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EXPORT PERFORMANCE FOLLOWING TRADE LIBERALIZATION: Some Patterns and Policy Perspectives



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Chapter 1

TRADE LIBERALIZATION AND EXPORT PERFORMANCE TRENDS IN AFRICA

A. Historical timeline

Seen in a historical context, Africa's trade has gone through three distinct phases. Prior to the early 1960s, when many African countries gained independence, African trade policy was defined by the colonial Powers. Trade was essentially a two-way relationship between African countries and their metropolises, whereby primary commodities were exported and manufactured products imported. The trade structure of African countries during this period was driven by the interests of the colonial Powers.

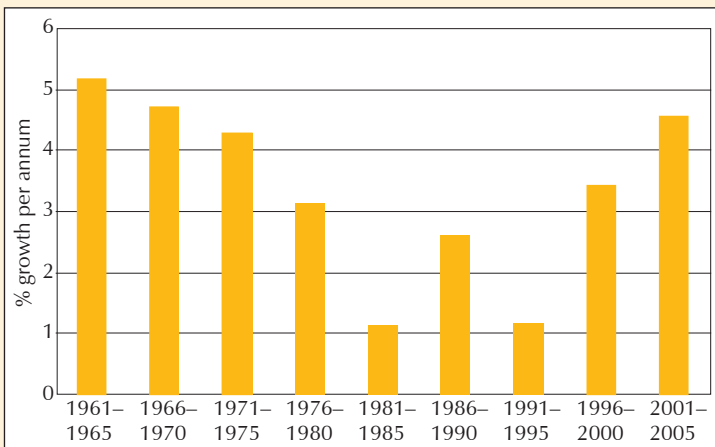
In the period from the 1960s to the 1980s, the trade policies of many countries in Africa were informed by the doctrine of import-substitution industrialization. For example, Burundi, Ethiopia, Ghana, Madagascar, Nigeria, Senegal, Sudan, the United Republic of Tanzania, and Zambia all adopted inward-oriented policies with significant trade restrictions. This strategy advocated the protection of the domestic market from foreign competition in order to promote domestic industrial production. Import-substitution industrialization was widely accepted in the 1960s and 1970s as a viable policy package to help developing countries achieve structural transformation and lessen their dependence on primary products.

As a result, trade policies in most African countries during this period were characterized by extensive State involvement in the economy, both in production and in marketing. Additionally, the domestic market in these countries was shielded from foreign competition through a number of policy measures. Non-tariff measures (NTMs) such as quantitative import restrictions and government licences were used profusely to restrict imports. Tariff structures were often highly complex, with a large number of tariff rates, and tariffs were high. Exports were often restricted by a number of export taxes and strict rules and regulations. The exchange rates of countries outside the CFA franc zone were often highly overvalued and access to foreign exchange was rationed.

In the late 1970s and early 1980s, a combination of factors created a large-scale economic crisis in sub-Saharan Africa. The external environment deteriorated as a result of the global economic crisis that followed the two oil crises of 1973 and 1979, strongly and negatively affecting the demand for African exports and resulting in falling commodity prices. Additionally, interest rate hikes dramatically increased the cost of servicing foreign debt (UNCTAD, 2004). Domestically, few countries were able to effectively use import-substitution industrialization to create an internationally competitive manufacturing sector. Instead, many countries in Africa found themselves facing difficult global conditions with economies that lacked competitiveness due to excessive State intervention in the economy and mismanagement. The gross domestic product (GDP) growth rate of the region plunged from 4.3 per cent per annum in the period 1971–1975 to 1.1 per cent in 1981–1985 (fig. 1).

In response to the economic crisis in Africa, the international financial institutions advocated a policy package of market-oriented reforms, of which trade liberalization was an integral part. Indeed, there was a noticeable shift in these institutions' approach to economic policy in Africa as of the early 1980s. This was most evident in the publication of a World Bank study in 1981 entitled *Accelerated Development in Sub-Saharan Africa* (commonly known as the “Berg

Figure 1
GDP growth rate for sub-Saharan Africa, 1961–2005



Source: World Bank, 2008a.

report”, after its main author, Elliot Berg). This report offered a diagnosis of the African crisis that focused strongly on domestic causes. Among the domestic “policy inadequacies and administrative constraints” that were singled out, overvalued exchange rates and trade regulations featured prominently, as well as excessive taxation of agricultural exports through marketing boards. Substantial currency devaluation and trade liberalization, along with the dismantlement of industrial protection measures, were advocated as policies urgently needed to halt the crisis and achieve accelerated development.

The Berg report was representative of an increasing emphasis on domestic causes and solutions to economic crisis on the part of international financial institutions. These institutions, backed by large donors and strengthened by the desperate need of African countries for convertible currency to service their external debt obligations, were able to propagate market-oriented policy packages, usually referred to as “structural adjustment programmes”, within many African countries. As of the mid-1980s, and often as part of the programmes, these countries gradually started to liberalize their trade policies. This unilateral liberalization trend is ongoing and indeed picked up speed with the establishment of the World Trade Organization (WTO) in 1995 and the multilateral trade obligations enshrined in its agreements for African countries that are members.

B. Why trade liberalization?

In view of the continued deterioration of Africa’s economic performance since the 1970s, the overarching objective of economic reforms was to achieve higher rates of economic growth by increasing the efficiency of resource allocation, in particular by aligning domestic prices more closely with international prices. African countries needed to dismantle import controls, such as foreign exchange rationing due to short-run balance-of-payment deficits, as well as long-term protection measures, including tariff and non-tariff barriers. The measures to liberalize imports revolved around three key policies: reducing the overvaluation of African currencies and eliminating foreign exchange rationing; dismantling non-tariff measures by reducing the list of products requiring import licensing; and reforming the tariff system by reducing tariff dispersion and lowering the overall level of tariffs (World Bank, 1994). Additionally, regulatory barriers such as the granting of monopoly privileges were addressed in some cases of trade liberalization.

Export liberalization was also needed to improve the balance of payments. Four instruments deemed to be the most export-distorting were targeted with the following measures: devaluation of the national currency; removal of export licensing; reduction or elimination of export taxes; and dismantling of agricultural marketing boards for export crops. A number of countries also adopted measures to encourage non-traditional exports. These included duty drawbacks, the creation of export-processing zones with better production infrastructure, the revision of foreign investment codes, and the streamlining of reporting and licensing requirements.

By the second half of the 1980s, about 60 per cent of African countries were undergoing or had gone through a structural adjustment programme designed in collaboration with the World Bank and the International Monetary Fund (IMF) (World Bank, 1994). By the mid-1990s, most African countries had undertaken such programmes.

In theory, trade liberalization was expected to have a positive influence on the long-term growth of the economy in several ways. First among these is the “substitution effect”, according to which trade liberalization should reduce the price of imported inputs and remove barriers to export, thereby shifting the incentive structure towards greater production in the tradable sector and improved export performance. This sector is expected to be more efficient than the non-tradable sector as it is more exposed to competition. As a result, total factor productivity in the economy is improved. Second, there is the expectation that greater emphasis on the production of tradables will encourage greater investment. This should expand production and confer positive externalities on the economy, particularly if the investment comes from abroad. Third, increased production for trade means that output volumes rise, allowing for greater specialization and “learning by doing”. Finally, it is expected that trade will lead to technology transfer and that with more efficient technology total factor productivity in the economy will improve.

Overall, it was projected that trade liberalization would result in increased production of tradables and that this would generate positive externalities for the economy by improving the efficiency of production. Trade liberalization was also expected to contribute to an enabling environment for structural transformation of the economy through export-oriented policies, leading to diversification (World Bank, 1981). Chapters 2 and 3 of this report examine the extent to which these expectations have been fulfilled in the agricultural and manufacturing sectors respectively.

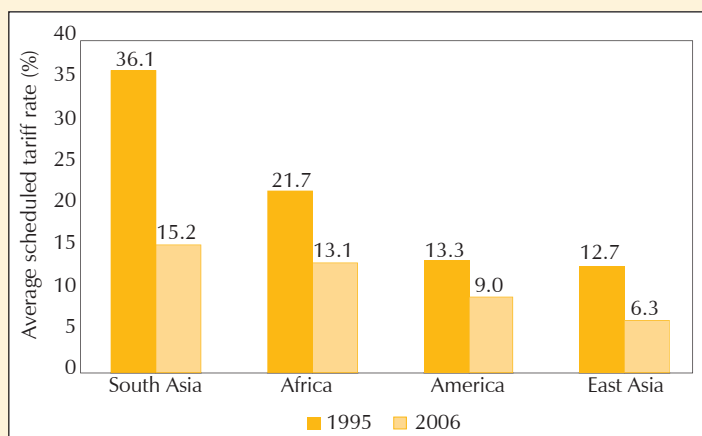
C. Trade liberalization in Africa

1. Liberalization of tariffs and non-tariff measures

Prior to trade liberalization, tariffs in Africa were high and had a very complex structure. These high and variable import barriers distorted prices and encouraged inefficiency. Tariff reforms generally occurred in three stages. The first stage was to rationalize tariffs. This involved reducing the large number of tariff rates, reducing the number of ad hoc rules and regulations, and systematizing the assignment of specific rates to product categories. The second stage was to reduce the spread of tariff rates by reducing the often symbolic maximum rates, and by raising the lowest ones. Finally, the overall level of tariffs was reduced in order to lower the effective protection of the domestic economy (World Bank, 1994).

The reduction in tariff rates was only a part, then, of tariff reform and one that came later than the other stages. The fact that tariff rates have declined significantly in Africa is therefore a testimony to the magnitude of trade liberalization in the continent. Indeed, average tariffs in sub-Saharan Africa were nearly halved between 1995 and 2006. African tariffs remain comparatively high, however, with only South Asia showing higher tariff levels in 2006 (fig. 2).

Figure 2
Unweighted average tariffs in 1995 and 2006



Source: UNCTAD, 2008c.

There is nonetheless considerable heterogeneity in the extent and even the direction of tariff changes among African countries. Indeed, while on average Africa reduced its tariffs by 40 per cent between 1995 and 2006, some countries actually increased their tariffs during this period. These countries tended to have low tariffs to start with, however, and generally did not increase their tariffs to above the regional average. Sudan is an exception, having raised its tariffs from 5 per cent in 1996 to 17 per cent in 2006. On the other hand, a number of countries reduced their tariffs at a much faster pace than the average. Mauritius, for example, reduced its average unweighted tariff by 88 per cent between 1995 and 2006, lowering it from 34.7 per cent to 4.2 per cent. From 31.2 per cent in 1994, Kenya's average unweighted tariff rate fell to 11.9 per cent in 2006. Overall, the number of African countries with average unweighted tariffs of above 15 per cent has fallen to 15 and only three countries have average unweighted tariffs above 20 per cent (table 1).

As we have seen above, high and complex tariffs were not the only impediment to trade in Africa. Indeed, prior to trade liberalization, quantitative import restrictions, administrative barriers and other non-trade measures were, along with foreign exchange controls, the binding constraints on trade in most product areas (Dean et al., 1994). Before the reforms, many African countries such as Ghana, Malawi, Nigeria and the United Republic of Tanzania had NTM coverage of 100 per cent of their tariff lines. Trade liberalization in Africa has reduced the coverage of non-tariff measures considerably. One of the main policies associated with trade liberalization has been the conversion of NTMs into tariff equivalents, in a process known as "tariffication". As a result, Africa is now one of the regions of the world where NTMs are least used. For example, in the review of its Trade Restrictiveness Index, the IMF (2005) compares NTM data on 12 major trading countries and the European Union. The data show that Africa's major trading partners had very high NTMs. In 1999, the European Union had 2,203 product lines subject to NTMs, while the United States of America had 1,692 lines. Japan had 1,111 product lines subject to NTMs in 2001. In comparison, three African countries in the IMF study, namely, Algeria, Egypt and Nigeria, had 194 lines, 398 lines and 167 lines, respectively, in 2001. While African countries have reduced their NTMs considerably, their exports are now restricted by NTMs in their partners' economies. This must be borne in mind when assessing the continent's trade performance. Indeed, in recent years, the heavy use of NTMs has mainly been the preserve of developed countries, which have often used social, environmental, sanitary and phytosanitary measures or strict rules of origin as NTMs (Bora et al., 2002).

Table 1
Unweighted average tariff changes in African countries

Country	Year	Average scheduled tariff	Year	Average scheduled tariff
Africa	1995	21.71	2006	13.06
Algeria	1993	21.44	2006	15.81
Angola	2002	8.15	2006	7.55
Benin	2001	14.03	2006	13.42
Botswana	2001	5.95	2006	8.74
Burkina Faso	1993	25.06	2006	12.20
Burundi	2002	21.90	2006	14.65
Cameroon	1995	18.10	2005	19.16
Cape Verde	2005	15.42	2005	15.42
Central African Republic	1995	17.24	2005	18.79
Chad	1995	17.08	2005	17.91
Congo	1994	20.49	2005	19.27
Côte d'Ivoire	1996	19.43	2006	13.45
Dem. Republic of the Congo	2003	13.08	2006	13.05
Djibouti	2002	30.95	2006	30.23
Egypt	1995	24.30	2005	19.09
Equatorial Guinea	1998	19.45	2005	19.00
Eritrea	2002	10.10	2006	9.56
Ethiopia	1995	29.41	2006	16.44
Gabon	1995	20.29	2005	20.05
Ghana	1993	13.64	2004	13.15
Guinea	2005	14.16	2005	14.16
Guinea-Bissau	2001	13.58	2006	12.73
Kenya	1994	31.24	2006	11.91
Lesotho	2001	10.55	2006	9.86
Libyan Arab Jamahiriya	1996	22.87	2006	0.00
Madagascar	1995	7.49	2006	13.26
Malawi	1994	31.42	2006	12.88
Mali	1995	15.98	2006	12.58
Mauritania	2001	12.83	2006	11.58
Mauritius	1995	34.70	2006	4.21
Morocco	1993	64.07	2006	15.53
Mozambique	1994	5.00	2006	12.69
Namibia	2001	5.75	2006	5.81
Niger	2001	14.38	2006	13.07
Nigeria	1995	22.07	2006	11.68
Rwanda	1993	38.69	2006	19.71
Senegal	2001	13.86	2006	13.49
Seychelles	2000	27.31	2006	6.33
South Africa	1996	15.02	2006	8.31
Sudan	1996	5.03	2006	17.14
Swaziland	2001	3.06	2006	10.33
Togo	2001	14.26	2006	14.00
Tunisia	1995	29.67	2006	22.87
Uganda	1994	16.61	2006	12.00
United Republic of Tanzania	1993	15.54	2006	12.52
Zambia	1993	25.34	2005	14.59
Zimbabwe	1996	40.64	2003	16.66

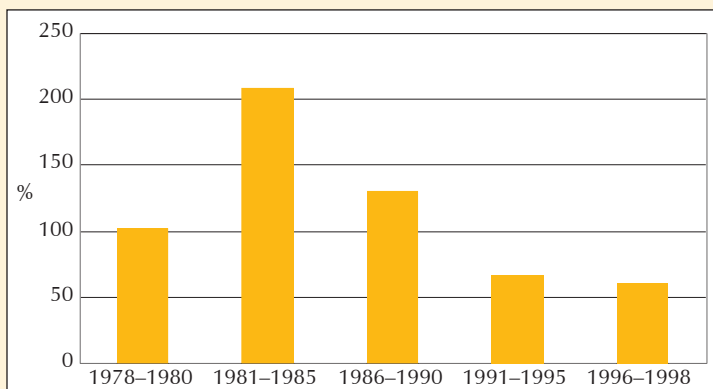
Source: UNCTAD 2008c.

2. Liberalization of exchange rates

Many African countries suffered from severe overvaluation of their currencies prior to trade liberalization. The liberalization of exchange rates was therefore a crucial policy measure as the overvalued currencies acted as a disincentive for exports. Indeed, as a significant proportion of the cost of production is paid in domestic currency, an overvalued exchange rate results in a reduction of incentives and of exporters' ability to compete in foreign markets. This obstructs the flow of foreign exchange receipts and damages a country's ability to purchase the imports needed for economic activity. In addition, an overvalued exchange rate means that import-competing industries are faced with increased pressure from imports, resulting in increased calls for protection against these from industrial and agricultural lobbies. It was therefore clear that trade liberalization through the removal of import restrictions would only be effective with a competitive exchange rate. In addition, overvaluation of the currency creates lower tradable prices, higher real wages, and lower profit margins and investment (Gala, 2008). Competitive exchange rates should therefore help the development of industries in African countries provided that productive capacities are dynamic enough to respond to these policies.

African countries have largely been successful in terms of exchange rate liberalization. In the early 1980s, many countries experienced severe overvaluation. The parallel market exchange rate premium¹ reached an average of 861 per cent in Ghana for the period 1981–1985. By comparison, the figures for the same period were 1,569 per cent in Mozambique and 259 per cent in the United Republic of Tanzania. By the early 1990s, overvaluation had been greatly reduced. In Ghana, the parallel market premium was only 3 per cent for the period 1991–1995, while the figures in Mozambique and the United Republic of Tanzania were 17 per cent and 22 per cent respectively. Figure 3 presents simple unweighted averages for a sample of countries for which there are sufficient data. The declining trend in the level of black-market premiums clearly shows the important achievements of African countries in containing overvaluation. In recent years there has generally been convergence between official and parallel market exchange rates in African countries.

Figure 3
Parallel exchange rate premiums in Africa, 1978–1998^a
 (Per cent)



Source: UNCTAD calculations based on World Bank, 2008a.

- a Unweighted average of parallel exchange rate premiums for 29 African countries for which there are sufficient data.

3. Timing of trade liberalization

It is difficult to determine the exact date at which trade liberalization takes place in a country and when it can be said to have a liberalized trade regime, as liberalization is a gradual process (Borgatti, 2007). Whereas changes in tariff barriers are relatively easy to measure and monitor, many other policies that influence the protection level of a country's economy are more complex to evaluate.

One well-known measure used to date trade liberalization was developed by Sachs and Warner (1995). This measure highlights the main policy thrusts of trade liberalization. According to the authors, a country's trade regime is closed if it displays any of the following five criteria: (1) average tariff rates of 40 per cent or higher; (2) non-tariff measures covering at least 40 per cent of trade; (3) a period average parallel market exchange rate premium of 20 per cent or more; (4) the existence of a State monopoly on major exports; and (5) a socialist economic system. The authors used several sources, including historical data and secondary sources such as country case studies to collect this information. This allowed them to determine which countries were deemed "liberalized" and which ones were not.

A number of criticisms have been levelled against this measure.² The criticisms mostly reflect the difficulty of measuring liberalization. This measure does, however, have the merit of encompassing different aspects of trade liberalization beyond the traditional analysis based on tariff barriers and covers a large sample of countries. Hence, despite its limitations, the Sachs and Warner measure remains the most comprehensive and is still widely used in the literature on trade (Wacziarg and Welch, 2003).

This report recognizes the need to assess the effect of trade liberalization on some key variables, which requires dating liberalization, despite the definitional difficulties associated with the approach. This caveat should nonetheless be kept in mind when interpreting the results of the analysis based on these data. Table 2 gives the years of liberalization for 43 African countries according to two definitions (see box 1).

These dates are used in the subsequent econometric analysis of export performance before and after trade liberalization. Table 2 highlights the fact that, by the mid- to late-1990s, most African countries had liberalized their trade policies. Thus, broad comparisons will also be made between post-1990s and pre-1990s trade patterns to see how they have changed following trade liberalization.

D. Export performance following trade liberalization

1. Export ratios

It was expected that trade liberalization would have an influence on the relative importance of trade in the economy. One expected reaction is a rise in imports as a proportion of GDP. With the reduction of barriers to imports the domestic price of imported products goes down, making these products comparatively more attractive. Additionally, the removal of quantitative barriers increased the availability of these imported products in the domestic economy of African countries. A look at the trade performance of African countries before and after liberalization reveals that imports did increase as a proportion of GDP following trade liberalization. As can be seen in table 3, the median ratio of imports to GDP in Africa, which was 31 per cent preceding liberalization, increased to 34 per cent thereafter. This 10 per cent increase is considerably smaller than the increase noted in non-African developing countries following

Table 2
Year of trade liberalization of a sample of African countries

Country	Definition 1: Wacziarg-Welch	Definition 2: W-W & Wu-Zeng
Algeria	n.l.	n.l.
Angola	n.l.	n.l.
Benin	1990	1994
Botswana	1979	1979
Burkina Faso	1998	1998
Burundi	1999	1999
Cameroon	1993	1995
Cape Verde	1991	1991
Central African Republic	n.l.	n.l.
Chad	n.l.	n.l.
Congo	n.l.	n.l.
Côte d'Ivoire	1994	1994
Democratic Republic of the Congo	n.l.	n.l.
Egypt	1995	1995
Ethiopia	1996	1996
Gabon	n.l.	n.l.
Gambia	1985	1987
Ghana	1985	1993
Guinea	1986	1986
Guinea Bissau	1987	2001
Kenya	1993	n.l.
Lesotho	n.l.	n.l.
Liberia	n.l.	n.l.
Madagascar	1996	1996
Malawi	n.l.	n.l.
Mali	1988	1992
Mauritania	1995	2001
Mauritius	1969	1969
Morocco	1984	1998
Mozambique	1995	1995
Niger	1994	1994
Nigeria	n.l.	1988
Rwanda	n.l.	n.l.
Senegal	n.l.	n.l.
Sierra Leone	2001	2001
Somalia	n.l.	n.l.
South Africa	1991	1991
Swaziland	n.l.	n.l.
Togo	n.l.	n.l.
Tunisia	1989	1994
Uganda	1988	1998
United Republic of Tanzania	1995	1995
Zambia	1993	1997
Zimbabwe	n.l.	n.l.

n.l. means that the country had not liberalized by 2001, though it may have done so after 2001.

Note: Definition 2 reports the same values as definition 1 except for the 13 countries covered in the Wu-Zeng study. These are: Benin, Cameroon, Gambia, Ghana, Guinea-Bissau, Kenya, Mali, Mauritania, Morocco, Nigeria, Tunisia, Uganda and Zambia. The methodological difference in the definition of liberalization shows up in the two variables. Kenya, for example, was found by Wacziarg and Welch to have liberalized in 1993 whereas Wu and Zeng found that it had still not liberalized by 2004. Conversely, Nigeria was found by Wacziarg and Welch not to have liberalized by 2001 but Wu and Zeng found that it had liberalized as early as 1988. Apart from these extreme cases, the findings on the other countries are generally in agreement, albeit with some difference in the exact timing of liberalization.

Box 1. Measuring trade liberalization

This report uses two dummy variables of trade liberalization. The first updates (to 2006) the measurement used by Wacziarg and Welch, assuming no reversals in countries' liberalization episodes. This means that a country that was liberalized in 2001 (the latest date for the Wacziarg and Welch series) remained liberalized in 2006. Hence, the dummy takes the value 1 for the period 2002–2006. This is a reasonable assumption considering that, over time, the trend has been towards liberalization rather than the reverse. For example, by 1994, of the 111 countries covered by Sachs and Warner (1995), 78 were closed and 33 open in the period 1970–1989, but in 1990–1999 it was the other way round: 79 countries were open and 32 closed. Moreover, no country classified as open in the period 1970–1989 was closed in the period 1990–1999 (Wacziarg and Welch, 2003). Wu and Zeng (2008), in documenting liberalization episodes of 39 developing countries for the period 1970–2004^a (including 13 from Africa), found that none of these countries had changed status from “open” to “closed” after 2001. For countries that were still closed in 2001, the variable takes “missing values” for the period 2002–2006. The reason is simply that these countries could have liberalized their trade between 2001 and 2006, but this information is not known.

The alternative liberalization variable updates Wacziarg and Welch (2003) with information on the 39 countries studied in Wu and Zeng (2008). Most of the results from the two sources on dates of liberalization are very close but there are a few discrepancies. Wu and Zeng (2008) identify several liberalization episodes, including cases of reversal, that were missed by Wacziarg and Welch (2003). Wu and Zeng (2008) identify liberalization episodes using two measures: (1) a continuous and accumulated tariff reduction of at least 35 per cent; and (2) an overall tariff level of 10 per cent or less. The authors claim that they “take the reductions in non-tariff barriers into consideration when defining a liberalization episode” (p. 4), although they do not explain how. They also note that “reductions in non-tariff barriers are usually accompanied by large tariff cuts” (p. 4), implying that the focus on tariff reduction indirectly reflects the reduction in non-tariff barriers. In addition to their small sample size, Wu and Zeng's lack of clarity regarding the inclusion of non-tariff barriers in the definition of liberalization could be considered a weakness in comparison with the definition proposed by Wacziarg and Welch. For countries that experienced several liberalization episodes, the date reflected in the dummy variable is the first year following the latest episode of liberalization. Given that the study covers only 39 countries, this information is integrated into the larger study by Wacziarg and Welch. The liberalization variable for the countries not covered by Wu and Zeng remains unchanged.

This report uses the updated dataset on the specific years rather than decades of liberalization compiled by Wacziarg and Welch (2003). Although the latter use Sachs and Warner (1995) methodology as a starting point, their measure is more refined. The measure is updated to 2001 covering a larger sample. Whereas Sachs and Warner cover 118 countries, of which 111 had liberalization status, Wacziarg and Welch cover 141 countries. More interestingly, the Wacziarg and Welch measure covers 42 African countries, more than are covered in Sachs and Warner. The refinements brought to the original dataset, the wider coverage of the new dataset and the systematic use of case-study literature to confirm or refine the information on the status of trade liberalization suggest that it is more reliable than the one compiled by Sachs and Warner.

a We thank the authors for sharing their dataset. Table 1 is drawn from an updated version of this dataset.

liberalization, which could be due to the already high levels of imports as a share of GDP in African countries prior to trade liberalization. Imports in African countries were also constrained by the lacklustre export performance of the continent following trade liberalization.

The comparison of export performance prior to and following trade liberalization shows only a limited response in Africa. The importance of exports in Africa, expressed as a percentage of GDP, improved by only about 11 per cent after liberalization. This is much smaller than in the non-African developing-country sample, where the median ratio of exports to GDP responded to liberalization with an increase of 50 per cent (see table 3). It is important, however, to note the heterogeneity of trade performance among African countries. The export-to-GDP ratio of oil exporters is 46 per cent higher than that of non-oil exporting countries, irrespective of trade liberalization.

Overall, the comparison shows a slight deterioration in the trade balance following trade liberalization. In African countries, the trade balance following liberalization was equivalent to -7.7 per cent of GDP, down from -6.6 per cent prior to it. Both these values are higher than the developing-country average. This is despite the fact that import-to-GDP ratios rose by 62 per cent in non-African developing countries following trade liberalization. The main difference is that, in these countries, the increase in imports was compensated by a sharp rise in exports. In Africa, the more limited export response was responsible for the increased trade deficits.

Table 3
Trade performance before and after liberalization
(Median values as a percentage of GDP)

		Before	After	% change
All developing countries	Imports	28.1	37.0	32
	Exports	22.4	29.5	32
	Trade balance	-4.3	-5.9	-37
Africa	Imports	31.0	34.0	10
	Exports	23.2	25.7	11
	Trade balance	-6.6	-7.7	-17
Non-African developing countries	Imports	24.0	38.9	62
	Exports	21.1	31.6	50
	Trade balance	-2.7	-4.9	-81

Note: Trade liberalization is defined according to definition 1 of table 2; all other data from World Bank, 2008a.

These observations confirm the findings of earlier studies such as that by Santos-Paulino and Thirlwall (2004) that trade liberalization in developing countries tends to stimulate imports as well as exports, with the former effect dominating, thereby worsening the balance of trade.

The comparative data in table 3 show the general picture of trade performance prior to and following liberalization. The ratio of exports to GDP increased by 11 per cent and 50 per cent in Africa and non-African developing countries respectively, in the post-liberalization period. However, this increase cannot be attributed to trade liberalization alone, as these simple descriptive statistics do not imply a causal relationship between trade performance and liberalization. In order to find such causal evidence, econometric testing was undertaken (see appendix for detailed results). The ratio of exports to GDP is regressed over its expected determinants, which are the lagged value of the dependent variable, economic growth rates in African and other developing countries' trade partners, changes in terms of trade, changes in real effective exchange rates and a dummy variable representing trade liberalization. The sample is disaggregated into African and non-African sub-samples, which allows Africa's performance to be compared with that of the rest of the developing world.

The econometric results suggest that, other things being equal, trade liberalization increased the ratio of exports to GDP by 9.5 per cent in African countries. In non-African developing countries, trade liberalization increased the exports-to-GDP ratio by 6 per cent. Although the figure for Africa appears higher than the figure for other developing countries, the two are not statistically different. The implication is that the effect of trade liberalization per se on the ratio of exports to GDP does not seem to have had a differentiated impact in the two groups of countries. Rather, it appears that the main factors that have constrained the African export response to liberalization relative to other developing countries have been export momentum and the real effective exchange rate. The concept of export momentum refers to a country's capacity to maintain its level of exports over time. Out of one percentage point of GDP in exports in a given year, African countries are able to keep 0.78 of a percentage point of GDP the following year, as a result of the lower momentum effect. This is lower than in other developing countries where the ratio is 0.87, other things being equal. These two figures are statistically different, implying that non-African developing countries are more effective in maintaining export momentum. The changes in the real effective exchange rate, which is a proxy for domestic policies, have the highest negative effect on exports from African countries and the impact is almost twice as high as that found for other developing countries.³

Other variables such as economic growth rates in importing countries and the terms of trade for exports are important determinants of export performance. However, taken individually, these factors do not seem to have a differentiated effect in Africa relative to other developing countries. With regard to the effect of trade liberalization on imports, the ratio of imports to GDP in Africa is estimated to have increased by 6 per cent in the post-liberalization period — lower than in non-African developing countries, where the corresponding increase is 8 per cent. As shown in table 3, the net effect of the increases in exports and imports on the balance of trade in Africa is negative, suggesting that the effect of trade liberalization on imports prevailed.

2. Export values, volumes and prices

Export performance following trade liberalization cannot be examined by only looking at the ratio of exports to GDP. Indeed, while this measure indicates the degree of trade orientation of a country to some degree, it does not convey a complete picture of the response to trade liberalization. In order to analyse export performance in African countries following trade liberalization, it is necessary to examine the movement in export values as well as the underlying volume and price movements.

Over the period 1995–2006, export values in Africa increased considerably, by 12 per cent per annum. In fact, export values rose faster in Africa during this period than either the world or the developing-country average (see table 4). This high figure masks considerable heterogeneity among African countries. The largest increases occurred in post-conflict countries and oil-exporting countries such as Chad, Equatorial Guinea, Mozambique and Sierra Leone. However, a number of African countries saw very little growth in export values over the

Table 4
Average yearly increases in merchandise export values,
volumes, and prices, 1995–2006
(Per cent)

	Total export value	Total export volume	Export unit price
World	8.15	6.50	1.48
Developing countries	11.53	9.03	2.13
Africa	12.44	5.82	6.14
Developing Asia	11.64	9.91	1.39
Latin America	10.89	7.46	3.20

Source: UNCTAD calculations based on UNCTAD 2008a.

same period. These are mainly countries that experienced political unrest in the period, such as the Central African Republic, Eritrea and Liberia.

Export volumes increased between 1995 and 2006, which partly explains the rise in the total value of exports noted above. This increase is, however, noticeably lower than the increase in the value of exports. Indeed, at 6 per cent per annum, the increase is below the world average for the period and far below the developing-country average. There are various reasons for the increases in export volumes. Mozambique and Sierra Leone, for example, saw large increases as a result of the resumption of export production in post-conflict periods. Equatorial Guinea and Sudan had high figures thanks to large increases in oil exports. Lesotho, meanwhile, was able to exploit trade preferences to increase its production of manufactures, especially textiles, for export. The countries that experienced falls or very low increases in export volumes again include some countries that have suffered from political instability, such as Guinea and Zimbabwe. Nigeria's export volumes also stagnated over the period, due mainly to political unrest in the oil-producing Delta region.

The fact that export values increased faster than export volumes suggests that much of the increase in export values in Africa was due to rising prices rather than to increased export volumes. Indeed, the price of a unit of exports increased by a yearly average of 6 per cent for Africa over the period 1995–2006. This increase is over four times higher than the world average and nearly three times higher than the developing-country average. The largest increases were almost exclusively in oil-exporting countries such as Algeria, Angola, the Congo, Equatorial Guinea and Nigeria. The countries that experienced falls in the unit price of their exports, on the other hand, were those that are not principally exporters of minerals or fuel. They include Burkina Faso, Burundi, Lesotho, Senegal and Uganda. The effect of the recent rise in commodity prices on the export prices of African countries is striking. Indeed, while for Africa as a whole, export unit prices fell by 2 per cent per annum between 1995 and 2001, they increased at a yearly rate of 17 per cent between 2002 and 2006.

In summary, it appears that the notable increase in export values over the period 1995–2006 was driven largely by recent price increases rather than volume increases. The low volume effect indicates weak export response following trade liberalization. Instead, it is only the rise in world export prices, over which African countries have little control, that has allowed African exports to perform better than those of the rest of the world in value terms.

3. Export structure

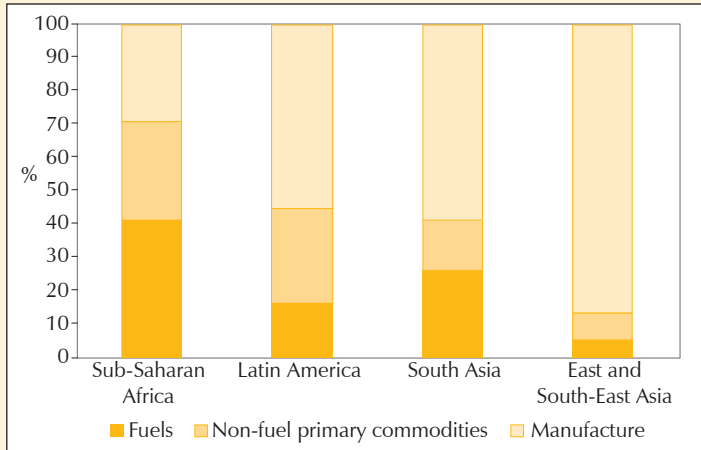
The trade structure of African countries did not change much following trade liberalization. Most countries in the region remain essentially primary product exporters, with only a handful of countries (such as Lesotho, Mauritius and Tunisia) drawing a significant part of their export revenue from manufactured products. This leaves the majority of African countries dependent on volatile global commodity prices. In comparative terms, sub-Saharan Africa is the region of the developing world with the highest dependence on primary product exports, especially fuel (fig. 4). However, a large majority of African countries are not fuel exporters. If the average African country's experience is considered, rather than Africa as an economic entity, African countries remain predominantly non-fuel primary product exporters (fig. 5).

The factors reviewed so far help to explain the evolution of the structure of trade following trade liberalization. It is apparent that there has been little response from either manufacturing exports or from primary product exports if fuels are excluded. Figure 6 shows very clearly that the rise in exports as a share of GDP that is noticeable as of the late 1990s is almost exclusively accounted for by the increase in the export of fuels. Fuels are, however, among the commodities that are least affected by trade restrictions.

This lack of diversification in terms of export sectors is mirrored by the lack of diversification in export products. African economies display very low levels of export diversification, with no discernible trend away from this situation. Most African countries have not managed the transition from traditional exports to more dynamic export sectors with higher earnings. Historically, it appears that episodes of diversification in Africa have been sporadic and short-lasting, the gains of one period often being reversed in the next (Economic Commission for Africa and African Union, 2007).

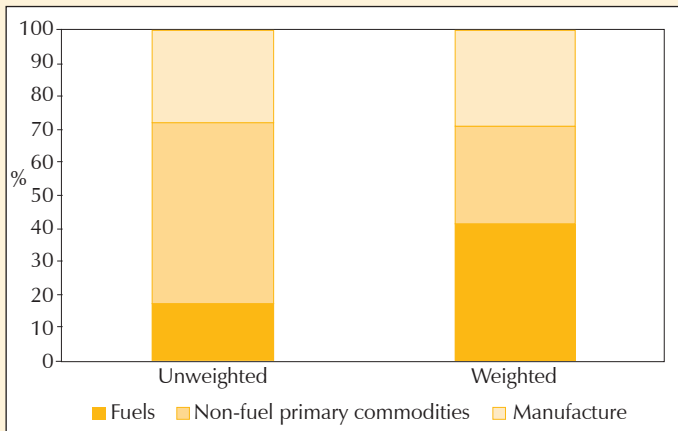
In the period following trade liberalization, the export concentration index for Africa increased by 80 per cent, from a value of 0.21 in 1995 to 0.38 in 2006. This implies that African countries have become increasingly dependent on a limited number of commodities. In comparison with other developing regions, the export concentration index in Africa is very high (fig. 7).

Figure 4
Composition of merchandise exports in developing regions,
1995–2006 averages



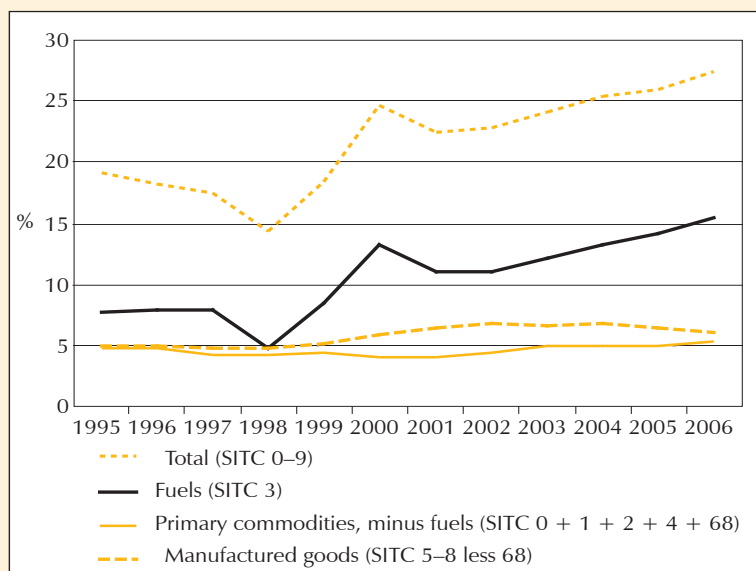
Source: UNCTAD, 2008a.

Figure 5
African countries' export structure, 1995–2006 averages



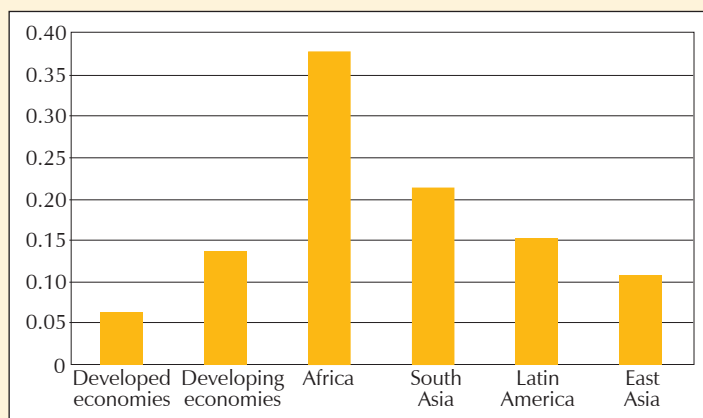
Source: UNCTAD, 2008a.

Figure 6
African exports by type, as a percentage of GDP, 1995–2006



Source: UNCTAD, 2008a.

Figure 7
Export concentration index, 2006



Source: UNCTAD, 2008a.

More worrying still is the fact that most African countries register export concentration levels that are significantly higher than the region's average (table 5). Export concentration fell in only 19 of the 50 countries covered in the table over the period considered.

4. Export destinations

We have seen above that there has been relatively little change in export-to-GDP ratios or in export volumes following trade liberalization. It appears that the geographical patterns of Africa's export destinations have not undergone any great change as a result of trade liberalization either. Figure 8 provides a snapshot of destinations in 1960 and 2006.

The principal destination for African countries' exports is Europe. Countries that are now members of the European Union account for 40 per cent of all exports from African countries and provide by far the largest export market for African products even though their importance has gradually been receding since the same European countries accounted for 66 per cent of Africa's exports in 1960. This trend reflects the gradual loosening of the economic ties that bound African countries to Europe from the time of colonization. Despite the preferential trade agreements between European countries and the African, Caribbean and Pacific (ACP) group of States, African countries have diversified their export markets away from Europe.

The second largest export market for African products is North America, especially the United States. While North America accounted for only 9 per cent of African exports in 1960, it was already then the second-largest export market for African products. This share expanded rapidly in the 1970s, reaching 27 per cent in 1982 before settling at around 15 per cent in the 1990s. The importance of North America as an export market for African countries has grown considerably since 2002, mainly as a result of increased sourcing of oil from Africa (fig. 9), and the implementation of the African Growth and Opportunity Act of 2000. The share of African exports going to North America was 24 per cent in 2006.

More significant was the rise of developing Asia as an important destination for African exports. The share of African exports going to developing countries in Asia had not exceeded 6 per cent between 1960 and 1992, but almost tripled between 1992 and 2006, to 16 per cent. This increase corresponds to the impressive growth performance of China and India and their emergence as major

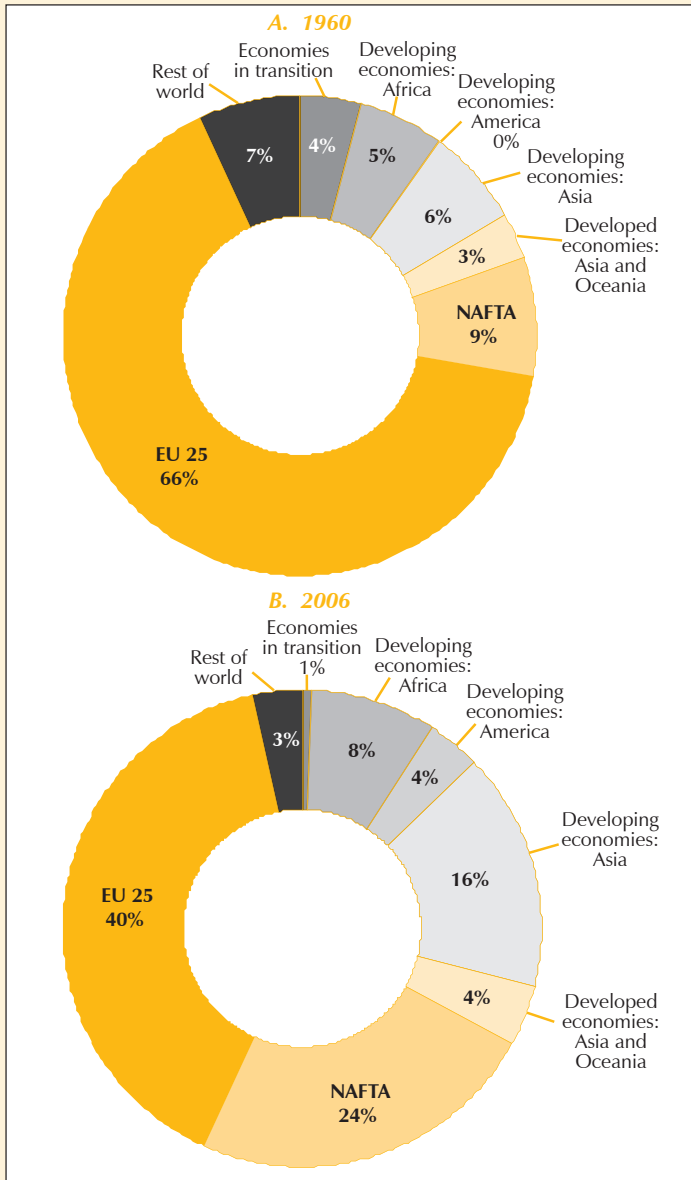
Table 5
Export concentration index in African countries, 1995 and 2006

Country	Export concentration index in 1995	Export concentration index in 2006
Angola	0.90	0.95
Equatorial Guinea	0.56	0.90
Sudan	0.35	0.87
Sao Tome and Principe	0.52	0.87
Congo	0.85	0.87
Nigeria	0.90a	0.85
Gabon	0.81	0.84
Libyan Arab Jamahiriya	0.77	0.80
Guinea-Bissau	0.54	0.75
Mauritania	0.50	0.74
Mali	0.59	0.74
Botswana	..	0.73
Zambia	0.83	0.68
Guinea	0.64	0.66
Seychelles	0.56	0.63
Benin	0.62	0.62
Burundi	0.63	0.61
Algeria	0.53	0.61
Malawi	0.66	0.60
Burkina Faso	0.57	0.58
Mozambique	0.45	0.57
Rwanda	0.46	0.54
Sierra Leone	0.55	0.54
Cameroon	0.33	0.51
Gambia	0.31	0.51
Comoros	0.77	0.48
Cape Verde	0.39	0.48
Niger	0.55	0.47
Central African Republic	0.45	0.47
Lesotho	..	0.47
Ghana	0.44	0.44
Ethiopia	0.65	0.43
Swaziland	..	0.42
Democratic Republic of the Congo	0.50	0.38
Egypt	0.21	0.38
United Republic of Tanzania	0.25	0.36
Côte d'Ivoire	0.27	0.32
Namibia	0.34	0.30
Togo	..	0.29
Mauritius	0.36	0.28
Uganda	0.65	0.25
Senegal	0.29	0.25
Zimbabwe	0.25	0.22
Madagascar	0.28	0.20
Djibouti	0.13	0.19
Kenya	0.23	0.19
Tunisia	0.22	0.19
Eritrea	0.37	0.18
Morocco	0.18	0.16
South Africa	0.27	0.16

Source: UNCTAD, 2008a.

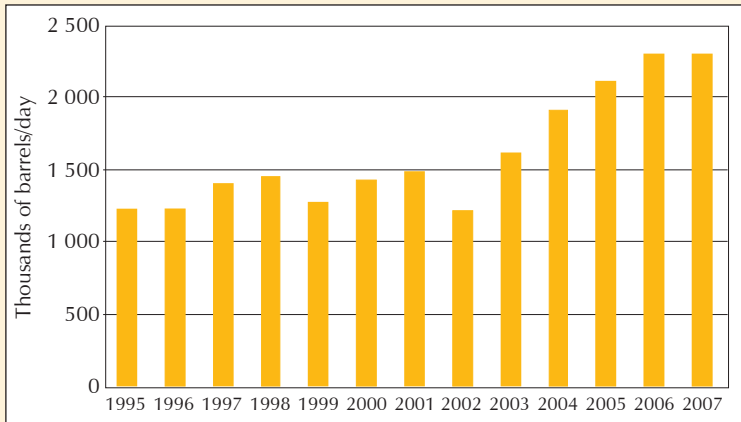
a Figure for 1996.

Figure 8
African export destinations



Source: UNCTAD, 2008a.

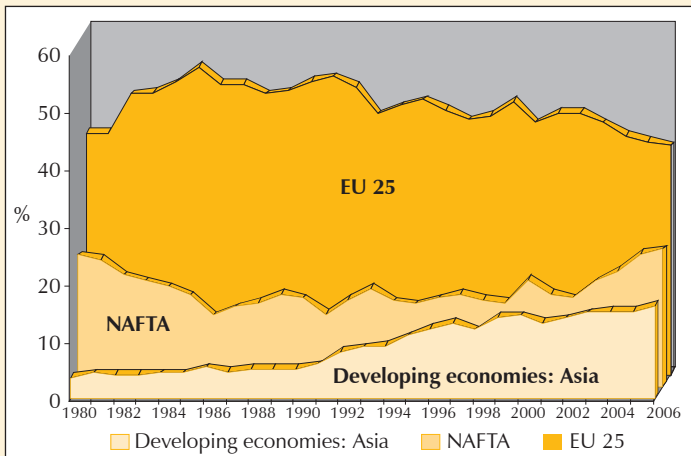
Figure 9
US oil imports from the top three African exporters, 1995–2007^a



Source: United States Energy Information Administration, 2008.

a The top three exporters to the United States in 2007 were Nigeria, Algeria and Angola.

Figure 10
Shares of African exports to top three destinations



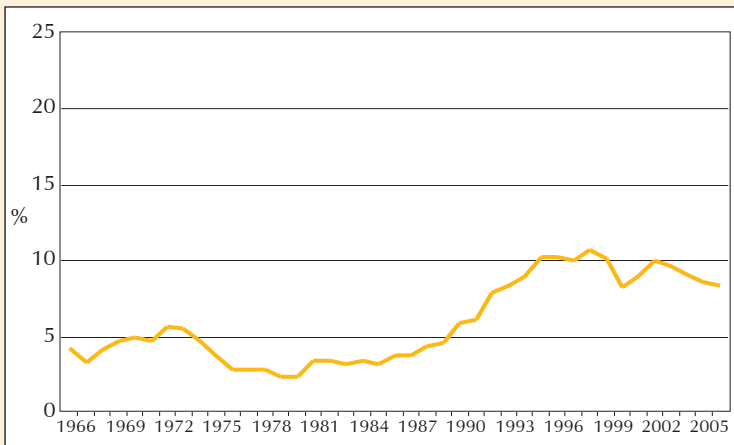
Source: UNCTAD, 2008a.

importers of raw materials. China and India together account for about one tenth of total sub-Saharan African trade and they have made substantial investments in the region. While exact figures are difficult to obtain, the Ministry of Commerce of China estimates that Chinese direct investment in Africa amounted to \$6.6 billion in the period 2000–2006. Data from other sources show a much higher figure of \$15 billion for total Chinese direct investment in Africa in 2005 (Wang, 2007: 11). China's trade with Africa amounted to \$32.1 billion in 2005. Thus, China has emerged as the region's third trading partner after the United States of America (\$60.6 billion) and the European Union (\$56.4 billion), and is forecast to become the continent's largest trading partner before 2010 (Holslag et al., 2007).

Finally, it appears that trade liberalization has had little effect on intra-African trade. Though there was a marked increase in the share of intra-African trade in the 1980s and early 1990s, it has remained essentially stable afterwards (fig. 11). Intra-regional trade accounted for only 8 per cent of total African exports in 2006 — a much lower figure than in other regions. This can be partly explained by tariff cuts, which reduce the preference margins given to other African countries and therefore reduce the incentives for intraregional trade. There are a number

Figure 11

Share of African exports going to Africa, 1966–2006



Source: UNCTAD, 2008a.

of other factors that restrain intra-African trade. First, the products that African countries export tend to be similar in nature, thereby limiting the complementarity of exports. Second, the infrastructure for intra-African trade is often poor, which leads to high transaction costs. And third, despite the many regional agreements in place, these are generally slow to be implemented and there is little private sector involvement in them as compared with their equivalents in Europe, Latin America or Asia. As a result, the share of intra-African trade remains, despite the increases of the 1980s and early 1990s, very low in comparison with intraregional trade in developed regions such as the European Union, where it accounted for 67 per cent of total exports in 2006. It also compares poorly to intraregional trade in Latin America, where it accounted for 16 per cent of exports, and in developing Asia, where it accounted for 46 per cent (UNCTAD, 2008a).

Overall, it appears that the geographical patterns of African exports have changed little following liberalization. The main trends observed, such as the lower share of European countries or the greater importance of North America and developing Asia as export markets, seem to be part of longer-term trends or related to factors other than African trade liberalization.

E. Conclusion

Most African countries now have liberalized trade regimes. The process of liberalization occurred principally in the late 1980s and in the 1990s, and involved the tariffication of non-tariff barriers, cuts in the number and value of tariffs, exchange rate liberalization and the removal of export barriers.

Overall, export performance in African countries following trade liberalization has been disappointing. Indeed, although there has been a positive effect of trade liberalization on exports expressed as a percentage of GDP, this effect is weak and the overall trade balance in African countries has deteriorated since liberalization.

Export performance following trade liberalization can be analysed in more detail by examining trends in values and volumes of exports. Such analysis reveals that, following liberalization, African exports continued to grow at a lower rate than in other regions in volume terms and it is only the rising prices of fuels, minerals and other primary commodities since 2002 that have maintained

African export value growth at a level comparable with that in other developing regions.

Export diversification is very low in Africa. African countries remain principally primary commodity exporters and the dependence of African countries on a small number of export products has increased in the period following liberalization. Many countries in the region are at present less able to withstand price shifts for a few key commodities than they were prior to liberalization.

The main trends in the destination of African exports do not appear to have been strongly affected by African countries' efforts to liberalize trade. Although there has been some diversification in the destinations of African exports, reducing the importance of European countries as export markets, this is part of a long-term trend. The greater importance of Asia as a market for African exports reflects strong growth in that region rather than changes in African countries' trade structure. Recent changes in the share of African exports going to North America, meanwhile, have been driven mainly by trends in oil exports, which are independent of the trade liberalization process.