	622.3	333.8	82.5	-104.0	-55.8	357.7	171.3	91.9	
Beef and other meats	011,012,014	37.1	85.7	48.6	130.9	45.7	8.6	23.3	105.6	68.5	184.6	
Fish	034-037	1 562.1	1 289.4	-272.7	-17.5	1 617.1	54.9	3.5	1 334.8	-227.4	-14.6	
Maize	044	32.0	61.3	29.3	91.6	38.6	6.6	20.6	73.9	41.9	131.1	
Pepper and other vegetables	054	239.0	328.4	89.4	37.4	192.4	-46.6	-19.5	264.4	25.4	10.6	
Rice	042	36.8	291.0	254.2	690.1	59.0	22.2	60.2	466.2	429.4	1 165.9	
Sugar and products	061,062	228.7	113.2	-115.4	-50.5	388.4	159.7	69.9	192.3	-36.4	-15.9	
Wheat	041,046	23.5	3.1	-20.4	-86.7	31.9	8.4	35.7	4.3	-19.2	-81.9	
<b>Vegetable oil seeds and oils</b>		332.2	598.3	266.1	80.1	453.6	121.4	36.5	825.3	493.1	148.4	
Oilseeds, incl. soybeans	222,223	235.7	339.2	103.5	43.9	315.3	79.5	33.7	453.7	218.0	92.5	
Oils, incl. linseed oil	423, 424	96.5	259.1	162.7	168.6	138.3	41.9	43.4	371.6	275.1	285.1	
<b>Agricultural raw materials</b>		3 156.6	2 868.0	-288.6	-9.1	3 081.9	-74.7	-2.4	2 846.6	-310.0	-9.8	
<b>Textiles</b>		1 291.4	1 086.6	-204.8	-15.9	1 723.5	432.1	33.5	1 442.4	151.0	11.7	
Cotton, raw	263	831.5	624.4	-207.0	-24.9	1 217.0	385.6	46.4	914.0	82.5	9.9	
Cotton, manufactured	652	97.1	135.5	38.4	39.5	142.2	45.0	46.4	198.4	101.2	104.2	
Jute	264	59.4	50.4	-8.9	-15.1	56.3	-3.1	-5.1	47.8	-11.5	-19.4	
Sisal and other textiles	651,659	300.8	265.9	-34.8	-11.6	304.6	3.9	1.3	269.4	-31.4	-10.4	
Wool	268	2.6	10.3	7.7	289.6	3.3	0.7	24.6	12.8	10.2	385.6	
<b>Woods</b>		937.7	557.0	-380.6	-40.6	657.4	-280.3	-29.9	389.6	-548.1	-58.5	
Wood, rough	245-248	862.8	508.2	-354.6	-41.1	619.7	-243.1	-28.2	365.0	-497.8	-57.7	
Plywood and other manuf. woods	634,635	74.9	48.8	-26.0	-34.8	37.7	-37.2	-49.7	24.6	-50.3	-67.2	
<b>Others</b>		927.5	1 224.3	296.8	32.0	701.0	-226.5	-24.4	1 014.6	87.1	9.4	
Cattle hides and other hides, manuf.	211	125.6	198.6	73.0	58.1	91.8	-33.8	-26.9	145.1	19.5	15.5	
Cattle hides and other hides, raw	611,612	377.8	399.0	21.2	5.6	276.1	-101.7	-26.9	291.6	-86.2	-22.8	
Rubber, raw	232,233	36.4	140.7	104.3	286.3	57.4	21.0	57.6	221.7	185.3	508.8	
Rubber, manufactured	621,625,628	10.4	24.8	14.4	139.2	16.3	6.0	57.6	39.1	28.7	277.0	
Tobacco	121,122	377.4	461.3	83.9	22.2	259.4	-118.0	-31.3	317.1	-60.3	-16.0	
<b>Minerals, ores and metals</b>	27,28,68	2 842.8	6 582.9	3 740.1	131.6	3 557.3	714.5	25.1	7 466.3	4 623.5	162.6	
<b>Minerals</b>		60.6	116.7	56.1	92.6	62.4	1.8	2.9	120.1	59.5	98.3	
Phosphate rock and other minerals	271	60.6	116.7	56.1	92.6	62.4	1.8	2.9	120.1	59.5	98.3	
<b>Ores</b>		971.5	2 562.5	1 591.0	163.8	1 058.7	87.2	9.0	2 792.6	1 821.1	187.5	
Ores raw (incl. iron, mang., tungst.)	281,282, 287	697.5	1 637.4	939.9	134.7	760.1	62.6	9.0	1 784.3	1 086.9	155.8	
Ores, manufactured (incl. iron, mang., tungst.)	67, 689, 699	274.0	925.2	651.2	237.7	298.6	24.6	9.0	1 008.2	734.2	268.0	
<b>Metals</b>		990.7	3 784.6	2 793.9	282.0	1 157.6	167.0	16.9	4 366.6	3 375.9	340.8	
Aluminium	684	387.7	6.4	-381.3	-98.4	451.6	63.8	16.5	7.4	-380.3	-98.1	
Copper	682	601.8	3 576.9	2 975.1	494.4	704.7	102.9	17.1	4 188.5	3 586.7	596.0	
Lead	685	0.4	5.7	5.3	1 348.7	0.5	0.1	21.2	6.9	6.5	1 656.3	
Nickel	683	0.4	0.5	0.1	24.6	0.5	0.0	9.8	0.6	0.2	36.8	
Tin	687	0.2	1.3	1.1	652.4	0.3	0.1	67.1	2.2	2.0	1 157.5	
Zinc	686	0.2	193.8	193.6	117330.8	0.1	0.0	-16.9	161.1	160.9	97506.1	
<b>Precious metals</b>		820.0	119.1	-701.0	-85.5	1 278.6	458.5	55.9	187.0	-633.0	-77.2	
Gold	971	811.0	109.0	-702.0	-86.6	1 263.3	452.3	55.8	169.8	-641.2	-79.1	
Silver	681	2.1	3.1	1.0	49.4	3.7	1.6	78.7	5.6	3.5	166.9	
Gold, silver ware, etc.	897	6.9	6.9	0.0	0.3	11.5	4.6	67.2	11.6	4.7	67.7	

Source: UNCTAD secretariat estimates, based on UN COMTRADE database, and UNCTAD *Commodity Price Bulletin*, various issues.

Note: Commodities included in UNCTAD's *Commodity Price Bulletin* do not always correspond with commodities included in the UN COMTRADE database at the SITC 3-digit level, Revision 2. The classification of commodities in commodity groups is also different in the two databases. The choices made in matching the two databases may have led to both overestimations and underestimations.

UNCTAD's *Commodity Price Bulletin* classifies plywood and sisal as agricultural raw materials, whereas the UN COMTRADE database classifies them as manufactures. Here they were classified as agricultural raw materials. But as plywood (SITC code 634) was classified as an agricultural raw material, other woods manufactures (SITC code 635) were classified as an agricultural raw material as well. Other manufactures characterized by their high content of raw materials according to SITC have also been included in the group of raw materials in this exercise.

At the time of this exercise, UNCTAD's *Commodity Price Bulletin* provided commodity price data for the first half of 2003, whereas the UN COMTRADE database provided sufficient trade data only up to 2001. If the price data of 2003 had been applied to the export volume of 2001, the forgone gain associated with price falls in the selected non-oil primary commodities would have been \$4.91 billion rather than \$1.17 billion.

<sup>a</sup> The values of the different aggregates are the sum of the value changes associated with the individual commodities included in the table.

<sup>b</sup> A minus sign means that there were export revenue gains rather than export revenue losses.

of goods and services of the LDCs as a group hardly increased during the 1980s — from \$15 per capita in 1979–1981 to \$16 per capita in 1989–1991. Indeed, real exports per capita were stagnant or declined in the 1980s for 25 of the 43 LDCs for which data are available (i.e. 58 per cent of cases). But in real per capita terms, the total exports of goods and services of the LDC group increased considerably during the 1990s. Between 1989–1991 and 1999–2001, they increased by about a third to \$21 per capita. Real exports per capita stagnated or declined in only 8 out of 44 countries in the 1990s (i.e. 18 per cent of cases). Moreover, there were 16 LDCs where real exports per capita more than doubled in that decade (table 30).

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*Had the LDCs' 1980 market shares remained constant, their export revenues in 2001 would have been 44 per cent higher. Most of these foregone earnings were concentrated in the non-oil commodity-exporting LDCs.*

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Within this more positive picture overall, non-oil commodity-exporting LDCs continue to give cause for concern. Of the six mineral exporters for which data were available for all periods, per capita exports in 1999–2001 were lower in real terms than in 1979–1981 in four countries, and in the other two mineral exporters real exports per capita were lower at the end of the 1990s than at the beginning of the decade. Some of the agricultural exporters had a much improved export performance in the 1990s. But amongst those exporters, real exports per capita at the end of the 1990s were either less than their level in 1979–1981 or about the same value in 6 out of 17 countries in spite of improved performance in the 1990s (table 30).

Another way to describe the export performance of the LDCs is in terms of their share in world exports of goods and services. In 2001, the LDC share in world exports of goods and services was 0.63 per cent. This was 31 per cent lower than their share in 1980. The decline in their share, a process which is often described as the marginalization of the LDCs in global trade, reflects the fact that LDC exports are growing more slowly than world exports.<sup>4</sup> The improved performance in the 1990s is apparent in the fact that from 1980 until 1994 there was a persistent tendency towards increasing marginalization of the LDCs in world trade. But since 1994 the decline in the LDC share in world exports has actually ceased.

Chart 17 shows the shares of different LDC sub-groups in world exports of goods and services between 1980 and 2001. It is apparent that the only sub-groups to reverse the process of marginalization are LDCs diversifying into manufactures exports and, in a less sustained way, services exporters. Since 1990 the share of manufactured goods exporters in world trade has increased from 16 per cent below its 1980 level in 1990 to 58 per cent above that level by the year 2001. The LDCs that export predominantly agricultural commodities also increased their share of world exports of goods and services briefly in the period 1992–1995, but this upward trend subsequently ceased. In 2001, their share of world exports of goods and services was just 56 per cent of its level in 1980. LDC mineral exporters have continued to have a very weak export performance. In 2001, their share in the world export of goods and services was just 16 per cent of what it had been in 1980 (chart 17).

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*Where export performance is weak, import capacity is impaired.*

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An idea of the economic magnitude of these changes can be gained by making an estimate of what exports of the LDC group as a whole would have been if it had not lost market shares in this way.<sup>5</sup> It can be estimated that export revenues in 2001 would have been \$68.5 billion rather than \$47.7 billion, that is 44 per cent higher. The difference of \$20.8 billion would have increased net ODA disbursements of 2001 by 153 per cent. Most of these foregone earnings were concentrated in the non-oil commodity-exporting LDCs.

Where export performance is weak, import capacity is impaired. Chart 18 shows the export and import trends between 1980 and 2002 in LDCs grouped by their export specialization. This reveals that apart from the oil exporters, all

TABLE 30. REAL EXPORTS OF GOODS AND SERVICES IN LDCs, BY COUNTRY,  
1979–1981, 1989–1991 AND 1991–2001  
(Annual average per capita, constant 1995 \$)

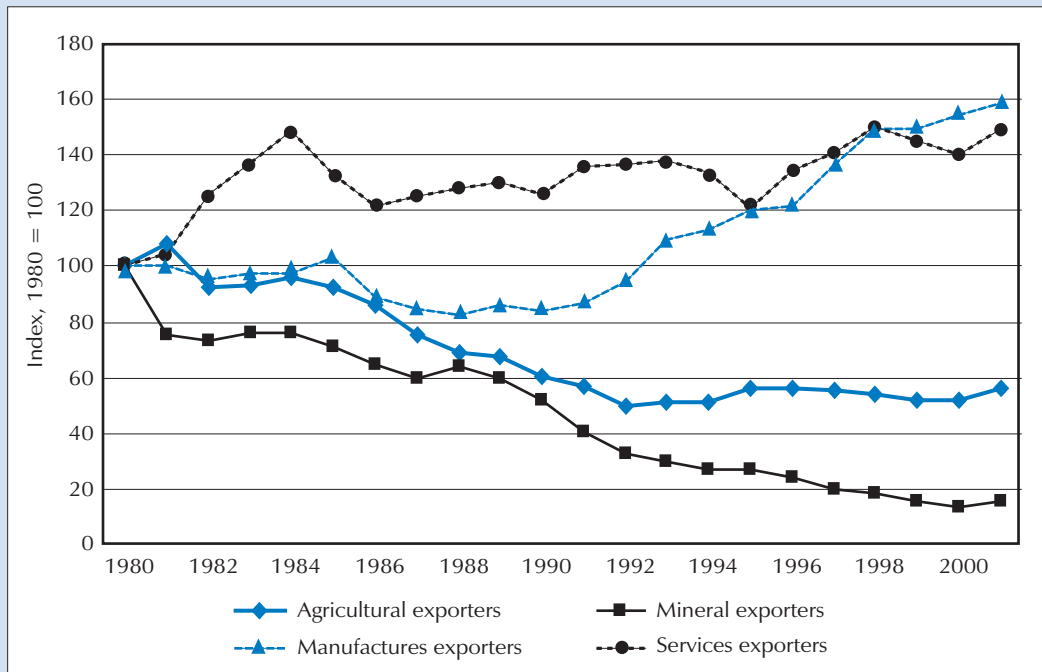
	1979–1981	1989–1991	1999–2001
<b>Exporters of primary commodities</b>			
<i>Agricultural exporters</i>			
Afghanistan	14.6	4.4	..
Benin	24.0	38.1	42.2
Bhutan	17.4	50.7	61.2
Burkina Faso	13.4	7.5	10.3
Burundi	5.3	5.7	12.8
Chad	7.4	15.2	10.2
Eritrea	..	..	7.9
Ethiopia	5.9	5.8	6.4
Guinea-Bissau	11.2	8.1	24.3
Kiribati	114.3	74.2	..
Malawi	17.3	14.9	17.3
Mali	11.3	14.3	29.2
Mauritania	77.1	77.1	68.7
Rwanda	10.7	10.5	7.0
Sao Tome and Principe	72.5	26.4	42.2
Solomon Islands	154.6	139.0	178.5
Somalia	9.1	..	..
Togo	40.3	31.8	34.4
Uganda	13.4	5.3	19.2
United Rep. of Tanzania	11.3	6.3	13.5
<i>Mineral exporters</i>			
Central African Republic	18.0	21.1	15.5
Dem. Rep. of the Congo	12.8	23.5	15.8
Guinea	31.8	44.7	37.2
Liberia	92.5	..	..
Niger	24.5	12.5	10.9
Sierra Leone	40.2	31.1	0.2
Zambia	99.9	64.7	75.0
<i>Oil exporters</i>			
Angola	74.4	124.1	181.6
Equatorial Guinea	35.5	48.9	891.7
Sudan	13.9	8.5	16.7
Yemen	31.1	23.1	69.3
<b>Exporters of manufactures and/ or services</b>			
<i>Manufactures exporters</i>			
Bangladesh	3.0	5.9	17.7
Cambodia	..	..	48.9
Haiti	16.6	8.6	21.5
Lao PDR	5.0	11.1	38.6
Lesotho	22.8	25.5	59.1
Madagascar	25.1	18.0	18.4
Myanmar	6.5	4.0	19.3
Nepal	6.1	7.7	19.8
<i>Services exporters</i>			
Cape Verde	15.4	37.2	103.7
Comoros	30.1	30.6	35.3
Djibouti	..	..	53.7
Gambia	47.9	40.4	42.7
Maldives	102.8	233.4	547.3
Samoa	62.5	112.6	198.9
Tuvalu	..	..	..
Vanuatu	264.9	217.0	309.5
<i>Mixed manufactures and services exporters</i>			
Mozambique	8.4	4.8	19.6
Senegal	64.2	58.2	69.3
<b>LDCs</b>	<b>15.2</b>	<b>15.8</b>	<b>21.1</b>

Source: UNCTAD secretariat estimates, based on UNCTAD, *Handbook of Statistics 2003*, for data on goods and services exports in current dollars; and World Bank, *World Development Indicators 2003*, CD-ROM, for deflators of goods and services exports.

Note: No export data were available for Afghanistan, Cambodia, Djibouti, Kiribati, Somalia and Uganda. The export data were deflated by deflators derived from World Bank data on goods and service exports (*World Development Indicators 2003*, CD-ROM). For all countries for which no deflator could be derived, regional deflators were applied. For the Lao People's Democratic Republic, Myanmar, Samoa and the Solomon Islands the deflator for the East Asian/ Pacific region was applied; for Bhutan and Nepal the deflator for the South Asian region was applied, and for Angola, Cape Verde, the Central African Republic, Equatorial Guinea, Guinea, Liberia, Maldives, Sao Tome and Principe, Sudan, the United Republic of Tanzania and Yemen the deflator for sub-Saharan Africa was applied. The deflator for sub-Saharan Africa was also applied to Yemen, although the World Bank classifies Yemen as a member of the Middle East/ North Africa region. But no deflator could be derived for this region. The deflator for least developed countries is the deflator that was derived for the low-income countries group.



CHART 17. TRENDS IN SHARE OF LDC SUB-GROUPS IN WORLD EXPORTS OF GOODS AND SERVICES, 1980–2001



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

Note: Calculations were based on 16 agricultural exporters, 6 mineral exporters, 5 manufactures exporters and 6 services exporters amongst LDCs for which data were available. For the classification of LDCs by export specialization, see Annex to chapter 1 of Part I.

the LDC groups have persistent high trade deficits. It is also clear that the trends in imports do not exactly follow trends in exports. But over the long term, it is the manufactures exporters, services exporters and oil exporters that have been able to increase their imports most significantly.

Between 1990 and 2002, the current value of the imports of non-oil commodity exporters rose by \$2.8 billion, whilst the current value of the imports of manufactures exporters rose by \$10 billion (see chart 18). In per capita terms, the contrast is even starker. Imports per capita fell by \$11.3 in the non-oil commodity exporters and rose by \$31 in the manufactures exporters between 1990 and 2002. Amongst the non-oil commodity exporters, there is also an important difference between the mineral exporters and the agricultural exporters. Between 1990 and 2002, the current value of the imports of mineral exporters fell by \$1.5 billion, whilst the current value of the imports of agricultural exporters increased by \$4.3 billion. But after a surge in 1993–1996, imports of agricultural exports did not increase much, and in per capita terms actually declined from \$72 in 1996 to \$65 in 2001.

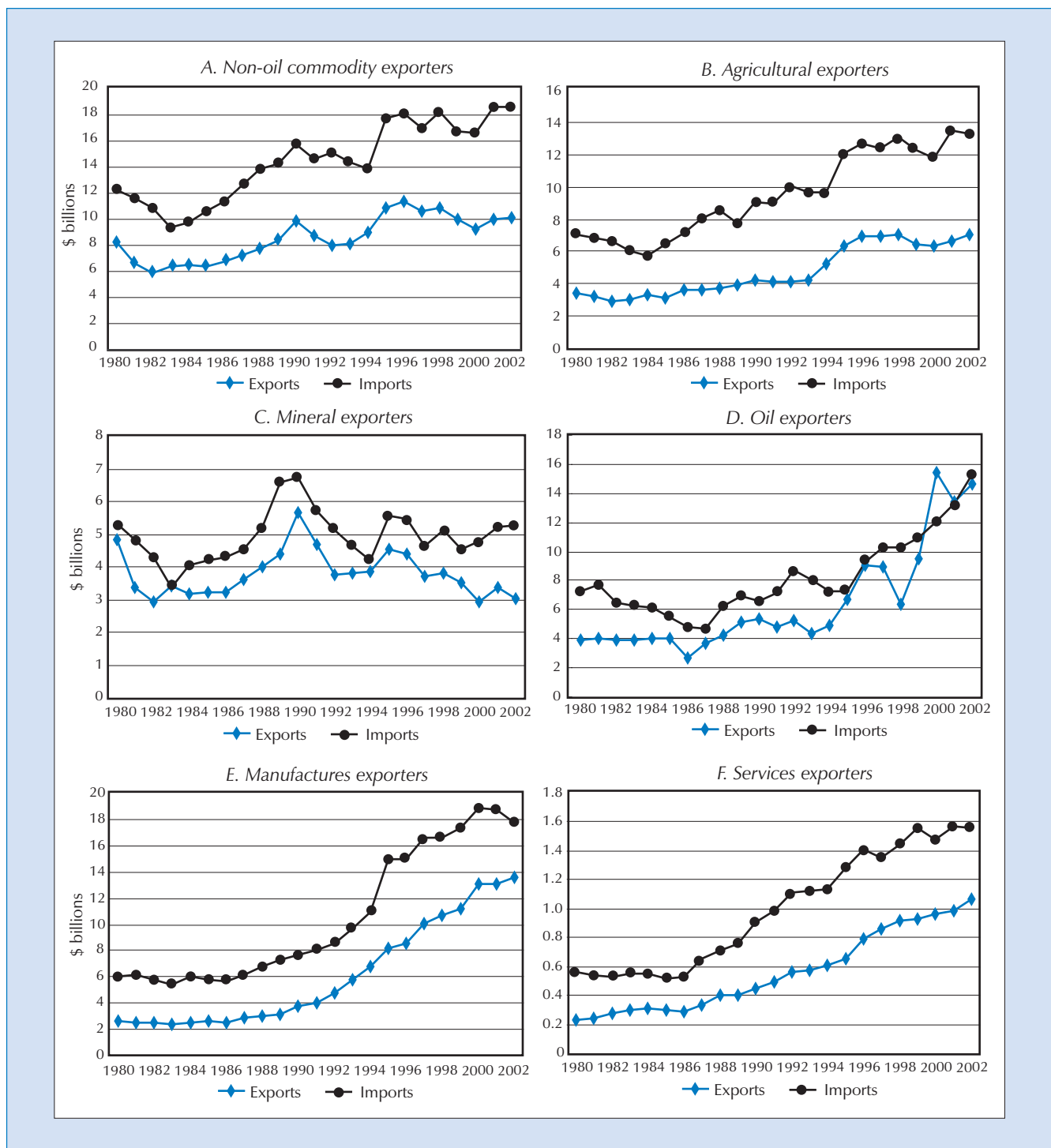
*It is very difficult to reduce poverty in an LDC if exports are not growing, or are growing very slowly, and if import capacity is severely constrained.*

### 3. THE INTERNATIONAL POVERTY TRAP

It is very difficult to reduce poverty in an LDC if exports are not growing, or are growing very slowly, and if import capacity is severely constrained. One may therefore expect the differences in trade performance amongst the LDCs to be associated with differences in the incidence of poverty. Indeed, there is a general association between dependence on primary commodities and the incidence of \$1/day poverty in the LDCs.

The evidence presented in *The Least Developed Countries Report 2002* showed that during 1997–1999, 69 per cent of the population of non-oil commodity-exporting LDCs was living on less than a dollar a day, and in

CHART 18. TRENDS IN EXPORTS AND IMPORTS OF GOODS AND SERVICES BY LDC SUB-GROUPS, 1980–2002

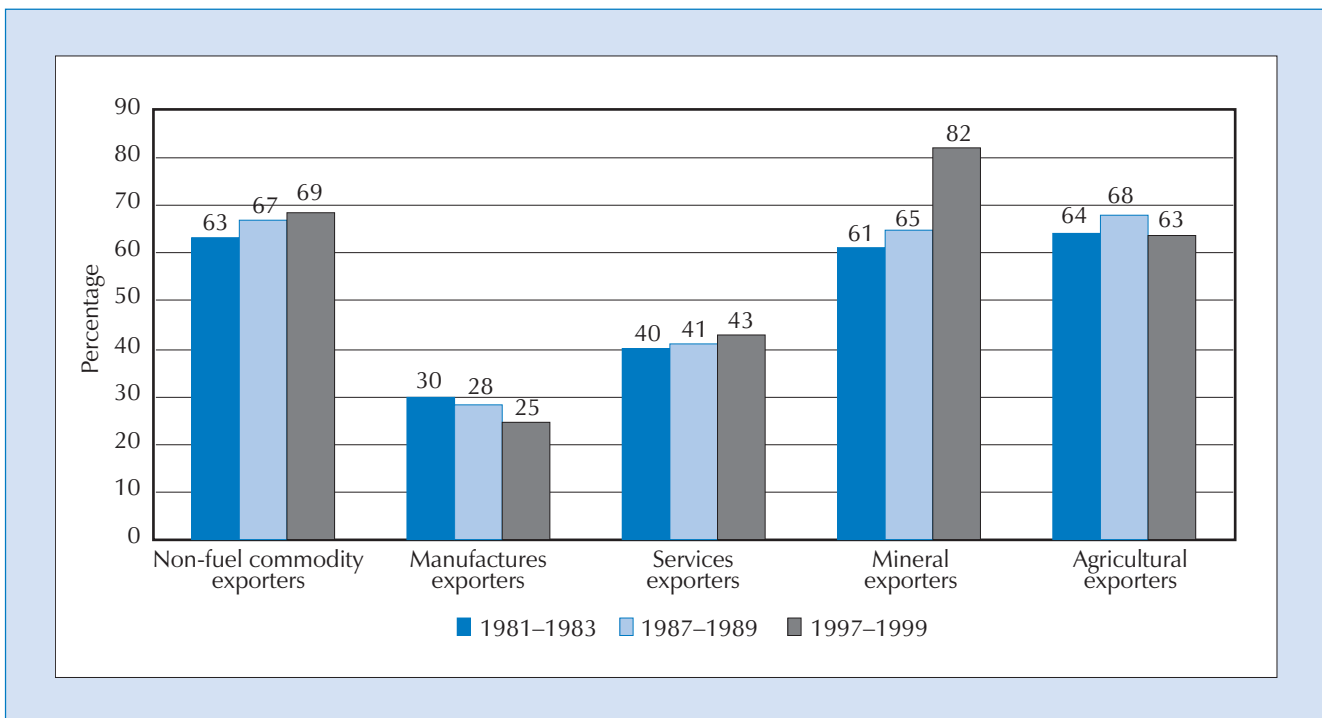


Source: UNCTAD secretariat estimates, based on UNCTAD data for merchandise and services trade.

Note: The calculations are based on 23 non-oil commodity exporters (16 agricultural exporters and 7 mineral exporters), 4 fuel exporters, 7 manufactures exporters and 6 services exporters amongst the LDCs for which data were available.

mineral-exporting LDCs the proportion was over 80 per cent (chart 19). The share of the population living on less than \$1/day was lower on average in service-exporting LDCs (43 per cent), whilst in LDCs that have managed to diversify into exporting manufactured goods the incidence of extreme poverty was even lower (25 per cent). There has also been a general tendency for the incidence of extreme poverty to be more persistent in the commodity-dependent LDCs. In the mineral exporters, the incidence of \$1/day poverty rose on average from 61 per cent to 82 per cent on average between 1981–1983 and 1997–1999 (chart 19). But there are variations within the sub-groups, particularly in the 1990s.

CHART 19. INCIDENCE OF EXTREME POVERTY IN LDC SUB-GROUPS, 1981–1983, 1987–1989 AND 1997–1999  
(Percentage of the population living on less than \$1/day)



Source: UNCTAD (2002: 124, chart 36A).

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*There has also been a general tendency for the incidence of extreme poverty to be higher and more persistent in the commodity-dependent LDCs.*

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The broad association between commodity dependence and the incidence of extreme poverty reflects the impact of export structure on trade performance, and the difficulty that many commodity-dependent economies have had in starting and also sustaining economic growth. Although the situation has improved since the mid-1990s, when the whole record from the 1980s is viewed, it can be seen that many commodity-dependent LDCs have been characterized by economic stagnation or economic regression, or short growth spurts followed by an economic collapse of some sort, which may have been triggered by a natural disaster, a legitimacy crisis leading to civil conflict in extreme cases, or some kind of external shock.

This outcome reflects the fact that many commodity-dependent LDCs are caught in an international poverty trap. As argued in the last chapter, all very poor countries experience a number of interlocking domestic vicious circles that serve to perpetuate a cycle of economic stagnation and mass poverty. Integration with the world economy through trade, investment, technology imports, financial flows and movements of people and ideas can greatly help countries to break out of these vicious circles. But the form of integration must be favourable for this to happen. In the commodity-dependent LDCs, the form of integration is not favourable. Indeed, external trade and financial relations are reinforcing, rather than serving to break, the domestic vicious circles that perpetuate poverty. It is in this sense that the poverty trap can be described as international.

A weak trade performance is an essential ingredient of the international poverty trap. But primary commodity dependence is related to poverty not only through trade, but also through the way in which weak trade performance is related to external indebtedness, and how external indebtedness in turn is related to access to external private capital and aid effectiveness. Associated with slow export growth, and also with large external shocks due to commodity price instability, there has been a build-up of unsustainable external debt in the

non-oil commodity exporters. During 1998–2000, before the enhanced HIPC Initiative started to deliver more substantial debt relief, all the primary-commodity-exporting LDCs except Bhutan, Eritrea, Uganda and the Solomon Islands had an external debt burden which according to the international norms of the Initiative was unsustainable.<sup>6</sup> As debts – which are mainly owed to official creditors – have built up, aid disbursements have increasingly been allocated, either implicitly or explicitly, to ensure that official debts are serviced. In this aid/debt service system, the developmental impact of aid has been undermined as the “debt-tail” has been wagging the “aid-dog”. But indebtedness has also served as one factor reducing the attractiveness of LDCs to foreign private investors and lenders, thus increasing dependence on official capital inflows.

Poverty reduction in these circumstances requires a concerted effort to escape this international poverty trap (see *The Least Developed Countries Report 2002*). An improved trade performance, as well as increased import capacity, is certainly going to be a necessary condition. But it remains to be seen whether export expansion alone will be sufficient in itself.

## C. The frequency of export expansion with poverty reduction

### 1. THE OVERALL PATTERN IN THE 1990s

Although it is very difficult to reduce poverty in an LDC if exports are not growing and import capacity is severely constrained, this does not mean that the contrary is true — namely, that export growth will reduce poverty. The improved export performance of many LDCs from the late 1980s and in the 1990s provides evidence of whether it actually does. This section examines the frequency with which export expansion in the LDCs has been associated with poverty reduction.

The discussion is based on the charts in the annex to this chapter. These show trends in average private consumption per capita (in 1985 PPP \$) and real exports over the past two decades in all LDCs for which data were available. On the basis of the poverty curves in the previous chapter, the trend in average private consumption per capita will be used as a proxy measure of the direction of change in the incidence of \$1/day and \$2/day poverty (see box 8). This approach does not provide precise quantitative estimates of the incidence and depth of poverty, nor of the number of poor. However, given the close association between average private consumption per capita and the incidence of \$1/day and \$2/day poverty in countries at the level of development of the LDCs, it enables identification of countries and periods in which export expansion is likely to be associated with a reduction of poverty, with a stagnation of poverty levels, and with a raise of poverty levels. If increases in average private consumption per capita are substantial and sustained over time, it is most likely that the incidence of \$1/day and \$2/day poverty is decreasing. If average private consumption changes little, it is most likely that the incidence of poverty is not decreasing. If average private consumption per capita is decreasing, it is likely that the incidence of poverty is increasing.

The charts in the annex show that in 19 out of the 32 LDCs for which a sufficiently long data series is available, average private consumption per capita was lower in 2000 than in 1980. This is an indication of the long-term growth

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*Primary commodity dependence is related to poverty not only through trade, but also through the way in which weak trade performance is related to external indebtedness, and how external indebtedness in turn is related to access to external private capital and aid effectiveness.*

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**BOX 8. TRENDS IN AVERAGE PRIVATE CONSUMPTION PER CAPITA AS A PROXY MEASURE FOR TRENDS IN POVERTY**

This chapter and the next two use trends in private consumption per capita (in constant 1985 PPP dollars) as a proxy measure for trends in poverty. This approach is possible in studying poverty trends in an LDC context as there is a close statistical relationship between average private consumption per capita and the incidence of \$1/day and \$2/day poverty in African and Asian countries with private consumption of less than \$2,400 a year (in 1985 PPP dollars) — see previous chapter. Given this relationship, it is possible to use data on average private consumption per capita to analyse general long-term poverty trends but without entering into the statistical controversies about the precise level of poverty in any particular country. With this approach, it has also been possible to make use of the most complete and up-to-date estimates of private consumption in the LDCs from the Penn World Table version 6.1, which were published during the preparation of this Report.

Any proxy measure contains less information than the object which it measures. Because the relationship between average private consumption per capita and poverty is not a straight line (see previous chapter, chart 9), an increase in private consumption per capita can be associated with a greater or lesser fall in the incidence of poverty in different LDCs. This is not captured by the proxy measure.

Also, the statistical relationship between average private consumption per capita and the incidence of poverty is a long-term empirical regularity that is based on a sample of LDCs and other lower-income countries with data from different years. It indicates the typical pattern of the relationship that one would expect to obtain if a country sustained growth in private consumption per capita. But in the short term, it is possible that the precise trend in poverty diverges from the long-term pattern. Such divergences in the short term from the long-term relationship can be observed. In some cases, they indicate that the inequality in consumption expenditure is increasing faster than would be expected if a country followed exactly the long-term trend. However, although this slows down the decrease in the incidence of poverty associated with increasing private consumption, in all the LDCs for which there are survey data and for which trends can be estimated, increasing private consumption per capita was associated with a decreasing incidence of poverty, and vice versa.

A stronger objection to using average private consumption per capita as a proxy measure of poverty is that it contains measurement errors and that it also contains items other than household consumption — notably, consumption by non-profit institutions (Deaton, 2004: 36). Large measurement errors are however contained in household survey means, and the survey averages also exclude items such as imputed rents to homeowners, which are included in national accounts estimates. The reader should be aware of this difference. However, as noted earlier (box 6), this Report is based on the view that national-accounts-consistent poverty estimates are as plausible as household-survey-based estimates, and that private consumption data from national accounts have a role to play.

In the end, analysis of trends in development, trade and poverty in the LDCs is always based on imperfect statistics. The task is to make the best of what is available in order to identify and explain emerging patterns. This is what we seek to do here.

failure discussed in the last section. But in contrast, in almost all the LDCs for which a sufficiently long data series is available — 23 out of 25 countries — exports of goods and services were higher in 2001 than in 1980. Although export instability makes the patterns somewhat complex, there was a more or less dramatic “export take-off” in many of the countries during the past two decades. The dates of export take-off, which are apparent in either an acceleration of export growth or a reversal of export decline, may be roughly identified on the basis of the annex charts:

- Acceleration of a growth in exports — e.g. Bangladesh: 1985 and 1994; Benin: 1996; Burundi: 1996; Cape Verde: 1992; Equatorial Guinea: 1993; Guinea: 1994; Guinea-Bissau: 1993 and 1998; Lesotho: 1990; Madagascar: 1998; Malawi: 1995; Mali: 1988 and 1996; Mauritania: 1997; Mozambique: 1990; Myanmar: 1987 and 1995; Senegal: 1994; Sudan: 1998; Uganda: 1993; Zambia: 1995
- Reversal of a decline in exports — e.g. Benin: 1990; Comoros: 1998; Democratic Republic of the Congo: 1994; Ethiopia: 1992; Madagascar: 1988; Mauritania: 1993; Niger: 1994; Rwanda: 1994; Sao Tome and Principe: 1996; Zambia: 1990.

The cause of the export take-off varies from country to country. In some countries, it is associated with the development of new manufactures or services exports, or the exploitation of mineral or oil resources. In others, it reflects policy reform. However, what is interesting in this context is the frequency with which export expansion is associated with rising average private consumption per capita. The charts show that there is a repeated pattern in which there is a sharp rise in exports that is associated with little change in private consumption per capita or even a decline. These are situations which will be described here as situations of “export expansion without poverty reduction”, or, where average private consumption per capita declines substantially, as situations of “immiserizing trade”.

Table 31 summarizes the frequency of these different situations in the LDCs for which data are available in the periods 1990–1995 and/or 1995–2000. The observations (one country for each period) are classified into six groups according to whether exports grew or declined over the period and whether private consumption per capita grew by more than 1 per cent per annum, declined by more than 1 per cent per annum, or either grew or declined sluggishly (between +1.0 per cent per annum and –1.0 per cent per annum). From table 31 a number of tendencies are clear:

- Only 15 out of the 66 cases have negative export growth rates.
- Average private consumption per capita is growing by more than 1 per cent per annum in only one out of the 15 cases which have negative export growth rates.
- But out of the 51 cases with positive export growth rates, average private consumption per capita is also growing by more than 1 per cent per annum in 22.
- Out of the 51 cases with positive export growth rates, average private consumption growth per capita is falling by more than 1 per cent per annum in 18.

These findings suggest that positive export growth rates are a necessary condition for poverty reduction. But export expansion is no guarantee of poverty reduction. Indeed, situations of export expansion with poverty reduction are less frequent in the LDC context than in situations of export expansion without poverty reduction and situations of immiserizing trade. One third of the cases in the 1990s are situations of immiserizing trade.

A positive aspect of the pattern of change is that there are more cases in which export growth is associated with rising average private consumption per capita in the period 1995–2000 than in the period 1990–1995 (chart 20). Moreover, if one simply divides the countries into those in which average private consumption per capita is rising and those in which it is falling, export expansion is occurring along with rising private consumption per capita in 59 per cent of cases (30 out of 51). However, as chart 20 shows, there is no statistically significant relationship between export growth and growth in average private consumption per capita in either the first half or the second half of the 1990s. Moreover, the evidence of the last chapter indicates that reducing the incidence of \$1/day poverty in the LDCs requires sustained and substantial increases in average private consumption per capita. Amongst the 51 cases with positive export growth rates, there are only three countries — Bangladesh, Guinea and Uganda — in which average private consumption growth rates exceeded 1 per cent per annum in both 1990–1995 and 1995–2000.

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*There is a repeated pattern in which a sharp rise in exports is associated with little change in private consumption per capita or even a decline.*

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TABLE 31. CLASSIFICATION OF LDCs ON THE BASIS OF THEIR REAL GROWTH RATES OF PRIVATE CONSUMPTION PER CAPITA AND OF EXPORTS OF GOODS AND SERVICES, 1990–1995 AND 1995–2000

		Real growth rate of private consumption per capita per annum (1985 PPP \$)						
		Over 1%		Between -1% and 1%		Lower than -1%		
Real growth rate of exports of goods and services per annum (%)	Positive	Bangladesh	1990–1995	Benin	1990–1995	Angola	1990–1994	
		Eritrea <sup>a</sup>	1992–1995	<i>Cape Verde</i>	1990–1995	Burundi	1990–1995	
		Ethiopia	1990–1995	Malawi	1990–1995	Chad	1990–1995	
		Guinea	1990–1995	<i>Utd. Rep. of Tanzania</i>	1990–1995	Comoros	1990–1995	
		Guinea–Bissau	1990–1995	Burkina Faso	1995–2000	Equatorial Guinea	1990–1995	
		Mauritania	1990–1995	<i>Cambodia</i> <sup>a</sup>	1995–2000	Lesotho	1990–1995	
		Myanmar <sup>a</sup>	1990–1995	Ethiopia	1995–2000	Madagascar	1990–1995	
		Uganda	1990–1995	Mali	1995–2000	Mali	1990–1995	
		Yemen <sup>a</sup>	1990–1995	Myanmar <sup>a</sup>	1995–2000	Mozambique	1990–1995	
		Zambia	1990–1995	Niger	1995–1999	Vanuatu <sup>a</sup>	1990–1995	
		Bangladesh	1995–2000	Zambia	1995–2000	Burundi	1995–2000	
		Benin	1995–2000			Dem. Rep. of the Congo	1995–2000	
		Cape Verde	1995–2000			Guinea-Bissau	1995–2000	
		Equatorial Guinea	1995–2000			Lesotho	1995–2000	
	Gambia	1995–2000			Maldives <sup>a</sup>	1995–2000		
	Guinea	1995–2000			Sao Tome and Principe	1995–2000		
	Madagascar	1995–2000			United Rep. of Tanzania	1995–2000		
	Malawi	1995–2000			Yemen <sup>a</sup>	1995–2000		
	Mozambique	1995–2000						
	Rwanda	1995–2000						
	Senegal	1995–2000						
	Uganda	1995–2000						
		Negative	Togo	1995–2000	Burkina Faso	1990–1995	Dem. Rep. of the Congo	1990–1995
					Gambia	1990–1995	Niger	1990–1995
					Mauritania	1995–2000	Rwanda	1990–1995
							Sao Tome and Principe	1990–1995
						Senegal	1990–1995	
						Sierra Leone	1990–1995	
					Togo	1990–1995		
					Chad	1995–2000		
					Comoros	1995–2000		
					Eritrea <sup>a</sup>	1995–2000		
					Sierra Leone	1995–2000		

Source: UNCTAD secretariat classification based on World Bank, *World Development Indicators 2003*, CD-ROM; and Heston, Summers and Aten (2002).

Note: Countries highlighted in *italics* are those which display sluggish but negative private consumption per capita growth rates.

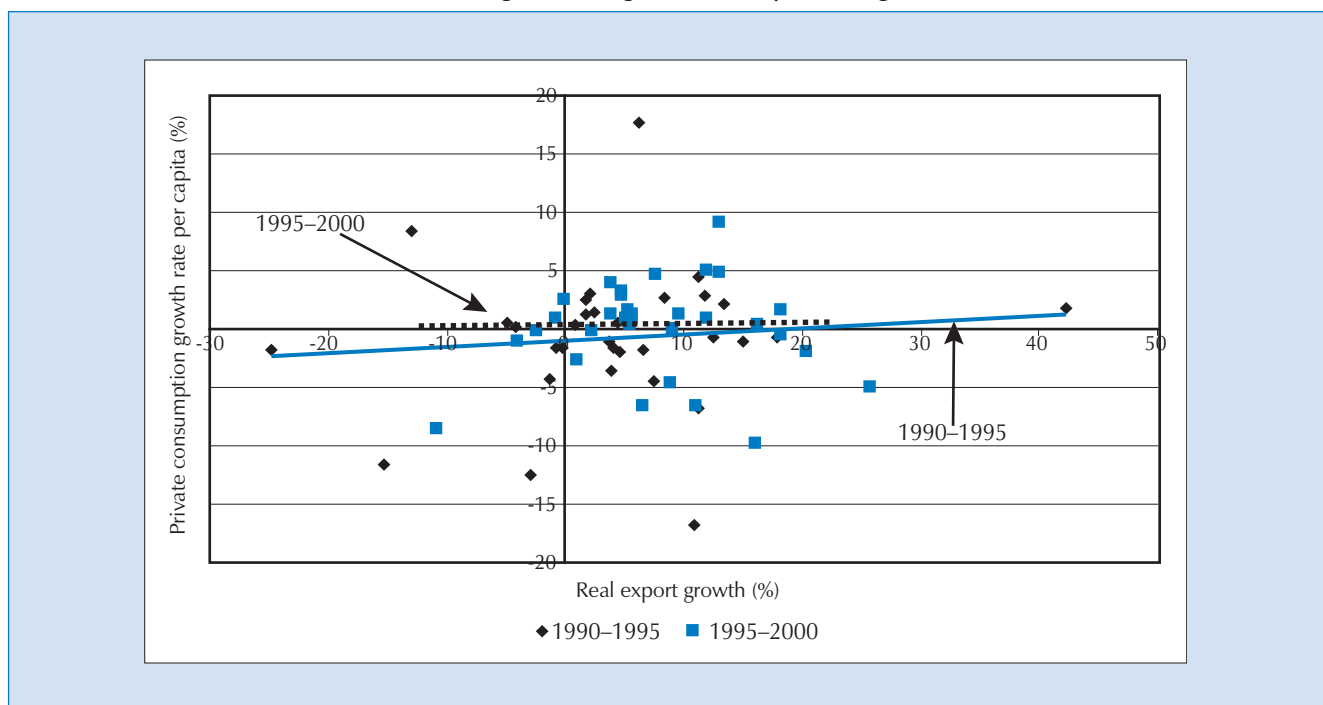
a Owing to lack of data, the real growth rate of private consumption per capita was calculated using data in constant local currency units.

## 2. THE UBIQUITY OF EXPORT EXPANSION WITHOUT POVERTY REDUCTION

*Poverty has been increasing in many of the mineral exporters because of a weak trade performance.*

Export expansion without poverty reduction and immiserizing trade are found in a wide range of countries regardless of their export structure. One may expect these phenomena to occur in both oil and mineral exporters owing to the possibility of an enclave-based pattern of export expansion and economic growth. In reality, however, poverty has been increasing in many of the mineral exporters because of a weak trade performance. But real export growth rates of over 5 per cent per annum in Niger and Zambia in the period 1995–2000 are associated with very slow increases in average private consumption per capita — less than 1 per cent per annum in each case — and the Democratic Republic of the Congo is a case of immiserizing trade in the same period. Export growth of 11.1 per cent per annum is associated with falling average private consumption per capita of 6.6 per cent per annum. Amongst the oil exporters, Angola and Equatorial Guinea in the first half of the 1990s, and Yemen in the second half of the 1990s, are cases of immiserizing trade. Both Yemen (1990–1995) and Equatorial Guinea (1995–2000) appear to be cases of export expansion with

CHART 20. THE RELATIONSHIP BETWEEN REAL EXPORT GROWTH AND GROWTH IN PRIVATE CONSUMPTION PER CAPITA (IN 1985 PPP \$) IN LDCs, 1990–2000  
(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 Pearson Product Moment Correlation coefficient between real export growth and growth in private consumption per capita was  $P = 0.1$  for the period 1990–1995 and  $P = 0.02$  for the period 1995–2000. In neither case is the relation statistically significant at the 10 per cent level. Equatorial Guinea and Sierra Leone were excluded from the sample because they were outliers. Export growth rate is based on constant 1995 \$.

poverty reduction. But in each case there was a massive increase in oil exports, and consumption growth lagged behind significantly. Guinea's experience seems to be the most favourable amongst the mineral exporters. However, evidence in chapter 5, section F, indicates that the growth of private consumption per capita has been because of a weak link between the capital intensive mining sector and the rest of the economy.

For LDCs exporting agricultural commodities, there is a mixed picture which reflects differences in export performance and also differences in the inclusiveness of the export growth process, which is related to the organization of production (plantations versus smallholders), access by farmers to production inputs (credit, land and labour), trends in productivity and prices, the bargaining power of farmers in relation to traders and processors, and the relationship between export crop expansion and food prices. Amongst the countries which experienced a dramatic surge in exports in the 1990s but very little improvement in the level of private consumption per capita are Ethiopia (1995–2000), Mali (1995–2000) and the United Republic of Tanzania (1990–1995). In those countries, export growth rates in the periods indicated were 9.2 per cent per annum, 11.9 per cent per annum and 17.8 per cent per annum respectively, but at the same time average private consumption per capita stagnated in Ethiopia, only grew by 0.9 per cent per annum in Mali and declined by 0.7 per cent per annum in the United Republic of Tanzania. Burundi is a case of immiserizing trade in both periods, and situations of immiserizing trade are also evident in Chad (1990–1995), Mali (1990–1995), Sao Tome and Principe (1995–2000), Guinea-Bissau (1995–2000) and the United Republic of Tanzania (1995–2000) (see box 9). In three of these cases — Mali, Guinea-Bissau, and

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*For LDCs exporting agricultural commodities, there is a mixed picture which reflects differences in export performance and also differences in the inclusiveness of the export growth process.*

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Sao Tome and Principe — export growth rate in the period in question exceeded 5 per cent per annum. Uganda stands out as a positive case of export expansion with sustained poverty reduction. Malawi also had a situation of export growth with poverty reduction in 1995–2000, but the trend towards the end of that period was not so favourable (see annex charts).

*Uganda stands out as a positive case of export expansion with sustained poverty reduction.*

It might be expected that manufactures exporters and services exporters would have a more positive trade–poverty relationship than the other country groups. They have had a better export performance than other country groups and the channels through which export expansion feeds through to improved incomes and consumption are likely to be more straightforward than in the mineral and oil economies (where the institutions governing the distribution of rents are critical) and the agricultural economies (where the pass-through of the gains from trade to the farm-gate level may be precarious).

#### BOX 9. THE “MACRO-MICRO PARADOX” IN THE UNITED REPUBLIC OF TANZANIA

Tanzanian economists have described the situation in their country, in which there has been a combination of better macroeconomic performance in the 1990s, particularly from the mid-1990s onwards, but this has not been associated with poverty reduction, as an example of a “macro-micro paradox”. In examining possible missing links between macroeconomic growth and poverty reduction at the micro level, Wuyts (2003) highlights five important features of the relationship between trade, growth and poverty in the United Republic of Tanzania.

Firstly, although GDP growth averaged 3–6 per cent per annum between 1991 and 2001, population grew by 2.8 per cent per annum. The resulting average annual growth rate of GDP per capita was only 0.8 per cent per annum. Even with optimistic assumptions about the overall elasticity of poverty reduction with respect to GDP per capita, the resulting effect on poverty reduction would have been modest, given also the slight increase in income inequality over the period in question.

Secondly, the volume of exports increased by nearly 10 per cent per annum for exports of goods and services and by 7.8 per cent for exports of goods during 1987–2001. But adverse terms-of-trade shifts have meant that the purchasing power of exports has grown at a slower rate — 7.2 per cent per annum for goods and services and 4 per cent for goods only. In volume terms, imports of goods and services grew by only 2.4 per cent per annum over the period 1987–2001 and imports of goods increased by only 1.6 per cent per annum. In effect, the terms-of-trade shifts have reduced the pay-off to increased production efforts in terms of expansion of the capacity to import.

Thirdly, for the main cash crop exports, the volume of export growth has been relatively slow, averaging 3.6 per cent per annum over the period 1987–2001. Adverse terms-of-trade shifts mean that the purchasing power of the main cash crop exports actually declined by 1 per cent per annum during the period 1987–2001. This is immensely significant for poverty reduction. It is one key to understanding why there was no significant poverty reduction in rural areas over that period, despite strong export growth. The price index of cash crops in 2001 stood at just 54 per cent of its level in 1994. Falling export prices and falling output have eroded rural incomes.

Fourthly, the rapid export growth in the 1990s was accompanied by a major change in the composition of exports. The share of manufactures exports in total merchandise exports fell from 24 per cent in 1990 to 7 per cent in 2001. Over the same period, there was a shift in the relative importance of agriculture and minerals in merchandise exports. Between 1994 and 2001, the share of the former fell from 65 per cent to 28 per cent, whilst the share of the latter rose from about 17 per cent to 39 per cent. Since the mid-1990s, the share of services, especially tourism, in total exports of goods and services has risen from about 20 per cent to 43–48 per cent of total export earnings.

Fifthly, although mining and tourism have emerged as the new engines of growth in the Tanzanian economy, cash crop production is still a much more important source in people’s livelihoods than either mining or tourism. As a consequence, the employment and income effects emanating from the growth sectors are likely not to have been sufficient to offset the depressing effect of falling international agricultural prices on rural incomes.

Wuyts concludes that “successful poverty reduction must come to terms with the question how a country like Tanzania can realistically build upon and dynamically change its comparative advantage in ways that promote productivity and higher standards of living rather than exacting increased efforts for shaky returns.” (Wuyts, 2003: 28).

Source: Wuyts, 2003.

Amongst the services exporters, export expansion with poverty reduction is apparent in Cape Verde and the Gambia in the period 1995–2000. But Comoros (1990–1995), Vanuatu (1990–1995) and Maldives (1995–2000) are clear cases of immiserizing trade. Their exports grew by 7.7 per cent per annum, 3.7 per cent per annum and 8.9 per cent per annum respectively. But private consumption per capita declined by 4.5 per cent per annum, 1.1 per cent per annum and 4.6 per cent per annum respectively.

With regard to manufactures exporters, Bangladesh is doing well in terms of both export growth and rising private consumption per capita, but as in Uganda, the rate of growth of consumption lags behind export growth significantly. In Cambodia (1995–2000) export growth of 18.3 per cent per annum is associated with falling private consumption per capita of 0.6 per cent per annum. Lesotho appears to have had a situation of immiserizing trade in both periods — exports expanding by 11.2 per cent per annum and 6.6 per cent per annum in 1990–1995 and 1995–2000, and private consumption per capita falling by 6.8 per cent per annum and 6.5 per cent per annum over the same periods. Madagascar is an interesting case which diversified into manufactures exports in the 1990s. During the first half of the 1990s, it had a situation of immiserizing trade, but in the second half of the 1990s export expansion of 4 per cent per annum was associated with private consumption per capita rising by one per cent per annum.

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*With regard to manufactures exporters, Bangladesh is doing well in terms of both export growth and rising private consumption per capita, but as in Uganda, the rate of growth of consumption lags behind export growth significantly.*

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## D. The trade–growth relationship

The infrequency of export expansion with poverty reduction in the LDCs may have two causes. First, export growth may not be facilitating sustained economic growth at levels sufficient to lead to substantial poverty reduction. Second, economic growth may not be of an inclusive form that increases average household incomes and consumption. This section looks at the former issue.

### 1. EXPORTS AND ECONOMIC GROWTH

The relationship between export growth and output growth varies between countries and over time. Chart 21A shows the relationships between export growth and GDP growth in the LDCs and other developing countries in the 1990s. Generally, as one would expect given that exports are a component of GDP in national accounts, there is a positive association between the two variables — the higher the export growth rate, the higher the GDP growth rate. However, the relationship is slightly stronger in the other developing countries than in the LDCs in terms of the closeness of the association between the two variables. It is notable also that the additional GDP growth associated with additional export growth is similar for both the LDCs and the other developing countries. This is apparent in the similar slope of the two trend lines which depict the average relationship. However, at any level of export growth, a given export growth rate is associated with a slightly lower output growth rate in the LDCs than in the other developing countries.

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*At any level of export growth, a given export growth rate is associated with a slightly lower output growth rate in the LDCs than in the other developing countries.*

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This is quite significant because a necessary minimum condition for poverty reduction to occur is that the rate of economic growth is fast enough for GDP per capita to increase. Population growth rates tend to be higher in the LDCs, and in these circumstances it is possible that despite the positive relationship between export growth and output growth, export growth may not be

generating a sufficiently high output growth rate to ensure increasing GDP per capita.

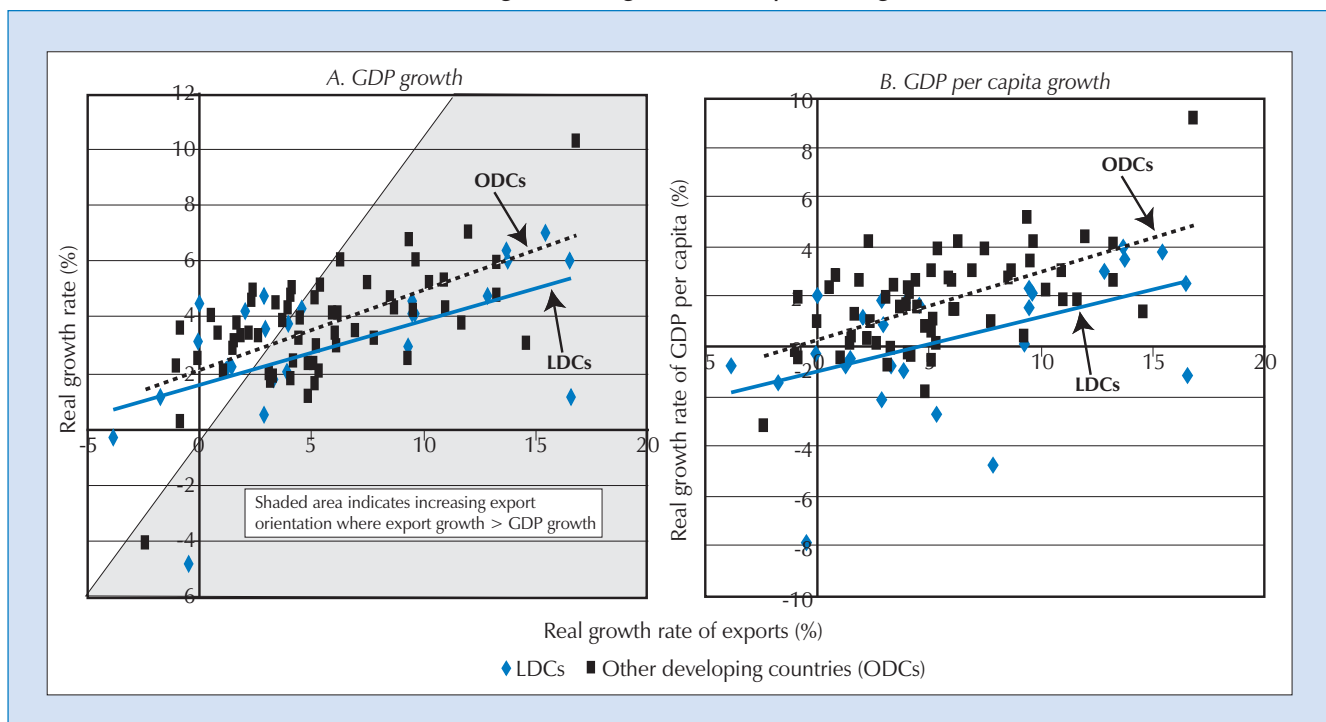
Amongst the LDCs, positive export growth is associated with declining GDP per capita in about a third of the countries.

Chart 21B shows the relationship between export growth and growth of GDP per capita in LDCs and other developing countries in the 1990s. Once again there is generally a positive relationship between the two variables – the higher the export growth rate, the higher the GDP per capita growth rate. Moreover, the relationship is again slightly stronger in the other developing countries than in the LDCs in terms of the association between the two variables and also in the additional GDP per capita growth associated with additional export growth. However, at any level of export growth, a given export growth rate is associated with lower growth of GDP per capita in the LDCs than in other developing countries. For the LDCs, the relationship between export growth and GDP per capita growth is actually such that for a positive export growth rate between 0 and 5 per cent per annum there is a greater probability that export growth will be associated with declining GDP per capita than with increasing GDP per capita.

It is clear that in almost all cases, whether LDCs or other developing countries, declining exports are associated with declining GDP per capita. But amongst the LDCs, positive export growth is associated with declining GDP per capita in about a third of the countries. This proportion is about three times higher than that of the group of other developing countries. This pattern reflects the fact that a higher proportion of the LDCs have real export growth rates of less than 5 per cent per annum. This is a “zone of ambiguity” where export growth may or may not be associated with output growth rates high enough to increase

CHART 21. THE RELATIONSHIP BETWEEN EXPORT GROWTH AND GDP GROWTH, AND EXPORT GROWTH AND GDP PER CAPITA GROWTH, IN LDCs AND OTHER DEVELOPING COUNTRIES, 1990–2000

(Average annual growth rate, percentage)



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

Notes: The Pearson Product Moment Correlation coefficient for the relationship between the real growth rate of exports and real GDP growth is  $P = 0.51^*$  for the LDCs and  $P = 0.62^*$  for the other developing countries.

The Pearson Product Moment Correlation coefficient for the relationship between the real growth rate of exports and real GDP per capita growth is  $P = 0.49^*$  for the LDCs and  $P = 0.59^*$  for the ODCs.

\* implies 1 per cent significance level.

GDP per capita. But there are also some LDCs with higher export growth rates in which GDP per capita has also been declining.

The relationship between exports and economic growth can also be analysed in terms of changes in the export orientation of the domestic economy (measured by the export/GDP ratio). Chart 21A indicates in which countries real exports were growing faster than real GDP and thus where export orientation was increasing. It is evident that the threshold of real export growth rate of 5 per cent per annum is also important in terms of increasing export orientation. Increasing export orientation was occurring in all the countries, whether least developed countries or other developing countries, with export growth rates above the threshold level. Below that level, there are some countries in which export growth is associated with increasing export orientation and others where it is associated with decreasing export orientation.

It is clear that the LDCs in which GDP per capita growth was fastest also experienced increasing export orientation of their domestic economies. But increasing export orientation was not always associated with increases in GDP per capita. This applies mainly to the LDCs in the “zone of ambiguity”, with a positive export growth rates of less than 5 per cent. But the combination of increasing export orientation and stagnant or falling GDP per capita is also apparent in a few other LDCs.

To sum up, there is some support for the proposition that the relationship between export growth and output growth is weaker in the LDCs than in other developing countries. Declining exports are associated with falling GDP per capita in both LDCs and other developing countries, but a higher proportion of the LDCs (almost a third) have positive export growth rates and declining GDP per capita. This reflects three factors. First, the population growth rates of the LDCs are higher. Second, at any given export growth rate, the output growth rate is generally lower in the LDCs than in the other developing countries. Third, a higher proportion of LDCs with positive export growth rates are in the “zone of ambiguity” where export growth rates are below 5 per cent per annum. For such LDCs, there is an equal probability that export growth will be associated with falling GDP per capita or rising GDP per capita.

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*A basic condition for export growth to translate into output growth is for export growth to be associated with increases in import capacity. But import growth rates lagged behind export growth rates in most LDCs in the 1990s.*

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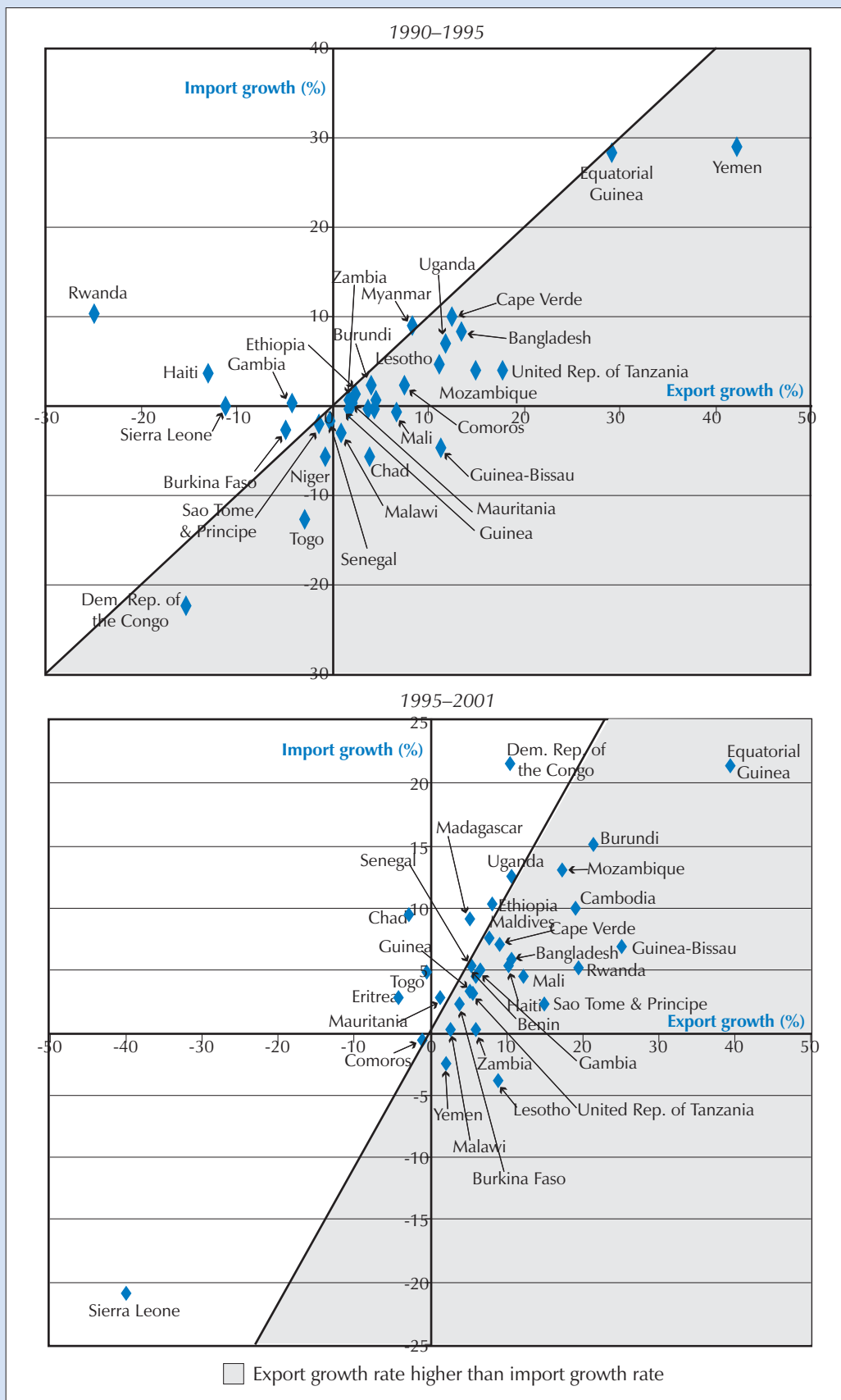
## 2. IMPORTS, INVESTMENT AND ECONOMIC GROWTH

In the previous chapter, it was argued that exports can have an important effect on economic growth in the LDCs through their import-supply effects, and that an important condition for such effects to translate into economic growth was the existence of a dynamic investment–export nexus. It is possible to identify some of the possible missing links in the relationship between exports and economic growth in the LDCs by examining the relationship between export growth and import growth, import growth and investment growth, and investment growth and output growth.

As a major positive impact of exports on growth occurs through their import-supply effects, a basic condition for export growth to translate into output growth is for export growth to be associated with increases in import capacity. The extent to which this has been occurring is evident in chart 22. This shows that import growth rates lagged behind export growth rates in most LDCs in the 1990s. Import growth rates (measured in constant terms) were lower than export growth rates in 24 out of 32 LDCs for which data are available for the period 1990–1995, and in 20 out of 32 LDCs for the period 1995–2001.

CHART 22. THE RELATIONSHIP BETWEEN EXPORT GROWTH AND IMPORT GROWTH IN LDCs, BY COUNTRY, 1990–1995 AND 1995–2001

(Real average annual growth rate, percentage)



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

Note: Calculations are based on data in constant local currency.

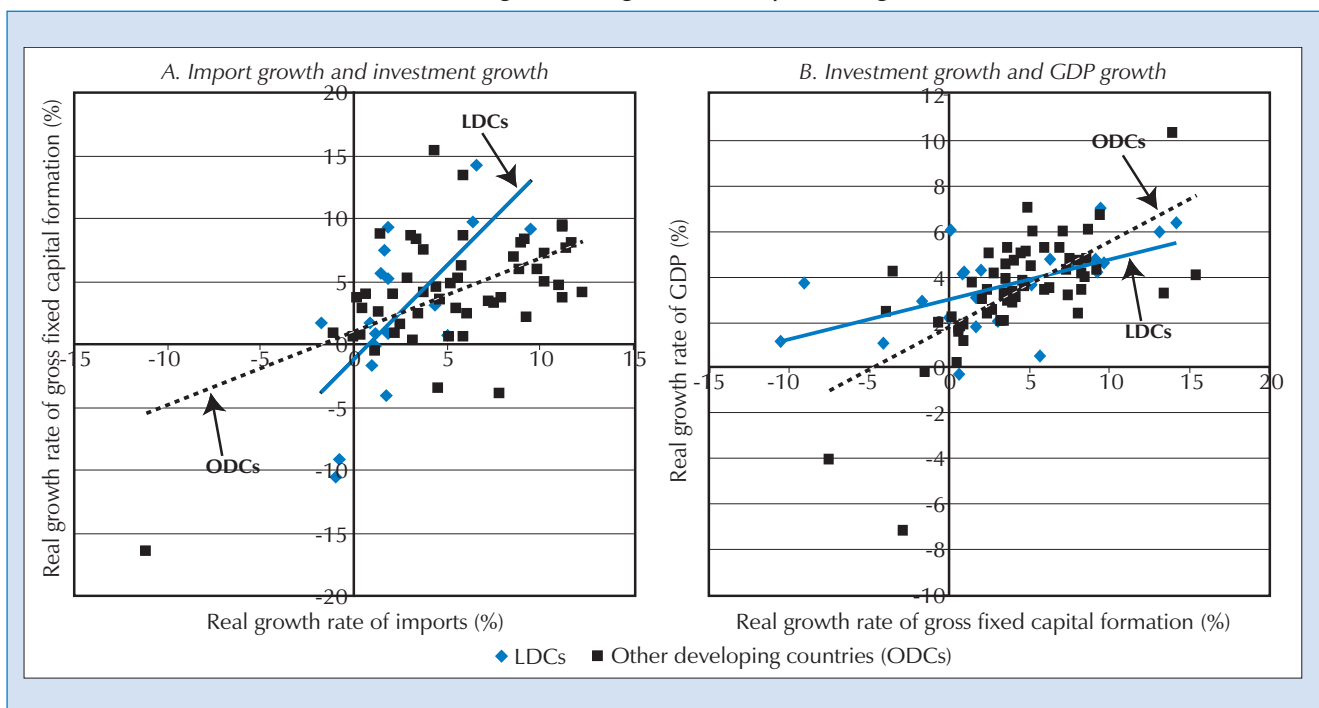
The precise reasons why improved export growth rates have not been fully reflected in improved import growth rates are unclear. But in some countries, such as Bangladesh, this may be due to declining aid inflows, which have fallen in tandem with rising exports. In other countries it may be related to falling aid coupled with changes in debt service obligations. The situation is complicated here because although the HIPC Initiative has reduced the contractual debt service obligations, many countries were previously accumulating debt repayment arrears to external creditors. Thus in a few cases, the “normalization” of debt service repayments has entailed a decrease in contractual debt service payments but an increase in actual debt service payments. Export growth will not translate into a concomitant increase in import capacity unless debt relief is additional to aid inflows.

*Additional import growth is associated with greater increases in investment in the LDCs than in other developing countries.*

Given the import sensitivity of LDC economies, import growth may be expected to be strongly associated with investment growth. Chart 23A depicts the relationship between these two variables in LDCs and in other developing countries in the 1990s. There is generally a positive relationship — increases in imports are associated with increases in investment. But the association between import growth and investment growth is closer in the LDCs than in the other developing countries. Moreover, additional import growth is associated with greater increases in investment in the LDCs than in other developing countries. Increases in import capacity can thus be expected to translate into increases in investment in LDCs.

However, whether this will lead to economic growth depends on further conditions. Chart 23B depicts the relationship between investment growth and economic growth in the LDCs and other developing countries in the 1990s. In

CHART 23. THE RELATIONSHIP BETWEEN IMPORT GROWTH, INVESTMENT GROWTH AND GDP GROWTH IN LDCs AND OTHER DEVELOPING COUNTRIES, 1990–2000  
(Average annual growth rate, percentage)



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

Notes: The Pearson Product Moment Correlation coefficient for the relationship between import growth rates and the real growth rate of gross fixed capital formation is  $P = 0.67^*$  for the LDCs and  $P = 0.54^*$  for the ODCs. The Pearson Product Moment Correlation coefficient for the relationship between the growth rate of gross fixed capital formation and real GDP growth is  $P = 0.57^*$  for LDCs and  $P = 0.66^*$  for ODCs. \* implies a 1 per cent significance level.

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*...But in contrast to the import–investment relationship, the association between investment growth and output growth is closer in the other developing countries than in the LDCs.*

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*The low efficiency of investment in the LDCs is related to a number of factors, including the low level of investment, the weakness of the domestic entrepreneurial class and the fact that central accumulation and budgetary mechanisms in the LDCs have been dominated by external sources of finance (mainly ODA).*

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general, there is a positive relationship — increases in investment are associated with output growth. But in contrast to the import–investment relationship, the association between investment growth and output growth is closer in the other developing countries than in the LDCs. Moreover, additional investment is associated with greater increases in output in the other developing countries than in the LDCs. Increases in investment may thus be expected to have less strong effects on growth in the LDCs than in other developing countries.

The relationship between investment growth and output growth is a key link in the causal chain through export growth can lead to rates of economic growth high enough to be able to reduce poverty. As analysed in *The Least Developed Countries Report 2000* (part 2, chapter 1), the low efficiency of investment in the LDCs is related to a number of factors, including the low level of investment, the weakness of the domestic entrepreneurial class and the fact that central accumulation and budgetary mechanisms in the LDCs have been dominated by external sources of finance (mainly ODA) rather than by domestic resources. During the period from 1990 to 2001, aid accounted for 50 per cent of total annual capital formation in the LDCs as a group, as compared with 5 per cent in low- and middle-income countries. The importance of aid for capital formation declined in the second half of the 1990s. But by 2001 the median contribution of aid was 62 per cent of total capital formation. In these circumstances, weaknesses in aid delivery, including major coordination problems, lack of national ownership and orientation to national priorities, instability and unpredictability, can all undermine the investment–growth relationship. It is for this reason that improvements in the aid relationship through the PRSP approach, which was initiated at the end of 1999, as well as a successful resolution of the official debt problem, are so important for improving the trade–poverty relationship in the LDCs.

## **E. Trade expansion, domestic resource mobilization and the form of economic growth**

Poverty reduction requires not simply sustained economic growth, but also an inclusive form of economic growth. This section considers three possible factors related to the form of economic growth that may be contributing to trade expansion without poverty reduction and to immiserizing trade. They are the following: the level of income inequality; the demand-side sources of economic growth; and the scale of domestic resource mobilization efforts.

### **1. LEVEL OF INEQUALITY**

One factor affecting the relationship between export growth and growth of private consumption per capita is the level of inequality in a country. One would expect that in high-inequality countries there may be an enclave pattern of growth whereby all the benefits of export expansion are concentrated in the hands of a minority.

Analysis of the impact of the level of inequality on the trade–poverty relationship is difficult because of data constraints. There are 18 LDCs for which there are estimates of income distribution in the 1990s. When these countries are divided into high-inequality, medium-inequality or low-inequality countries, according to whether they are in the top third, middle third or bottom third of developing countries ranked according to their Gini coefficients in the 1990s, it is apparent that there is some evidence that export expansion is less likely to

translate into poverty reduction in countries with a high level of inequality. Export growth in the high-inequality LDCs is almost the same as in the low-inequality and intermediate-inequality LDCs, but it is associated with slowly decreasing rather than slowly increasing average private consumption per capita (chart 24).

These patterns need much more research. There are some low-inequality LDCs, such as the United Republic of Tanzania, where export growth is not associated with growth in average private consumption per capita, and some high-inequality LDCs, such as Malawi, where it was so associated in the 1990s. What matters in these cases is not simply the initial level of inequality but also the way in which the level is changing over time with economic growth and export growth.

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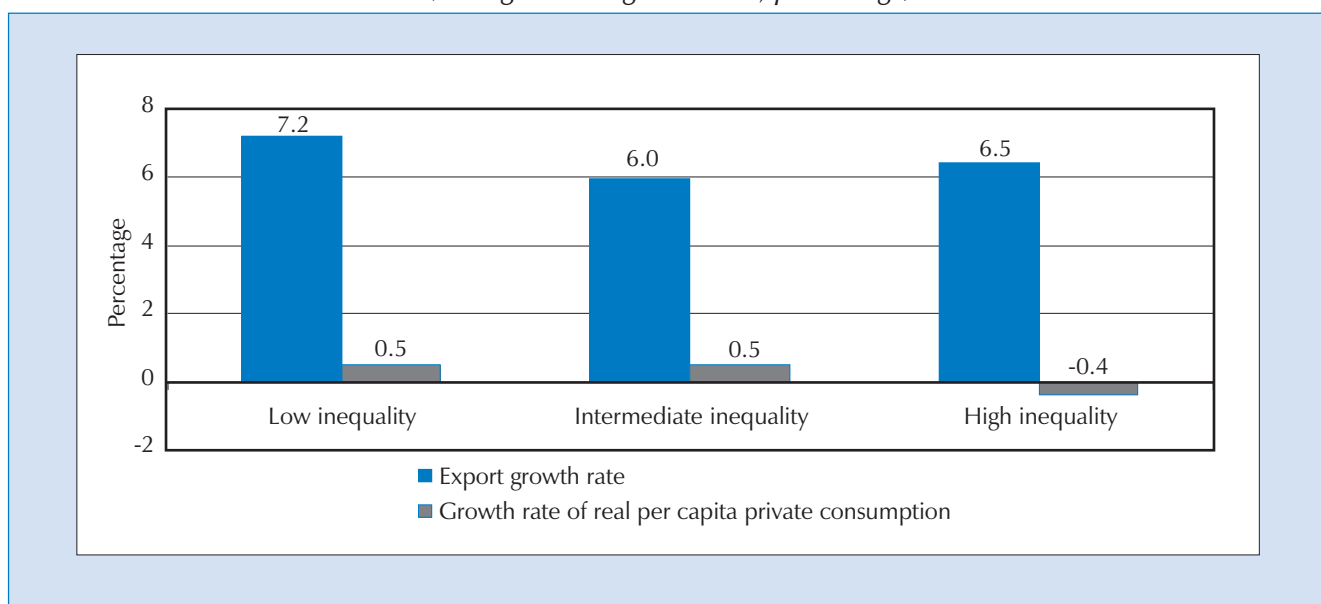
*Export expansion is less likely to translate into poverty reduction in countries with a high level of inequality.*

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## 2. BALANCE IN THE DEMAND-SIDE COMPONENTS OF ECONOMIC GROWTH

A second factor that might affect the trade-poverty relationship is the relative importance of different demand-side components of economic growth — domestic demand expansion, export expansion and import substitution. It can be hypothesized that there is a weaker relationship between export expansion and private consumption per capita growth in countries where export expansion predominates as the major demand-side component of economic growth than in countries where there is a more balanced form of economic growth in which export expansion, domestic demand and import substitution all contribute. This hypothesis follows from the fact that there is no logical necessity, from an accounting point of view, for average private consumption per capita to be growing if economic growth is predominantly achieved through export expansion. Domestic demand expansion can be based on increases in

CHART 24. REAL EXPORT GROWTH AND GROWTH OF PRIVATE CONSUMPTION PER CAPITA (IN 1985 PPP \$) IN 18 LDCS<sup>a</sup> CLASSIFIED BY LEVEL OF INEQUALITY<sup>b</sup>, 1990–2000  
(Average annual growth rate, percentage)



Source: UNCTAD secretariat estimates, based on World Bank, *World Development Indicators 2003*, CD-ROM; and UNDP (2003).

- a The 18 LDCs for which GINI index, real export (constant 1995 \$) and real private consumption (in 1985 PPP \$) data are available are: Bangladesh, Burkina Faso, Burundi, Ethiopia, Gambia, Guinea, Guinea-Bissau, Lesotho, Madagascar, Malawi, Mali, Mauritania, Mozambique, Rwanda, Senegal, Uganda, United Republic of Tanzania and Zambia. Sierra Leone was excluded as it was an outlier.
- b Low inequality refers to countries for which GINI indices are below 42; intermediate inequality refers to countries for which GINI indices are between 42 and 50; and high inequality refers to countries for which GINI indices are above 50.



investment, private consumption or public consumption. Depending on their relative contributions, average private consumption per capita is likely to be rising in countries where domestic demand expansion is making a significant contribution to overall output growth along with export expansion. Given the close relationship between trends in average private consumption per capita and trends in the incidence of poverty, it is likely therefore that in situations where domestic demand expansion is the most important demand-side component of economic growth the incidence of poverty will be falling.

Table 32 shows the results of a simple decomposition of the demand-side component of changes in GDP in the LDCs in the period 1990–1995 and 1995–2000. The basic method is derived from Chenery (1979) and is explained in Morley and Vos (2000). The decomposition has only been applied to countries and periods in which economic growth takes place. It indicates how much of the increase in GDP over each period can be attributed, in a simple accounting sense, to domestic demand expansion, import substitution and export expansion.<sup>7</sup>

TABLE 32. GDP GROWTH DECOMPOSITION ACCORDING TO CONTRIBUTION OF DOMESTIC DEMAND EXPANSION, IMPORT SUBSTITUTION AND EXPORT EXPANSION TO ECONOMIC GROWTH IN SELECTED LDCs, 1990–1995 AND 1995–2000

	GDP change <sup>a</sup>		Domestic demand (DD) contribution		Import substitution (IS) contribution		Export expansion (EE) contribution		Country classification by type of real GDP growth	
	<i>(Constant 1995 \$, millions)</i>		<i>(As percentage of real GDP change)</i>		<i>(As percentage of real GDP change)</i>		<i>(As percentage of real GDP change)</i>			
	1990–1995	1995–2000	1990–1995	1995–2000	1990–1995	1995–2000	1990–1995	1995–2000	1990–1995	1995–2000
Bangladesh	7 335.2	10 966.3	89.8	80.5	-12.7	1.1	22.9	18.4	DD1	DD2
Benin	377.1	588.4	72.0	78.1	11.0	7.0	17.0	14.8	DD2	DD2
Burkina Faso	440.3	552.6	79.7	80.9	31.5	13.0	-11.3	6.2	DD2	DD2
Cambodia	-	718.5	-	27.8	-	-26.0	-	98.2	-	EE
Cape Verde	109.9	179.3	108.4	84.0	-33.4	-5.9	25.0	22.0	DD1	DD1
Chad	127.2	237.6	-43.9	77.0	109.3	39.7	34.7	-16.7	IS	DD2
Comoros	8.5	11.2	127.7	45.1	-147.9	78.4	120.2	-23.5	DD1	DD2
Eritrea	-	42.2	-	199.2	-	-80.2	-	-19.0	-	DD2
Ethiopia	645.0	1 584.9	99.7	99.0	3.6	-27.2	-3.3	28.2	DD2	DD1
Gambia	37.7	100.8	138.6	44.6	-8.6	30.0	-30.0	25.4	DD2	DD1
Guinea	616.8	797.0	66.3	70.9	21.6	7.4	12.2	21.7	DD2	DD1
Guinea-Bissau	36.7	-	21.6	-	59.8	-	18.5	-	IS	-
Madagascar	-	654.1	-	111.8	-	-36.5	-	24.7	-	DD1
Malawi	194.9	310.5	15.6	56.0	76.0	26.1	8.4	17.9	IS	DD2
Maldives	-	131.7	-	34.9	-	-22.8	-	87.9	-	EE
Mali	330.2	723.0	40.7	53.3	26.7	11.8	32.6	34.9	DD1	DD1
Mauritania	181.4	250.4	57.1	77.4	16.2	22.6	26.7	0.0	DD1	DD2
Mozambique	344.1	1 070.9	44.6	100.8	19.0	-22.4	36.4	21.6	DD1	DD1
Niger	67.8	-	-129.2	-	229.5	-	-0.3	-	IS	-
Rwanda	-	767.1	-	80.0	-	9.9	-	10.0	-	DD2
Samoa	-	43.8	-	206.8	-	-152.8	-	46.0	-	DD1
Sao Tome and Principe	3.6	5.0	17.0	-50.9	85.2	70.8	-2.1	80.1	IS	EE
Uganda	1 654.0	1 972.1	91.5	102.8	-6.5	-26.4	15.0	23.6	DD2	DD1
Utd. Rep. of Tanzania	447.3	1 163.4	35.9	62.6	-30.9	26.4	95.0	11.0	EE	DD2
Vanuatu	38.1	-	27.1	-	49.7	-	23.2	-	IS	-
Yemen	1 005.2	1 303.1	93.4	27.3	-133.2	59.6	139.8	13.1	EE	DD2
Zambia	-	500.1	-	6.4	-	58.0	-	35.6	-	IS

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

Note: A hyphen (-) indicates periods during which either the GDP change was negative or data were not available.

IS, EE and DD countries are countries in which import substitution, export expansion and domestic demand expansion, respectively, are the major demand-side components of economic growth. In DD1 countries, export expansion contributes to over 20 per cent of GDP change and domestic demand remains the major source of GDP change. DD2 countries are the remaining DD countries.

a Difference between end-year and starting-year.

It should be noted that this is a simple accounting procedure that identifies the relative contribution of each of the three components to changes in GDP over the respective periods. It does not imply any causal relations. Nor is it a description of policy. More research is required to get a more detailed view of what is happening through a breakdown at the sectoral level (for which this decomposition is usually applied) and also the identification of the multiplier effects of exports. It is also necessary to stress that the decomposition of demand-side components of economic growth is best complemented with a supply-side growth decomposition. But even though the method is simple, it reveals some interesting results.

First, for most LDCs expansion of domestic demand contributed the most to GDP growth during the 1990s. In the period 1995–2000, it was the major demand-side component of economic growth in 20 out of 24 LDCs for which data are available. For 14 out of the 24 LDCs the expansion of domestic demand contributed over 70 per cent to the total increase of GDP. This figure is in line with Chenery's estimates of the importance of domestic demand for countries in the early stages of development (see previous chapter). The magnitude of the importance of domestic demand implies that LDC Governments would be very unwise to ignore the need for a growing domestic market for economic growth.

Second, the contribution of import substitution to GDP growth in the LDCs declined in the 1990s. It was the major demand-side component of GDP increase in 1 out of 24 LDCs for which data are available during 1995–2000, as against 6 out of 20 countries in 1990–1995. But more striking is the fact that rather than import substitution, the opposite is occurring in many countries. With rising import-to-GDP ratios, a greater proportion of domestic consumption and investment is being met by imports rather than domestic production. The opposite of import substitution is occurring in 9 out of 24 LDCs. Moreover, in five LDCs — Ethiopia, Madagascar, Mozambique, Samoa and Uganda — the negative demand-side contribution of increasing import penetration was so great that it completely offset the positive demand-side contribution of export expansion as a component of economic growth.

Third, there is some evidence of increasing export orientation of the LDC economies during the 1990s. This is not apparent in the change in the countries in which export expansion was the major demand-side source of economic growth. This increased from two (United Republic of Tanzania and Yemen) in 1990–1995 to three in 1995–2000 (Cambodia, Maldives, and Sao Tome and Principe). But there were more countries in which the export expansion contribution to economic growth exceeded 20 per cent in the latter period than in the former period.

Is the trade–poverty relationship associated with patterns of economic growth differentiated according to their reliance on domestic demand expansion, export expansion and import substitution? The evidence suggests that it is. As chart 25 shows, the countries in which import substitution is the major demand-side component of economic growth have the lowest export growth rates, and private consumption per capita is also falling. The countries in which export expansion is the major demand-side component of economic growth have the highest export growth rates, but private consumption per capita is falling, and also at the highest rate of decline. On average the best trade–poverty relationship is found in LDCs where domestic demand expansion is the major demand-side component of economic growth. In those countries, exports are not growing as fast as in the countries in which export expansion is the major

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*For most LDCs expansion of domestic demand contributed the most to GDP growth during the 1990s.*

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*The most favourable trade–poverty relationship seems to be in countries in which expansion of domestic demand contributes most to economic growth and export expansion makes an important complementary contribution.*

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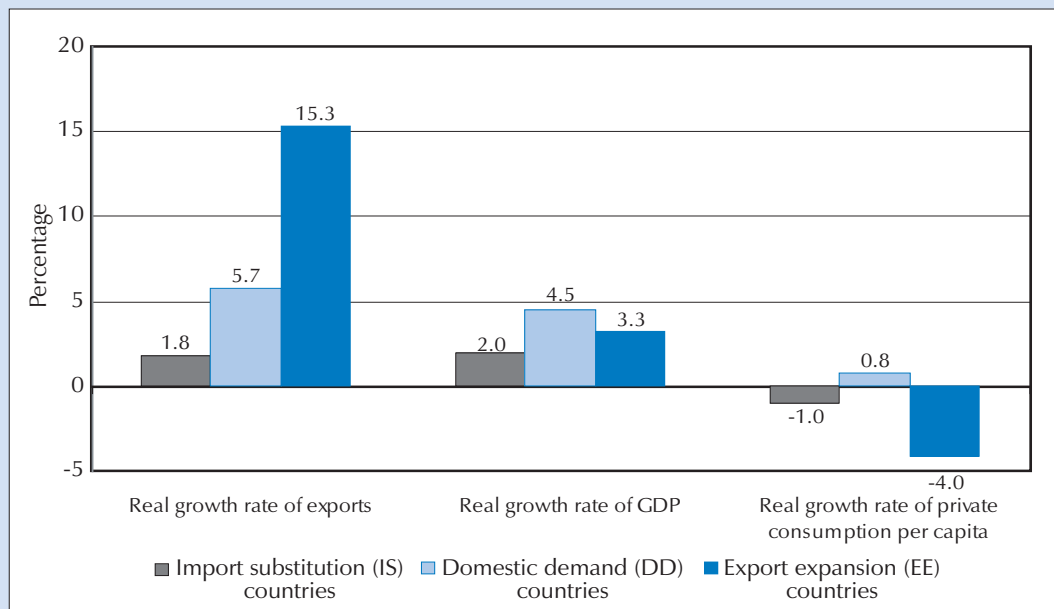
demand-side component of economic growth. But private consumption per capita is growing.

A closer look at the LDCs in which domestic demand is the major component of economic growth indicates diverse patterns. There is a tendency for private consumption per capita to be declining in countries in which domestic demand is the major component of economic growth, but exports are also declining. In the period 1995–2000 the most favourable trade–poverty relationship seems to be in countries in which expansion of domestic demand contributes most to economic growth and export expansion makes an important complementary contribution. It seems plausible to assume that the trade–poverty relationship is likely to be more favourable when the positive contribution of export growth is not strongly offset by the negative contribution arising because an increasing proportion of domestic consumption and investment is met from imports. But there is no clear evidence of this.

### 3. DOMESTIC RESOURCE MOBILIZATION EFFORT

A further factor affecting the trade–poverty relationship is the domestic resource mobilization effort associated with export expansion. The paucity of the available data makes this difficult to examine in terms of the conventional indicators of private and public domestic savings. But following the analysis in

CHART 25. REAL EXPORT GROWTH, REAL GDP GROWTH AND GROWTH IN REAL PRIVATE CONSUMPTION PER CAPITA (1985 PPP \$) IN LDCs, CLASSIFIED ACCORDING TO DEMAND-SIDE COMPONENTS OF GROWTH, 1990–1995 AND 1995–2000<sup>a</sup>  
(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: Export and GDP data are in constant 1995 \$. IS, EE and DD countries are countries in which import substitution, export expansion and domestic demand expansion respectively are the major demand-side contribution to GDP change.

<sup>a</sup> Based on total number of observations (one country in each period); see previous table.

*The Least Developed Countries Report 2000* (part 2, chapter 1), a useful indicator of effort in terms of domestic resource mobilization is the “domestic resources available for finance” (DRAF) as a share of GDP. This section discusses trends in this variable in relation to export expansion.

The amount of “domestic resources available for finance” is calculated as the difference between GDP and private consumption. As a matter of accounting identity, this is equivalent to domestic investment plus government expenditure plus the surplus (or minus the deficit) of exports over imports of goods and services. A rising DRAF-to-GDP ratio indicates an increasing domestic resource mobilization effort. The share of private consumption in GDP is falling and, assuming that the rise is not related to an export surplus (which is equivalent to investment abroad), more domestic resources are being devoted to finance full utilization and development of productive capacities and also government expenditures necessary for the maintenance of an efficient civil service, the enforcement of law and order and the maintenance of stable social relations within civil society, and essential expenditures on health, education, water and sanitation.

An important feature of the LDCs is that in most of them private consumption forms a major share of GDP, and the domestic resources available for financing the full utilization and development of productive capacities, as well as essential government expenditure, are very limited. Based on a sample of 29 LDCs for which data were available private consumption was 81 per cent of GDP during 1990–2000 as against 60 per cent of GDP in other developing countries.<sup>8</sup>

These patterns reflect the fact that in poor economies where a large part of the population survives at near-subsistence levels of consumption, the majority of the inhabitants have to devote most of their resources to maintaining minimal levels of consumption. There is little room for devoting resources to savings and investment. The low DRAF-to-GDP ratios do not reflect a profligate consumption orientation on the part of the population and an unwillingness to save and invest. Rather, they are the result of very low levels of average consumption per capita. In these circumstances, a rising DRAF-to-GDP ratio, indicating an increased domestic resource mobilization effort, may be difficult to achieve. If it occurs, it indicates significant “belt tightening” amongst the population. Moreover, if it occurs in situations where GDP per capita is not growing, average private consumption per capita must inevitably fall.

These relationships are important for understanding why export expansion without poverty reduction and immiserizing trade occur so frequently in the LDCs. Although the DRAF-to-GDP ratios in the LDCs are generally low, they have been increasing in recent years in quite a number of LDCs. These increases are often, though not invariably, related to export expansion.

In terms of achieving sustained economic growth, an increase in the DRAF-to-GDP ratio together with export expansion is positive. It is necessary to further decompose domestic resources available for finance to see exactly what is happening. But doing so is likely to indicate that investment growth is occurring along with export expansion. However, the problem for very poor countries is that “belt tightening” eats into average private consumption per capita. If the trade–growth relationship is weak and export expansion is not translating into growing GDP per capita, an increasing DRAF-to-GDP ratio can be achieved only at the expense of falling levels of private consumption per capita. Moreover, even if GDP per capita is increasing, the increasing DRAF-to-GDP ratio will slow down the rate of growth of private consumption per capita.

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*A further factor affecting the trade–poverty relationship is the domestic resource mobilization effort associated with export expansion.*

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*In terms of achieving sustained economic growth, an increase in domestic resource mobilization together with export expansion is positive. However, the problem for very poor countries is that "belt tightening" eats into average private consumption per capita.*

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*In almost two thirds of the cases in which export expansion is not likely to be associated with poverty reduction, the breakdown of the trade-poverty relationship is related to a domestic resource mobilization effort.*

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Table 33 shows trends in GDP per capita, exports, the DRAF-to-GDP ratio, investment and average private consumption per capita in the LDCs for which data are available for the periods 1990–1995 and 1995–2000. From this table it is apparent that there are two major ways in which the trade-poverty relationship is breaking down. First, export growth is not associated with rising GDP per capita. There are 23 cases where GDP per capita is declining and in 11 of them exports are increasing. In nine of the 11 cases average private consumption per capita is also declining. Second, export growth is associated with rising GDP per capita, but the "belt tightening" associated with domestic resource mobilization implies that average private consumption per capita is falling. There are in fact 34 cases in which GDP per capita is rising, and exports are increasing in 31 of them. But amongst these 31 cases, there are 9 in which private consumption per capita is falling. In 8 of these cases, there is a significant domestic resource mobilization effort in the sense that the DRAF-to-GDP ratio is increasing at more than 1.5 percentage points per annum and the share of private consumption per capita is falling concomitantly.

In the light of these findings, it is worthwhile to return to table 33, which identifies the frequency of situations of export expansion with poverty reduction, export expansion without poverty reduction and immiserizing trade. Once the domestic resource mobilization effort is related to this pattern, it is clear that a large number of the situations of export expansion without poverty reduction and immiserizing trade are related to a domestic resource mobilization effort. Of the 16 cases of immiserizing trade for which data on the DRAF-to-GDP ratio are available, there is evidence of a domestic resource mobilization in 10 of them, and it is strong, in the sense that the DRAF-to-GDP ratio is increasing by over 1.5 percentage points per annum in 8 of them. Of the 8 cases of export expansion without poverty reduction for which data on the DRAF-to-GDP ratio are available, there is evidence of a domestic resource mobilization effort in 5, and it is strong in 3 of them. Thus in almost two thirds of the cases in which export expansion is not likely to be associated with poverty reduction, the breakdown of the trade-poverty relationship is related to a domestic resource mobilization effort.

The coexistence of an increasing domestic resource mobilization effort and export expansion is, as noted earlier, potentially positive from the point of view of sustainable growth. If export expansion is occurring with a rising share of private consumption in GDP and a falling DRAF-to-GDP ratio, the export growth process may fizzle out. But equally in situations where the majority of the population are living at or near subsistence levels of consumption, if private consumption falls as a ratio of GDP this will create hardship. Indeed, such hardship may set a limit to the process of export expansion and also domestic resource mobilization. One example of this is the Gambia in the early 1980s, when a precipitous decline in the share of private consumption in GDP and a concomitant rise in the DRAF-to-GDP ratio were associated with rapid export expansion. But there was also falling private consumption per capita and the process stopped in 1984.

It is not impossible to have increasing exports, a falling share of private consumption in GDP and an increasing DRAF-to-GDP ratio, as well as rising average private consumption per capita, in very poor countries. But it is a matter of concern that out of the 19 cases of export expansion with poverty reduction for which data on the DRAF-to-GDP ratio are available, in only 4 is the domestic resource mobilization effort strong, in the sense that the DRAF-to-GDP ratio is increasing at more than 1.5 percentage points per annum. There were growing exports, increasing domestic resource mobilization (whether strong or weak)

TABLE 33. REAL AVERAGE ANNUAL GROWTH RATES OF EXPORTS, PRIVATE CONSUMPTION PER CAPITA<sup>a</sup>, GDP, GDP PER CAPITA AND CHANGE IN DRAF % GDP<sup>b</sup>, 1990–1995 AND 1995–2000

		Real average annual growth rates of:		Annual average change in DRAF/GDP ratio (% point)	Real average annual growth rates of:	
		Exports of goods and services (%)	Private consumption per capita (%)		GDP (%)	GDP per capita (%)
<b>Increasing exports and increasing private consumption per capita</b>						
Equatorial Guinea	1995–2000	46.9	29.0	2.7	36.6	32.9
Rwanda	1995–2000	18.3	1.7	1.9	9.8	3.5
Bangladesh	1990–1995	13.5	2.2	0.6	4.4	2.6
Mozambique	1995–2000	13.0	4.8	2.4	8.7	6.3
Uganda	1995–2000	12.0	5.0	-1.5	6.0	3.0
Mali	1995–2000	11.9	0.9	-0.4	5.6	3.1
Uganda	1990–1995	11.8	2.8	0.1	6.8	3.4
Guinea-Bissau	1990–1995	11.3	4.4	-1.9	2.9	0.2
Bangladesh	1995–2000	9.7	1.3	1.4	5.2	3.4
Ethiopia	1995–2000	9.2	0.0	2.0	4.3	1.7
Cape Verde	1995–2000	7.7	4.7	-3.2	6.6	3.9
Guinea	1995–2000	5.6	1.2	0.6	4.1	1.7
Burkina Faso	1995–2000	5.6	1.0	2.6	4.5	2.0
Benin	1995–2000	5.4	1.6	0.3	5.2	2.4
Zambia	1995–2000	5.2	0.9	0.3	2.2	-0.2
Senegal	1995–2000	4.8	2.9	0.0	5.4	2.5
Gambia	1995–2000	4.8	3.1	0.6	5.0	1.7
Benin	1990–1995	4.4	0.6	0.5	4.2	1.0
Madagascar	1995–2000	4.0	1.2	-0.1	3.9	0.7
Malawi	1995–2000	3.8	3.9	0.2	3.9	1.6
Ethiopia	1990–1995	2.5	1.4	-0.8	3.0	1.3
Mauritania	1990–1995	2.0	3.1	-1.4	3.9	1.1
Guinea	1990–1995	1.8	1.2	-0.1	3.9	1.1
Zambia	1990–1995	1.7	2.4	4.7	-1.1	-3.9
Malawi	1990–1995	0.9	0.4	-1.7	1.6	0.0
<b>Increasing exports and decreasing private consumption per capita</b>						
Equatorial Guinea	1990–1995	29.2	-2.0	1.9	7.0	4.3
Guinea-Bissau	1995–2000	25.9	-4.9	0.9	-2.7	-4.7
Burundi	1995–2000	20.3	-2.0	2.5	-0.3	-2.3
United Rep. of Tanzania	1990–1995	17.8	-0.7	-0.1	1.6	-1.4
Sao Tome and Principe	1995–2000	16.1	-9.8	6.2	2.1	-0.2
Mozambique	1990–1995	14.9	-1.0	2.3	3.2	0.9
Cape Verde	1990–1995	12.5	-0.7	3.0	5.4	3.0
Lesotho	1990–1995	11.2	-6.8	1.9	4.1	1.9
Dem. Rep. of the Congo	1995–2000	11.1	-6.6	-1.7	-3.7	-6.6
Angola	1990–1995	11.0 <sup>c</sup>	-11.9	-1.0	-6.7	-9.8
Maldives	1995–2000	8.9	-4.6 <sup>d</sup>	2.6	5.5	3.0
Comoros	1990–1995	7.4	-4.5	-0.9	1.1	-1.5
Mali	1990–1995	6.7	-1.8	0.0	2.6	0.0
Lesotho	1995–2000	6.6	-6.5	3.5	2.9	1.2
Madagascar	1990–1995	4.5	-1.9	-0.7	0.1	-2.6
Burundi	1990–1995	4.1	-1.5	-1.3	-2.6	-4.9
United Rep. of Tanzania	1995–2000	2.3	-0.2	1.6	3.9	1.3
Yemen	1995–2000	1.0	-0.5 <sup>d</sup>	4.4	5.6	2.6
<b>Decreasing exports and increasing private consumption per capita</b>						
Togo	1995–2000	-0.1	2.6	-1.9	1.9	-1.0
Mauritania	1995–2000	-0.8	0.9	3.9	4.1	0.9
Gambia	1990–1995	-4.1	0.2	-3.0	2.1	-1.5
Burkina Faso	1990–1995	-4.8	0.5	-1.3	4.2	1.8
<b>Decreasing exports and decreasing private consumption per capita</b>						
Senegal	1990–1995	-0.2	-1.6	-0.1	1.3	-1.2
Niger	1990–1995	-0.8	-1.5	-0.4	0.4	-2.9
Sao Tome and Principe	1990–1995	-1.4	-4.3	0.9	1.5	-1.2
Chad	1995–2000	-2.5	-0.3	1.6	3.5	0.7
Togo	1990–1995	-2.9	-12.4	-0.2	-1.0	-3.4
Comoros	1995–2000	-4.1	-1.1	-2.0	1.3	-1.2
Eritrea	1995–2000	-10.9	-8.5 <sup>d</sup>	6.2	2.1	-0.6
Sierra Leone	1990–1995	-11.2	-3.8	-9.3	-5.6	-7.9
Dem. Rep. of the Congo	1990–1995	-15.3	-11.5	0.1	-8.0	-11.1
Rwanda	1990–1995	-24.9	-1.7	-4.9	-12.1	-7.2
Sierra Leone	1995–2000	-47.0	-10.5	1.4	-5.1	-7.1

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

a In 1985 PPP \$ unless otherwise states.

b DRAF % GDP refers to the ratio of domestic resources available for financing to GDP, that is (GDP minus household consumption) % GDP. The calculation was based on data in constant local currency units.

c 1990–1994.

d In constant local currency units.

and increasing private consumption per capita in only two LDCs during both 1990–1995 and 1995–2000 periods — Bangladesh and Benin. This favourable configuration is evident in Uganda in the first period, and in Guinea, Malawi, Mozambique and Rwanda during the second period.

To sum up, it is very difficult to achieve both sustained export expansion and poverty reduction at the same time in very poor countries. A domestic resource mobilization effort can help to sustain export expansion. But it eats into the resources available to finance minimal subsistence levels of consumption. This is very difficult in situations of generalized or mass poverty. If domestic resource mobilization goes too far, the process of export expansion is likely to come to halt as resources have to be diverted back to consumption. If export expansion is strongly associated with increasing GDP per capita, it is possible for growing exports, a falling share of consumption in GDP and increasing average consumption per capita to go hand in hand. But if the trade–growth relationship is weak, as it is in many LDCs, the trade-off between domestic resource mobilization effort and poverty reduction will be particularly sharp. The availability of external resources can play an important role in lessening the trade-off. If these support efficient investment and export development, they can play a major role in promoting a situation in which export expansion without poverty reduction or immiserizing trade is replaced by export expansion with poverty reduction.

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*If the trade–growth relationship is weak, as it is in many LDCs, the trade-off between domestic resource mobilization effort and poverty reduction will be particularly sharp.*

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## F. Conclusions

This chapter has identified three major areas where international trade is not working effectively to reduce poverty in the LDCs: trade performance, which is weak; trade–growth linkages, which are also weak; and the association of export expansion with a form of economic growth which is not poverty-reducing.

The first and simplest reason why the trade–poverty relationship has broken down is that the trade performance of some LDCs has been inadequate to enable sustained economic growth and poverty reduction. This has been a particular problem in the commodity-dependent LDCs. They have experienced major resource losses owing to falling commodity prices and also loss of market share. The latter phenomenon has been particularly marked for food exports and minerals, ores and metals, but less so for agricultural raw materials. There are some primary commodities in which the LDCs are gaining market share, but they tend not to be market-dynamic products. Weak and unstable export growth has been associated with the build-up of external debts and the creation of an aid/debt service system that has undermined the developmental effectiveness of aid.

Improved trade performance is a necessary condition for escaping this complex poverty trap. But the experience of the 1990s, when trade performance improved in many LDCs, including some of the commodity-dependent LDCs, shows that the relationship between trade and poverty is asymmetrical. Although LDCs with declining exports are almost certain to have a rising incidence of poverty, increasing exports do not necessarily lead to poverty reduction.

Using trends in private consumption per capita as a proxy measure of trends in the incidence of \$1/day and \$2/day poverty, and focusing on trends in the LDCs in the first and second half of the 1990s, it is apparent that one third of the

cases of export expansion can be characterized as immiserizing trade. In these situations, at the same time as export expansion occurs, average private consumption per capita is falling by over 1 per cent per annum. There is evidence of some improvement in the trade–poverty relationship during the decade in the sense that export expansion with rising average private consumption per capita was more common in the period 1995–2000 than in 1990–1995. But there is no statistically significant relationship between export growth and changes in private consumption per capita in either period. Moreover, there are only three LDCs in which export expansion is associated with private consumption per capita rising by over 1 per cent per annum during both periods. Poverty reduction in the LDC context can be expected to occur if there are sustained and substantial increases in average private consumption per capita. But export growth is simply not having such an effect in most of the LDCs.

Against this background, a second reason why the trade–poverty relationship is breaking down is weak trade–growth linkages. For the LDCs, the import–supply effects of exports are an important mechanism through which export growth has a positive impact on output growth. There is indeed a stronger relationship between import growth and investment growth in the LDCs than in other developing countries. This implies the possibility of a strong investment–export nexus through increased exports enabling increased imports, increased imports enabling increased domestic investment, and increased domestic investment leading to higher economic growth. However, in practice, the relationship between export growth and output growth is somewhat weaker in the LDCs than in other developing countries. In the 1990s, at any given export growth rate, output growth was lower in the LDCs than in other developing countries.

The evidence suggests that there are two major missing links in the relationship between exports, imports, investment and growth. One is that the growth in import capacity in the 1990s was much slower than export growth. This is likely to reflect decreased aid inflows and changes in contractual debt service obligations. But on top of this, increased investment is not as strongly associated with increased economic growth in the LDCs as in other developing countries. International trade cannot work to reduce poverty in countries where the level and efficiency of investment are not adequate to support sustained economic growth. On the basis of analysis in *The Least Developed Countries Report 2000*, major reasons for the breakdown of the investment–growth relationship are the weakness of the domestic entrepreneurial class, the great dependence of the central budgetary and accumulation processes in the LDCs on aid, and external indebtedness. A basic condition for ensuring a better trade–poverty relationship in the LDCs is the emergence of a domestic entrepreneurial class oriented towards productive activities, more and more effective aid and a durable exit from the debt problem. In the absence of these the emergence of a strong investment–export nexus that would underpin sustained economic growth is unlikely.

High population growth rates also mean that higher export growth rates must be achieved in order to ensure that output growth occurs at a sufficiently fast rate for GDP per capita to increase. Amongst the LDCs, GDP per capita is almost invariably declining in countries where exports are declining, and almost invariably increasing in countries where exports are increasing at more than 5 per cent per annum. But in between, where export growth rates are positive but below the threshold level of 5 per cent per annum, there is a “zone of ambiguity”. In this zone, export growth may be associated with rising or

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*Improved trade performance is a necessary condition for escaping this complex poverty trap. But increasing exports do not necessarily lead to poverty reduction.*

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declining GDP per capita. Indeed, the relationship between export growth and output growth, and population growth rates in the LDCs, is such that in those countries there is actually a higher probability that export expansion will be associated with falling GDP per capita if real export growth rates are positive but below the 5 per cent threshold level.

The third reason why the trade–poverty relationship is breaking down is that export expansion is not associated with a form of economic growth that is poverty-reducing. Limited data make it difficult to draw general conclusions on the inclusiveness of economic growth. There is some evidence of a tendency for immiserizing trade to occur in high-inequality LDCs. But this issue needs to be pursued further through case studies that include the trade–employment relationship. However, the chapter has two important findings regarding the form of economic growth.

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*International trade cannot work to reduce poverty in countries where the level and efficiency of investment are not adequate to support sustained economic growth.*

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First, situations of export expansion with poverty reduction are particularly likely if there is a balanced pattern of economic growth in which domestic demand expansion is the major demand-side component of economic growth, but export expansion also makes a significant contribution to the overall process. In the 1990s the least favourable trade–poverty relationships were found in countries in which import substitution made the major demand-side contribution to economic growth, and also in countries in which export expansion made the major demand-side contribution.

Second, the trade–poverty relationship is breaking down partly because of domestic resource mobilization efforts associated with export expansion. In two thirds of situations of immiserizing trade and export expansion without poverty reduction in LDCs in the periods 1990–1995 and 1995–2000 there was an increasing domestic resource mobilization effort and a falling share of private consumption in GDP. The domestic resource mobilization effort supporting export expansion is positive from the perspective of growth sustainability to the extent that it is associated with efficient investment. But it is very difficult for such “belt tightening” to occur in very poor countries, where the average consumption of the population as a whole is equivalent to just \$1 a day, without a rising incidence of poverty. Moreover, if the “belt tightening” associated with export expansion becomes too much, it may be that the whole growth process cannot be sustained.

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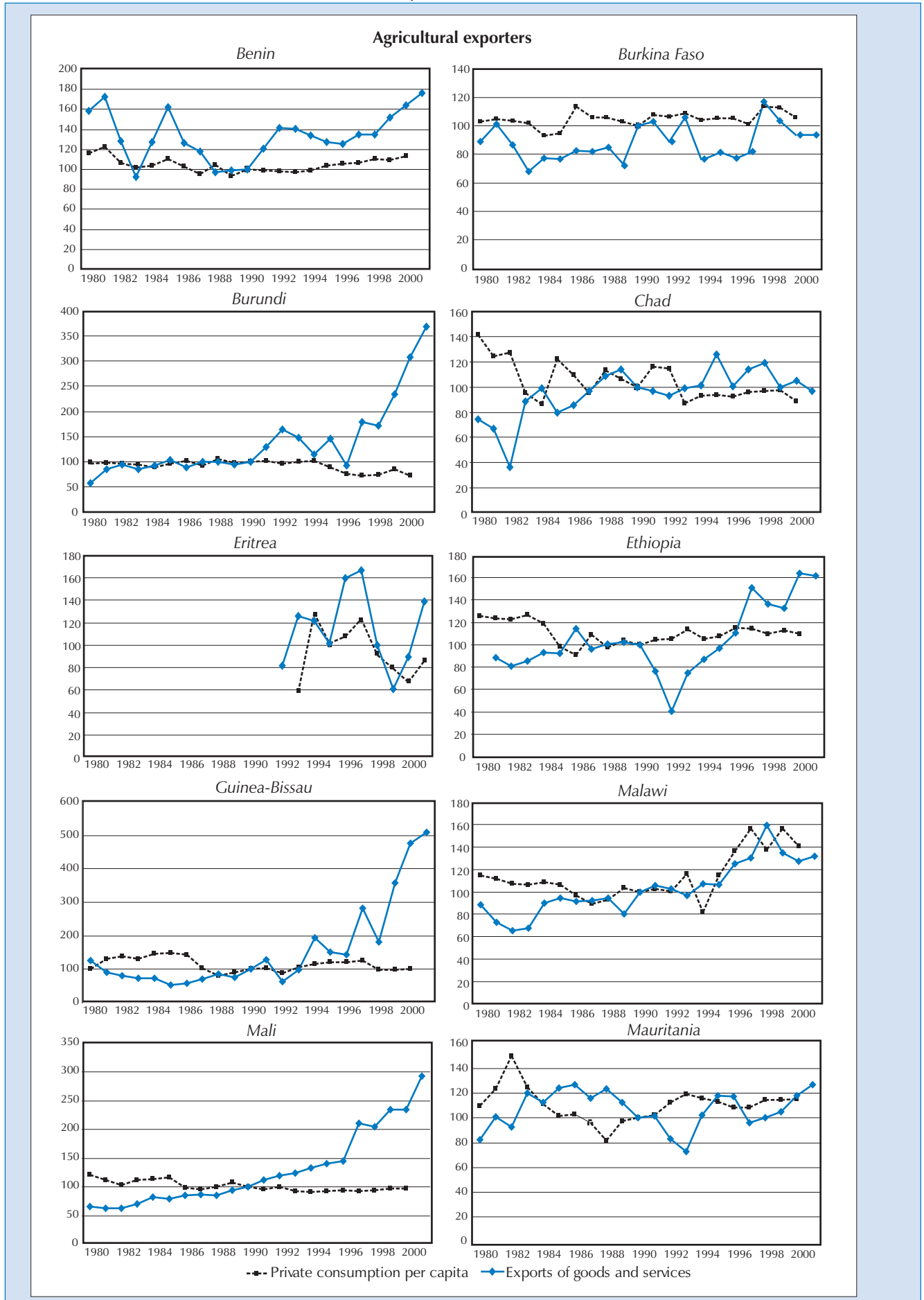
*The availability of external resources can play a major role in ensuring that export expansion, increased domestic resource mobilization and poverty reduction all occur together.*

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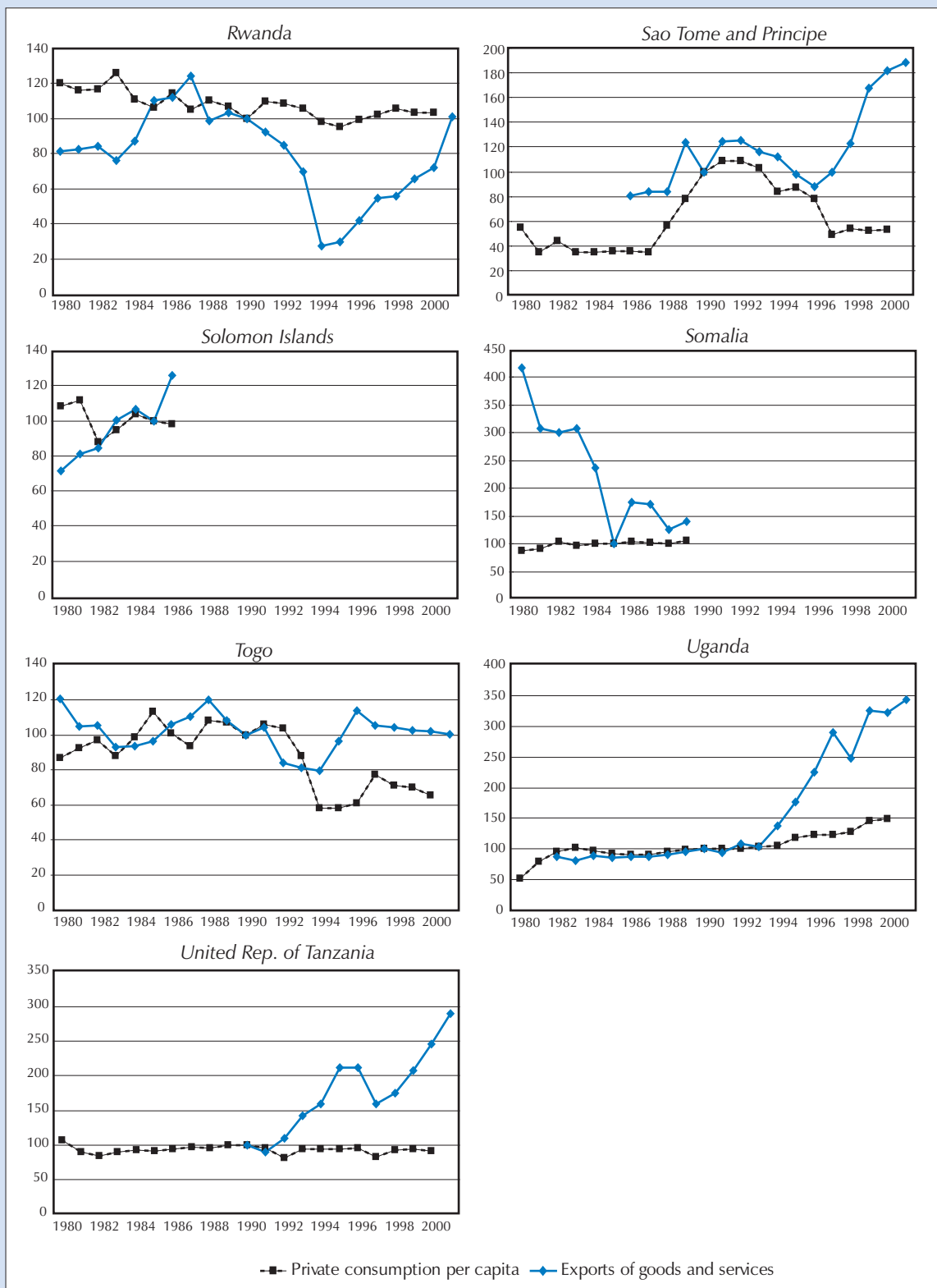
The trade-off between increased domestic resource mobilization, which can help to strengthen export growth, and reduced poverty is a major dilemma in poor countries. It becomes less acute to the extent that there is not mass poverty and the average private consumption per capita of the majority of the population is not at basic subsistence levels. Moreover, the trade-off between the two desirable goals is loosened if the trade–growth relationship is stronger. But if export growth is associated with slow increases in GDP per capita, as it is in many LDCs, the trade-off is likely to be particularly sharp. The availability of external resources can play a major role in ensuring that export expansion, increased domestic resource mobilization and poverty reduction all occur together.

These findings have important policy implications. However, before discussing what these are, the next chapter completes the analysis of how the trade–poverty relationship works in practice in the LDCs by considering how the relationship is affected by civil conflict.

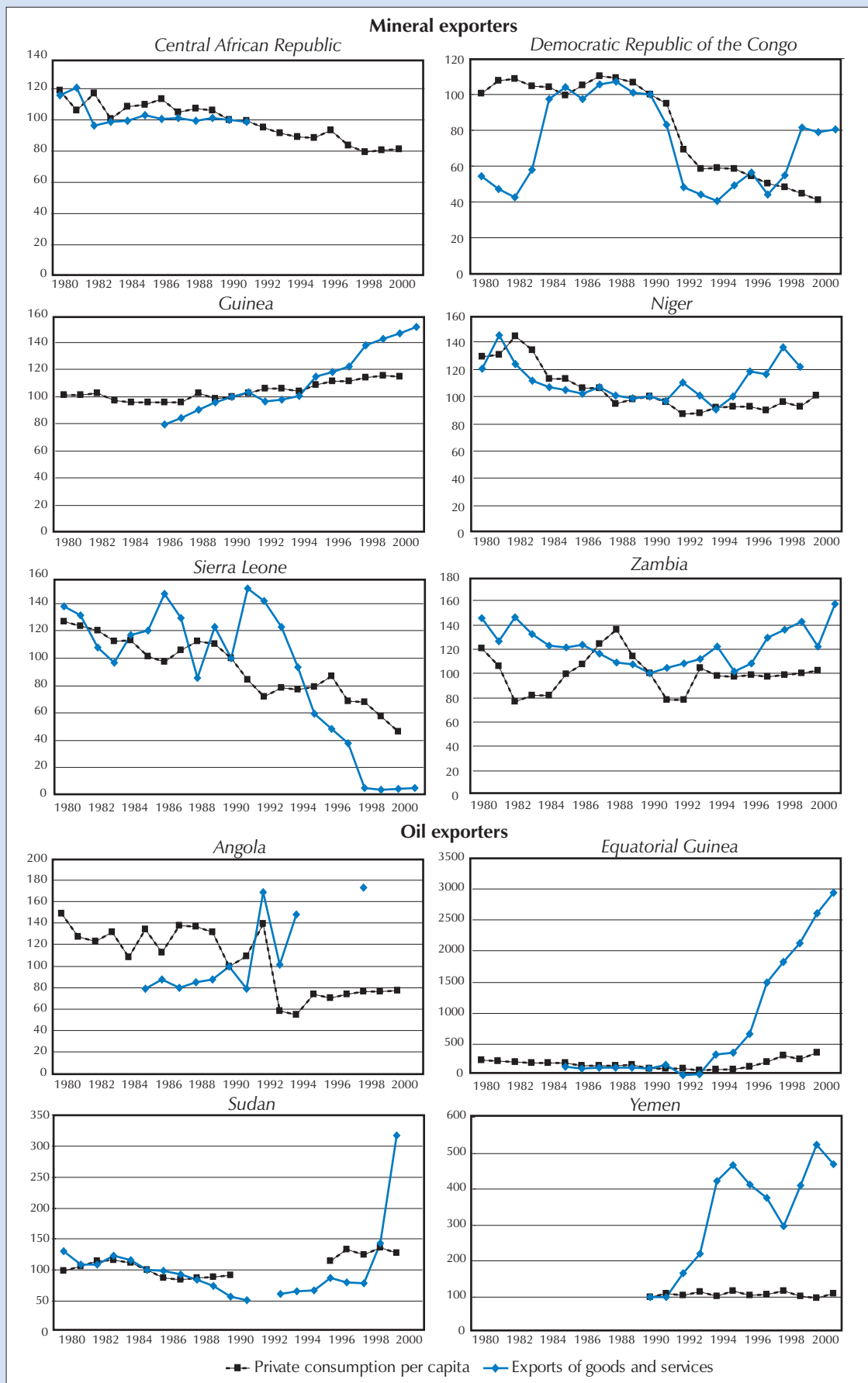
ANNEX CHART 1. INDICES OF REAL EXPORTS AND REAL PRIVATE CONSUMPTION PER CAPITA IN LDCs, 1980–2001  
(Base year 1990 = 100)



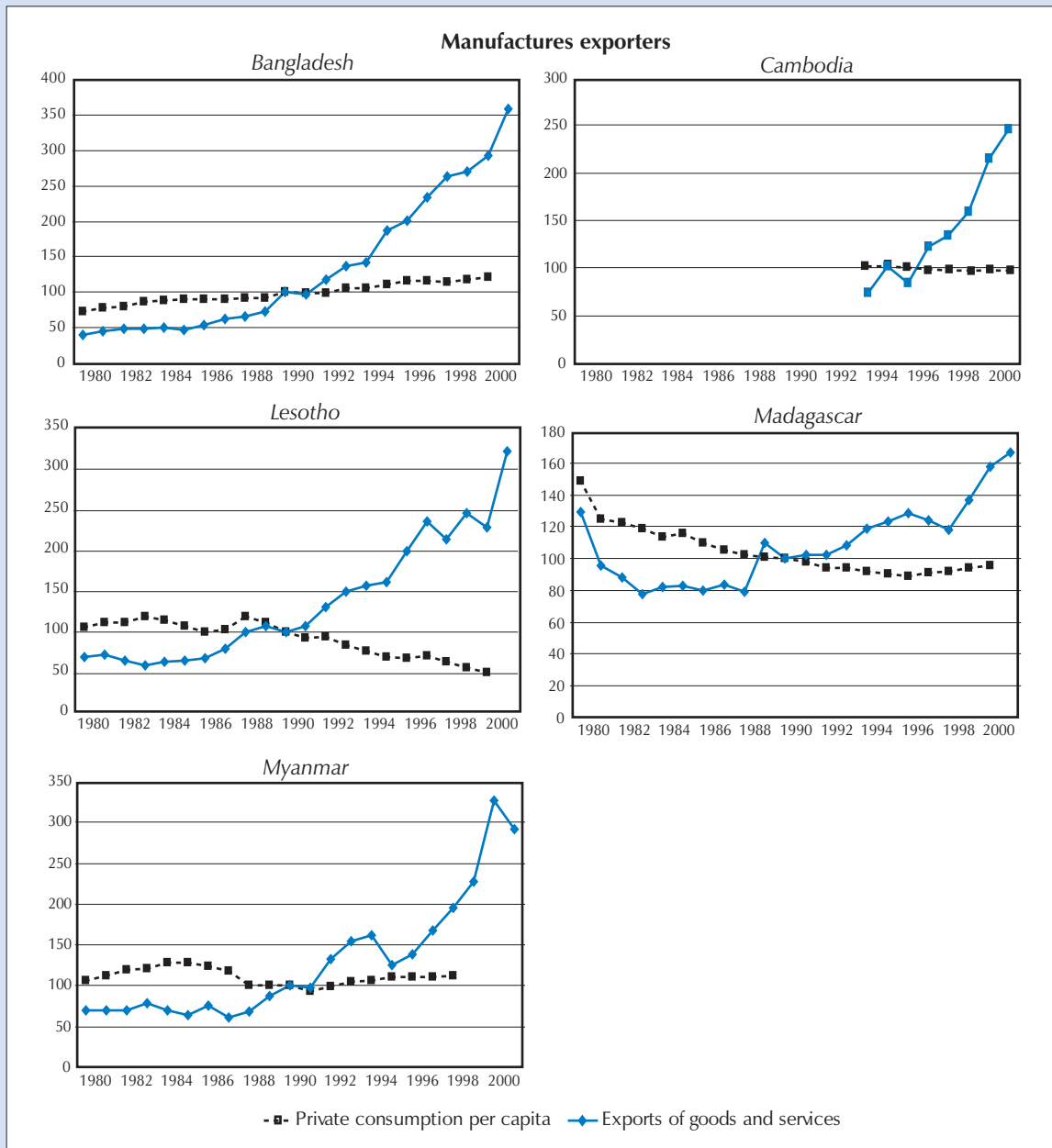
Annex chart 1 (contd.)



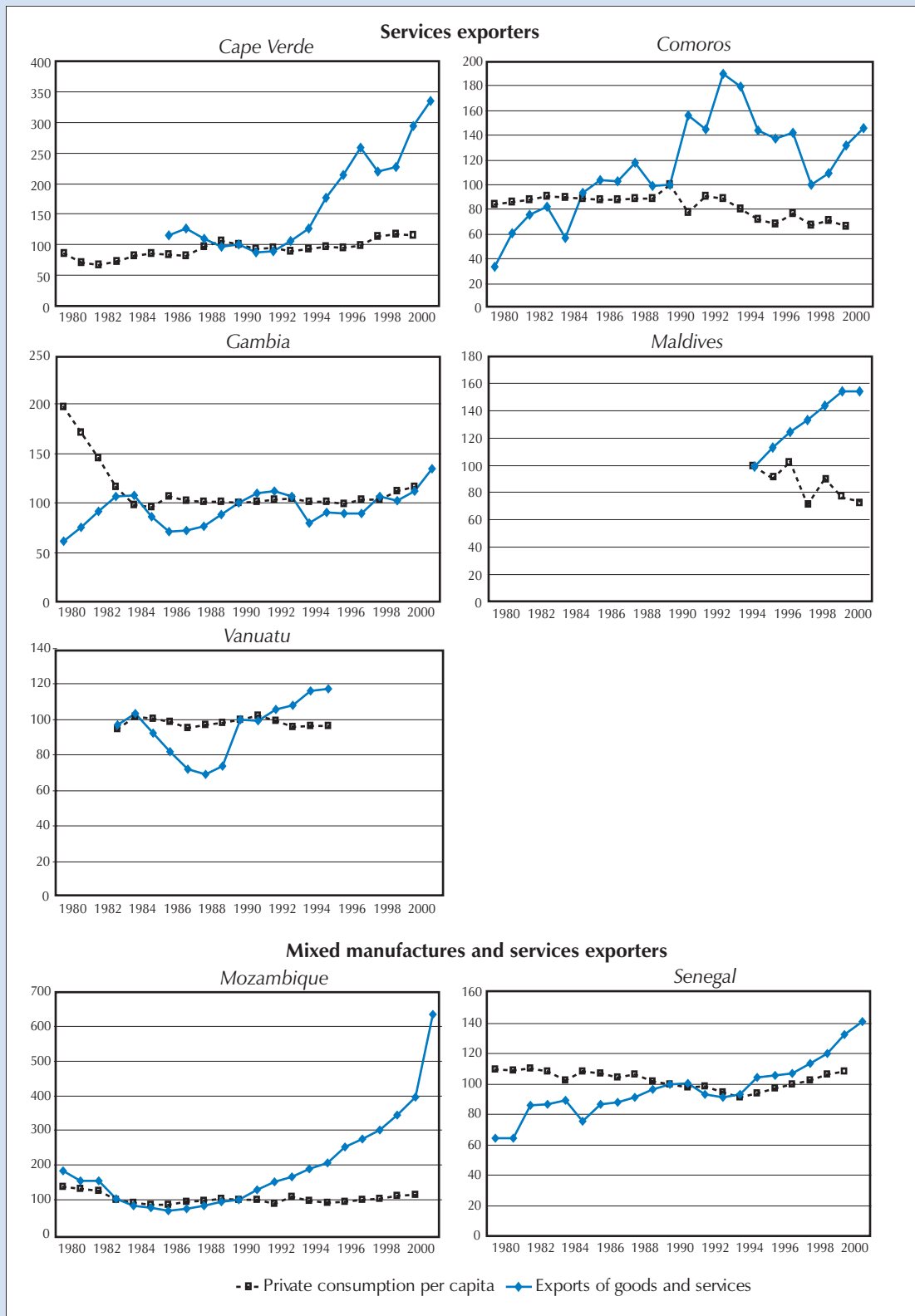
Annex chart 1 (contd.)



Annex chart 1 (contd.)



Annex chart 1 (concluded)



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

Notes: The index for real exports of goods and services was calculated on the basis of exports data expressed in constant local currency units. The index for real private consumption per capita is derived from data expressed in 1985 PPP dollars, except for Cambodia, Eritrea, Maldives, Solomon Islands, Somalia and Sudan. For these countries, the index of real private consumption per capita was calculated on the basis of data in constant local currency units since data on private consumption per capita in 1985 PPP dollars were not available.

The base year is 1990 for all LDCs except Cambodia (1995), Eritrea (1995), Maldives (1995), the Solomon Islands (1985), Somalia (1985) and Sudan (1985).

No data are available for Afghanistan, Bhutan, Djibouti, Haiti, the Lao People’s Democratic Republic, Liberia, Nepal, Samoa or Tuvalu.

## Notes

1. See part two, chapters 3 and 4.
2. In accordance with the Standard International Trade Classification (SITC) system, manufactures are defined by codes 5 to 8, less 68.
3. Throughout this chapter, the LDCs will be classified according to their export specialization at the end of 1990s into: (1) Non-oil commodity exporters including (i) agricultural exporters and (ii) mineral exporters; (2) Oil exporters; and (3) Exporters of manufactures and/or services. The latter has generally experienced, during the last 20 years, a transformation in their exports structure in which the proportion of primary commodities in total exports has declined (relatively or absolutely), and either manufacturing or service activities have become the major export activities.
4. For a review of the trade performance of countries in Sub-Saharan Africa, which highlights similar findings, see Ng and Yeats (2000).
5. Calculations based on World Bank, *World Development Indicators 2003*, CD-ROM. Calculations used exports of goods and services as reported in the balance of payments. The share of the 1999 list of LDC exports in world exports in 1980 (0.91 per cent) was applied to the value of world exports in 2001. The forgone gains are the difference between the actual LDC shares in world exports in 2001 and the hypothetical LDC shares in world exports of that year.
6. By 2003, the only non-oil commodity-exporting LDCs with an unsustainable debt were Bhutan, Eritrea, Kiribati and the Solomon Islands.
7. These three components are identified through the following equation:

$$\begin{array}{cccc}
 (Y_t - Y_{t-1}) & = & \alpha_{t-1} (D_t - D_{t-1}) & + & (\alpha_t - \alpha_{t-1}) S_t & + & \alpha_{t-1} (X_t - X_{t-1}) \\
 \text{GDP} & & \text{Domestic} & & \text{Import} & & \text{Export} \\
 \text{increase} & & \text{demand} & & \text{substitution} & & \text{effect} \\
 & & \text{contribution} & & \text{contribution} & & \text{contribution}
 \end{array}$$

Where:

Y = GDP, D = domestic demand (=Y+M-X), S = total supply (=Y+M), X = total exports of goods and services (fob), M = total imports of goods and services (cif),  $\alpha$  = GDP as share of total supply (Y/S), t = final year of period, t-1 = initial year of period. See Morley and Vos (2000).

8. Ratios are calculated on the basis of values in constant 1995 \$ and are weighted averages.

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