ECONOMIC DEVELOPMENT IN AFRICA
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EXPORT PERFORMANCE FOLLOWING TRADE LIBERALIZATION:
Some Patterns and Policy Perspectives
Chapter 2

Africa’s Export Performance Following Trade Liberalization: Agriculture

This chapter analyses the evolution of Africa’s international trade in agriculture following the adoption of trade liberalization policies. Considering that one of the objectives of trade liberalization was to shift relative prices and resources in favour of the tradable sector, how has African agriculture — and, in particular, how have African agricultural exports — performed over the period under review?

Two main trade liberalization policies were expected to have a direct positive impact on the agricultural sector and exports. One was to cut high taxation on the sector by aligning producer prices with world prices. The second was to promote the development of private input and output markets (“getting prices right”). As part of this process, agricultural marketing boards were dismantled and subsidies on a range of inputs, such as fertilizers or insecticides, were cut off. The sector was also expected to benefit from macroeconomic policies such as reducing the overvaluation of the exchange rate and providing a more stable macroeconomic environment. Such policies were expected to enable agricultural exporters to capture a higher proportion of the world market price for their products, which would then give them a greater incentive to produce and export more.

A. Agricultural production and exports

The agricultural sector was not spared by the global economic slowdown in the late 1970s, which negatively affected sub-Saharan African economies. Against a background of improved macroeconomic conditions, the sector recovered from this downturn in the mid-1990s. Subsequently, agricultural growth accelerated from 2.3 per cent per annum in the 1980s to 3.8 per cent between 2001 and 2005 (World Bank, 2008b). However, this was hardly reflected in several indicators of the agricultural sector’s performance.

The contribution of agriculture to total output in sub-Saharan Africa has generally stagnated since 1980. The sector’s contribution to GDP in 2006, at
about 19 per cent, was no higher than in 1980. In contrast, the proportion of agriculture in East and South-East Asian economies fell significantly over the same period, owing to the increasing share of manufactures. Thus, sub-Saharan Africa has become the region in the developing world with the highest ratio of agriculture to GDP since 2000 (fig. 12), which reflects the lack of structural transformation.

The value of sub-Saharan African agricultural production remained stable between 1995 and 2000, while the nominal value of its agricultural exports declined slightly from about $16.6 billion to $14.7 billion between 1995 and 2000, before rising to $25.3 billion in 2006 (UNCTAD, 2008b). However, as compared with the significant increases in the value of agricultural exports from Latin America and from East and South-East Asia (fig. 13), the increase in the value of sub-Saharan African agricultural exports following liberalization appears rather modest.

Two factors underpin this modest increase in value of sub-Saharan African agricultural exports. First, the recovery in agricultural production since 2000 does not appear to have been widespread. Although there has been some expansion in agricultural exports from sub-Saharan Africa, the region’s share of global exports has remained fairly small, with agricultural exports becoming concentrated in a small number of countries. Over the period 2002–2005, just three countries accounted for about 56 per cent of total sub-Saharan African agricultural exports, the largest exporter being South Africa, followed by Côte d’Ivoire and Ghana. Second, sub-Saharan Africa continues to depend on traditional non-fuel primary commodity exports such as coffee, cotton, cocoa, tobacco, tea and sugar. Traditional commodities were the top exports of the region in value terms in 2000: this situation had not changed in 2005, although there were some changes in the rankings — only cotton was in the top three in both years — and, more importantly, in 2005 fewer countries exported the top four products (see table 6).

There was a steady increase in the export volumes of these traditional commodities from the mid-1990s onwards. The fact that this did not translate into a higher value of exports until after 2000 reflects the low prices of these commodities on the world market at the time. These commodities were affected by high price volatility and, until about 2002, by falling prices. During the 1970s, 1980s and 1990s, the volatility in terms of trade for sub-Saharan African exports was about twice as high as for East Asian exports and nearly four times as high as for exports from industrial countries (UNCTAD, 2003a).
This continuing dependence on traditional commodity exports also reflects the region’s inability to tap fully into the international trade in “market-dynamic” (non-traditional) commodities, such as horticulture and processed foods. These products are highly income-elastic, with lower rates of protection in industrialized and large developing countries (UNCTAD, 2003a).

In the period 2000–2005, no African country featured among the world’s 20 leading exporters of processed food, although these include countries such as Argentina, Brazil, Mexico, India, Indonesia and Thailand. South Africa, the largest African exporter of these products, had a global market share of less than 1 per cent. Mauritius, the second-largest exporter of processed products in sub-Saharan Africa, came a distant 59th in the global rankings, with only a 0.2 per cent market share. In the case of semi-processed products, South Africa was the only sub-Saharan African country among the top 20 exporters in the period 2000–2005. There were no sub-Saharan African countries at all among the leading exporters of processed products in that period (OECD, 2008a).
Nevertheless, Africa has made some progress in diversifying its international agricultural trade, although progress has been slow. A few countries have made inroads into the international trade in horticultural products, but only South Africa made it to the list of the top 20 horticultural exporters in 2000–2005, with an average market share of 2.3 per cent. Morocco, which was among the top 20 exporters in 1985–1990, had dropped out of the group in 2000–2005, with its market share declining to just over 1 per cent. Two other African countries, Côte d’Ivoire and Kenya, export considerable amounts of horticultural products, but each has a share of less than 1 per cent of the global market (OECD, 2008a). In recent years, a few countries, including Ethiopia, Ghana, Uganda and Zambia, have increased their exports of these products, but the volumes are generally small (except possibly in the case of Ghana) as compared with the volumes of their traditional export commodities.
Africa’s share in world agricultural imports decreased steadily from 5.4 per cent in 1985 to 3.2 per cent in 2006. This could be explained, in part, by the fact that global trade in agriculture is no longer dominated by the traditional bulk commodities. These are the least dynamic in terms of export growth, and their share in total agricultural exports has declined substantially. Most of the developing countries that remained commodity-dependent in 2003–2005 (two-thirds of which are in Africa) have thus been struggling to defend their historical positions in the international market. In the last 25 years, trade in horticulture and processed food has grown at double the rate of traditional bulk commodities. Thus, these products are now comparable to non-agricultural products in terms of export growth. Indeed, the continent’s potential in commercial agriculture remains largely untapped, with only a fledgling agribusiness sector in most countries (OECD, 2008a).

The substantial increases in the value of agricultural exports from East and South-East Asia and from Latin America over the period 1995–2006 reflect a move towards high-value exports. Moreover, significant increases in export volumes have been achieved on the back of increased productivity in traditional commodity exports as a result of intensive methods of farming. The technological advances that led to improved productivity in the 1970s and 1980s by some old agricultural exporters in Latin America and East Asia, and by some new exporters in Asia, largely bypassed sub-Saharan Africa. The region has not benefited from the productivity gains achieved for a variety of crops, including corn, soya beans, sugar and rice. These gains, coupled with farm mechanization, have resulted in significant increases in production by some commodity-exporting countries, such as Brazil and Viet Nam. Some of these countries have emerged as more efficient producers than African countries in traditional agricultural commodities such as cocoa (Malaysia) or coffee (Indonesia and Viet Nam) (UNCTAD, 2003a; see also Havnevik et al., 2007).

Table 6
Sub-Saharan Africa: Top four African exports, 2000 and 2005

| Rank | Product | 2000 | | 2005 | | |
|------|---------|------|---|------|---|
|      | Product | No. of countries | Value ($ million) | Percentage of total exports | Product | No. of countries | Value ($ million) | Percentage of total exports |
| 1    | Coffee  | 22   | 788 | 8.6 | Cocoa | 11   | 2 500 | 16.6 |
| 2    | Cotton  | 22   | 688 | 7.8 | Cotton | 19   | 779 | 5.2 |
| 3    | Tobacco | 13   | 628 | 7.1 | Sugar  | 17   | 726 | .. |
| 4    | Tea     | 22   | 614 | 7.0 | Wine   | 18   | 603 | .. |

Source: Organization for Economic Cooperation and Development (OECD, 2008a, p.31).
The above factors appear to have contributed to the steady decline in the proportion of total agricultural production traded by sub-Saharan Africa from around 27 per cent of production in 1995 to just below 20 per cent a decade later. Of the other developing regions, Latin America recorded a sizeable increase in the proportion of its exported agricultural output from under half to about two thirds of its total agricultural output. However, there was no change in the proportion of agricultural output exported by the other two developing regions (fig. 14).

It is apparent from the discussion above that there have been some positive developments in Africa’s international trade in agriculture following trade liberalization. First, there have been some increases in African exports, though this was not reflected in the value of the region’s exports until after 2000 because of low commodity prices before then. Second, there has been some diversification towards horticultural exports in several countries. However, African countries have remained by and large very small players in this market. Africa’s agricultural

\[\text{Figure 14} \]
\[\text{Proportion of agricultural output exported}\]

\[
\begin{array}{cccccccccccc}
\text{1995} & \text{1996} & \text{1997} & \text{1998} & \text{1999} & \text{2000} & \text{2001} & \text{2002} & \text{2003} & \text{2004} & \text{2005} & \text{2006} \\
\hline
\text{Sub-Saharan Africa} & \text{South Asia} & \text{Latin America} & \text{East and South-East Asia} \\
\end{array}
\]

Source: UNCTAD, 2008a.
exports have thus remained overwhelmingly concentrated in traditional bulk commodity exports, which have also become concentrated in a smaller number of countries.

Furthermore, the contribution of agricultural exports to total output does not appear to have undergone any significant change over the period under review. Of the 38 African countries for which data are available for at least two decades, only five recorded agricultural exports in excess of one fifth of GDP (Côte d’Ivoire, Ghana, Malawi, Seychelles and Swaziland). Seychelles recorded substantial growth in its agricultural exports in the 1990s and, especially, in 2000–2006. The remaining four countries have been consistently high exporters of agricultural commodities since the 1980s. Two countries, Benin and Madagascar, have also increased their agricultural exports significantly since the 1980s, with exports exceeding 10 per cent of GDP in 2000–2006 (World Bank, 2007).

B. Explaining agricultural export performance

1. Role of trade liberalization

As mentioned earlier, because of its impact on relative factor prices, trade liberalization was expected to lead to increased production of tradables, that is, increased exports and changes in the composition of such exports. Given the relative importance of agriculture in African countries, one would therefore expect an increase in agricultural exports as well as some diversification into new agricultural exports. One would also expect some diversification into manufactures (see chap. 3 below).

Trade liberalization has created a price incentive structure which has contributed to some of the positive developments noted above. Nevertheless, a closer examination of some of the more successful agricultural exporters reveals that the main factors that underlie their performance, with the possible exception of the devaluation of the CFA franc, go beyond trade liberalization and are the result of deliberate efforts by Governments to develop the agricultural sector.

The consistently high agricultural exports of Côte d’Ivoire appear to be the result of huge investments made in the agricultural sector in the 1960s as part of the country’s development strategy, which was anchored on cash crops (coffee, cocoa and timber) and later reinforced by secondary agricultural export crops
such as bananas and pineapples. Furthermore, after 1965, the Government followed a crop-diversification policy designed, inter alia, to increase total export receipts and promote a dynamic agro-industrial sector based on raw materials from local commercial crops. This policy led to the introduction of new crops such as soya beans and cashew nuts, and to the transfer of some crops from one region to another in order to improve the quality and productivity of commercial crops already in production, including pineapples and rubber (Traoré, 1990).

Ghana’s performance could be explained by the somewhat ad hoc, but successful, programmes to promote non-traditional agricultural exports such as pineapples, cashew nuts, pepper and shea nuts. While there were some remarkable increases in cocoa exports in the 1990s after the steep declines experienced in the 1980s, these did not come from new planting so much as from the re-routing back into Ghana of cocoa that had previously been smuggled to Côte d’Ivoire (Herbst, 1993). Successful resistance by successive Governments to pressure from donors to fully privatize the cocoa marketing system means that the Cocoa Marketing Board still provides limited support to the cocoa sector. The increases in Ghana’s cocoa exports since 2000 are due not only to some new plantings in the 1990s but also to a government programme to supply farmers with inputs (fertilizers, insecticides and spraying guns) through the Cocoa Marketing Board.

The devaluation of the CFA franc in 1994 helped to improve the competitiveness of all exports from the CFA franc zone. Some country-specific factors also helped to boost agricultural exports. For example, by the 1990s Benin had become politically stable, and by the end of the decade financial sector crises sparked by the collapse of its main commercial banks had been successfully resolved. These factors, coupled with an increased area devoted to cotton crops and the joint implementation in 2002 of the Cotton Sector Reform Project by the Government and the World Bank, have helped to sustain Benin’s cotton exports in recent years.8

The recent improvements in maize production and output in Malawi since the drought of 2005 have been attributed mainly to the Government’s fertilizer subsidy programme. According to government estimates, the 2007 maize crop harvest was about 70 per cent higher than the average for the past five years. Malawi has thus become a regional exporter of maize.9 However, sustained improvements in agricultural productivity and output would require a more comprehensive policy package that also addresses the various constraints on the agricultural supply response.
Overall, there have been some positive, though limited, developments in African agriculture following trade liberalization. The present state of African agriculture has come under greater scrutiny in recent months because of the food and fuel crises, which have eroded the gains accruing to exporters of traditional commodities as a result of the recent high prices for these commodities. Moreover, the large increases in food prices in recent years have led to a global food crisis of which low-income food-deficit countries (LIFDCs) are the greatest victims (see box 2). The fact that most LIFDCs are in Africa has raised serious questions about the performance of the agricultural sector in the aftermath of trade liberalization. The continuing weak performance of African agriculture and agricultural exports is investigated in the next section.

2. Weak supply response

Advocates of trade liberalization believed that agricultural exports were constrained by misguided policies, such as the high taxation of agriculture, to promote import substitution industrialization. Hence, it was assumed that simply removing these constraints, inter alia, by aligning producer prices with world prices while promoting the development of private input and output markets (“getting prices right”), would provide the right incentives for increased production of agricultural exports. The sector was thus expected to benefit from macroeconomic policies to reduce the overvaluation of the exchange rate, and from the dismantling of marketing boards and creation of a more stable macroeconomic environment.

This diagnosis, however, represents only a partial understanding of the problem, and takes no account of the structural problems that plague the agricultural sector in Africa. Thus, while trade liberalization addressed policy-induced barriers to trade, it was not integrated with sectoral policies that could have addressed supply-side response issues. These problems have prevented the region from attaining its full potential in agricultural exports even within the context of improved macroeconomic fundamentals.

The agricultural sector is by no means homogenous in all African countries and across different agro-ecological zones, and a myriad of agricultural production relations and institutions can be found all over sub-Saharan Africa. However, it is commonly agreed that the response of agricultural production to price incentives is determined by how structural and institutional factors influence not only productivity but also profitability. These factors include the socio-economic
Box 2. Food price increases and low-income net food-deficit countries

World food prices have doubled in the past three years; in the last year alone (April 2007 to April 2008) they have increased by about 85 per cent. This hike in world prices of nearly all major food and feed commodities has had a ripple effect through the food value and supply chain. This has contributed to food price inflation and increased food insecurity, especially in poor countries. In addition, the combination of higher prices for fuels and food has had a negative effect on the trade balance of poor countries. As illustrated in the table below, the food import bills of low-income food-deficit countries (LIFDCs) have increased considerably. LIFDCs in Asia and Africa have to contend with the greatest increases in cereal import bills in 2007–2008; these are forecast to increase to about three times their level in 2002–2003. The price of rice is forecast to increase more than three times over the same period, and that of wheat almost three times.

Cereal import bills in low-income food-deficit countries
by region and type
($ millions)

<table>
<thead>
<tr>
<th></th>
<th>2002/03</th>
<th>2003/04</th>
<th>2004/05</th>
<th>2005/06</th>
<th>2006/07</th>
<th>2007/08</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Estimate</td>
<td>Forecast</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Africa</td>
<td>6 501</td>
<td>7 088</td>
<td>8 372</td>
<td>8 369</td>
<td>10 297</td>
<td>17 892</td>
</tr>
<tr>
<td>Asia</td>
<td>7 014</td>
<td>8 050</td>
<td>9 767</td>
<td>8 900</td>
<td>13 498</td>
<td>19 277</td>
</tr>
<tr>
<td>Latin America</td>
<td>308</td>
<td>380</td>
<td>407</td>
<td>468</td>
<td>594</td>
<td>898</td>
</tr>
<tr>
<td>and Caribbean</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oceania</td>
<td>69</td>
<td>76</td>
<td>78</td>
<td>82</td>
<td>100</td>
<td>164</td>
</tr>
<tr>
<td>Europe</td>
<td>133</td>
<td>198</td>
<td>201</td>
<td>209</td>
<td>260</td>
<td>464</td>
</tr>
<tr>
<td>Wheat</td>
<td>7 762</td>
<td>8 802</td>
<td>10 814</td>
<td>10 589</td>
<td>14 083</td>
<td>22 705</td>
</tr>
<tr>
<td>Coarse grains</td>
<td>3 281</td>
<td>3 300</td>
<td>3 395</td>
<td>3 099</td>
<td>4 522</td>
<td>6 097</td>
</tr>
<tr>
<td>Rice</td>
<td>2 982</td>
<td>3 689</td>
<td>4 616</td>
<td>4 340</td>
<td>6 144</td>
<td>9 894</td>
</tr>
</tbody>
</table>

Source: FAO, 2008b.

Many African countries have become highly dependent on cereal imports, particularly in the last two decades, to meet their consumption needs. Thus, the hikes in international prices have pushed up domestic prices of bread and other basic food items. Indeed, all over Africa, Governments have had to implement a variety of measures to ensure that the full impact of higher international prices for cereals is not transmitted to the prices of basic food items at home. These include a considerable rise in wheat flour subsidies (Egypt and Senegal), suspension of import tariffs (Côte d’Ivoire, Ethiopia, Liberia, Senegal and the United Republic of Tanzania), and export bans on domestically produced cereals such as maize (the United Republic of Tanzania and Zambia). A few countries (Malawi and Zambia) are implementing large input subsidy schemes for fertilizer and quality seeds in order to increase cereal production domestically. Clearly, in the short term, some African counties need emergency relief to enable them to cope with escalations in food prices and to meet the food security needs of their populations. In the medium to long term, addressing the structural factors that impede efficient agricultural production in those countries with the right agro-ecological conditions is a sine qua non for meeting a larger proportion of their food
requirements domestically. Indeed, many African countries at the time of independence, some 50 years ago, were net food-exporting countries. Most of these countries have become net food-importers over the last two decades, partly as a result of under-investment in agriculture, including in research and development and extension services, and partly as a result of the abolition of State institutions (such as crop marketing boards) that provided support to the sector. Agricultural subsidies in developed market economies have also led to cheap imports of food in many countries, thereby undermining domestic production. African countries will need to diversify their production structure and exports as a means of reducing their vulnerability to fluctuations in commodity prices and worsening terms of trade (see chap. 5).

Source: Food and Agriculture Organization of the United Nations, Crop prospects and food situation (June/July 2008); and UNCTAD 2008b, “The changing face of commodities in the twenty-first century”.

a Low-income food-deficit countries (LIFDCs) include food-deficit countries with per capita annual income below the level used by the World Bank to determine eligibility for International Development Association assistance ($1,575 in 2004). In accordance with the guidelines and criteria agreed by the Commission for Africa, these countries should be given priority in the allocation of food aid. All African countries, except five, are LIFDCs: the exceptions are Algeria, Gabon, the Libyan Arab Jamahiriya, Namibia and South Africa.

structures and physical infrastructure that impede the efficient functioning of rural and urban markets. Other factors that determine the response of the agricultural sector to policy incentives are (a) the weak agricultural research and extension system, (b) low productivity due to reliance on rudimentary agricultural technology, (c) the paucity of credit and agricultural inputs (including land and labour), (d) the gender division of labour, (e) the limited supply of basic consumer goods, and (f) high levels of risk. Within this context, as discussed below, the elasticity of total farm output and agricultural exports to policy changes, including changes in price, could hardly be expected to be very large, particularly in the short to medium term.

Indeed, empirical evidence suggests that aggregate supply response of agricultural production to price incentives is much weaker in low-income countries because of these non-price constraints (UNCTAD, 1997a; 1998a). However, while there is some consensus that these non-price factors constrain agricultural production and productivity, there is no agreement on how they could be removed. Also, there is no consensus on whether there are trade-offs to be made between policies that address these and policies that support the attainment of the “right prices”.
(a) **Short-run supply response**

One channel for the short-run supply response of agricultural production to the price incentives created by policy reforms is the “vent for surplus” effect, which occurs as idle land is brought under cultivation, coupled with increased utilization of labour in response to price incentives, or greater availability of incentive goods. This was the experience of countries such as Ghana, Madagascar, Mozambique and the United Republic of Tanzania at the beginning of their trade liberalization programmes. This, however, is essentially a one-off response as there are limits to the availability of unused resources, such as land, the use of which is governed by a traditional tenure system that may not respond immediately to the demands for more land. Also, complex gender divisions of labour in most farming communities determine how much female labour is allocated to which tasks or crops, and how income from farming activities is distributed within the household.

A second channel for short-run supply response is the reallocation of resources in order to achieve efficiency gains, which depends on three factors. The first is the level of capitalization of farm operations and the level of flexibility this grants households to reorient production. The second is the commitment of households to meet part of their subsistence needs through their own production, which in turn depends on the level of efficiency of rural food markets. And the third is the issue of gender relationships, which determine the flexibility with which households can reallocate resources.

Agricultural intensification is the third channel for a short-run positive supply response in agricultural production. This could be labour-based or a combination of additional labour and other variable inputs, such as organic and chemical fertilizer. In most African countries, however, sustainable intensification requires additional capital. As such, it depends on the assessment of risk, credit availability, skills and appropriate intensification packages. One observable trend in African countries during policy reform was the decline, for a variety of reasons, in the use of purchased inputs such as fertilizer. The removal of subsidies led to sharp price rises, and the dismantling of marketing boards resulted in a breakdown of the fertilizer distribution system and a reduction in credit availability. The marketing boards not only supplied inputs to farmers in smaller quantities and in remote areas, they also helped to provide seasonal credit to poor farmers against potential crops as collateral. The system completely broke down as the private sector was too weak in several countries to take on these functions as expected.
In addition, it is possible that the decaying state of rural infrastructure did not make these functions profitable enough to attract private actors.

In effect, policy reforms such as removing price controls, cutting or eliminating fertilizer subsidies and privatization did help to improve fiscal discipline in most African countries. However, their effect on agricultural production and exports has been far from benign.\(^{13}\)

(b) Investment and productivity growth

Even if the structural constraints to short-run agricultural supply response are addressed successfully, long-run trends in productivity and output and in export performance depend on the pace of investment and technological progress. In predominantly agricultural economies, the major source of investment funding for both agriculture and other sectors is the net agricultural surplus.\(^ {14}\) However, African agriculture is so severely undercapitalized, with many farmers trapped in a low-productivity and subsistence cycle of poverty, that the injection of external resources is a sine qua non for increasing agricultural productivity and growth.

Credit constraints

There is conflicting evidence on whether insecure land titles, stemming from the myriad African land-tenure systems, promote or discourage new investments to improve land.\(^ {15}\) However, it is generally agreed that insecure titles deny farmers the right to use land as collateral to secure loans from the banking system to finance new investments. Informal money-lenders often provide seasonal loans under various arrangements, mostly tied to the purchase of crops and at usurious rates, which are not suitable for long-term agricultural investments. In the past, small farmers had access to credit provided by marketing boards or by local financial institutions under government direction, though this by no means reached all such farmers. These sources all but disappeared during the financial sector reforms implemented as part of market-oriented reform. Development banks, some of which were insolvent, were closed down. Such reforms were unable to increase the volume of savings or access to credit in rural areas, where commercial bank branches were closed down (UNCTAD, 1997b, Brownbridge and Gayi, 1999). With reduced credit from the formal system and little or no net agricultural surplus, both short- and long-term investment in agriculture appear to have suffered.
Public investment

The reforms have created opportunities for private investments in agricultural enterprises, but the profitability of these investments remains very much dependent on public investment in infrastructure. Improvements in rural transportation enhance the functioning of product and input markets and increase real returns. Investments in drinking water, electricity, health and educational facilities improve the overall quality of rural life. They also boost agricultural productivity and reduce the number of farming work days lost through ill-health. Reduced public investment during the period of reform and the resulting weak infrastructure were an obstacle to the development of more efficient markets. In addition, a general dearth of social amenities meant the agricultural sector could not benefit from the externalities accruing from the opportunities created by trade liberalization and thereby increase exports.

In sub-Saharan Africa, there are also problems with agricultural research, which determines the rate of technological change. The small size of countries and research stations, dispersion and high staff turnover have all combined to prevent the attainment of a critical mass of scientific and technical staff. This lack of a critical mass has been attributed in part to problems with the allocation of agricultural budgets, which did not reflect the right balance in the distribution of staff between scientific, technical and administrative duties. Most often the budgets of national agricultural research systems were also skewed towards personnel to the detriment of equipment and other operational costs (Diouf, 1989). The outcome is that, with the notable exception of maize (and more recently cassava), most of sub-Saharan Africa has no immediately applicable crop technology that might, with adequate price incentives, substantially increase the profitability of investments in agriculture.

A reduction in donor support for agriculture has also meant that there are fewer resources to devote to addressing the problems of the sector. Overall, donor support for agriculture has declined steadily from a peak of $8 billion in the early 1980s to $3.4 billion in 2004. This decline is evident in both multilateral and bilateral support, and also in relative terms. For example, the proportion of total official development assistance (ODA) going to agriculture declined from a peak of 16.9 per cent in 1982 to just 3.5 per cent in 2004. The equivalent figures for ODA from Development Assistance Committee (DAC) countries were 13 per cent and 3 per cent respectively (fig. 15). World Bank lending to agriculture in Africa fell sharply from $419 million in 1991 to $123
It appears that the decline in ODA to agriculture was often translated into a decline in public investment expenditure in agriculture in sub-Saharan Africa, since in many countries in the region such expenditure was externally financed. Public investment expenditure in agriculture took the form of the integrated rural development programmes that were fashionable in the late 1960s and early 1970s, but that have since been on the decline. Evidence from 19 sub-Saharan African countries shows that while real agricultural expenditures grew rapidly in the 1960s, and moderately in the 1970s, they stagnated in the 1980s and early 1990s (UNCTAD, 1998a). Indeed, it appears that the proportion of government expenditure going to agriculture has declined in several African countries during...
the period of market-oriented reforms in the past two decades (OECD, 2008a). In one of the earliest reforming countries, Ghana, for instance, the proportion of the total government budget devoted to agriculture fell from 10 per cent in 1983 to just 3.5 per cent in 1988.\textsuperscript{16} In Burundi, fiscal reforms, including the privatization of State-owned financial institutions, led to a drastic reduction in the already low level of credit to the agricultural sector in favour of commerce or trading. Agricultural credit fell from 2.5 per cent of total domestic credit to under 1 per cent between 1980–1994 and 2003–2005 (Nzobonimpa et al., 2006).

\textbf{Low yields}

Considering all the indicators of agricultural productivity and the use of modern inputs, it comes as no surprise that African agriculture lags behind agriculture in other developing regions. In 2004, for example, the Food and Agriculture Organization of the United Nations (FAO) reported that, although Africa had the highest agricultural area per capita in the developing world, it had, relatively speaking, the smallest irrigated area (3.7 per cent)\textsuperscript{17} and lowest fertilizer consumption (12.6 kg per hectare of arable land). These figures are well below the developing-country averages of 22.7 per cent and 109.0 kg respectively (Gayi, 2007: table 13.7).

Only a quarter of the total crop area of sub-Saharan Africa is planted with modern crop varieties. Asia adopted these varieties as far back as the 1960s, and about 80 per cent of South and East Asia’s crop area is under these varieties four decades later. The use of chemical fertilizer has expanded in all regions of the developing world except sub-Saharan Africa. Considering that over the past three decades higher fertilizer use accounted for at least 20 per cent of the growth in developing country agriculture (World Bank, 2008b),\textsuperscript{18} one can understand the slow agricultural growth in sub-Saharan Africa, where since 1984 the cereal yield has stagnated at around 1,000 kg per hectare of arable land (fig. 16).

Asia’s productivity in the cultivation of cocoa and coffee — two of Africa’s main traditional commodity exports — was much higher than that of Africa over the period 1961–2005. The gap between yields in the two regions increased noticeably in the last decade (figs. 17 and 18). However, for reasons that are not immediately apparent, tea yields were consistently higher in Africa than in Asia over the same period (fig. 19). It would thus appear that there is no intrinsic reason why Africa should be trapped in a low productivity cycle for other agricultural exports. Africa could attain levels of productivity comparable to
those of other developing regions if there were the will and resources to address the problem.

It would appear that the increase in agricultural production in Africa noted earlier is due to better utilization of existing resources rather than to increases in productivity or investment. Higher agricultural production also coincided with the recovery in resource inflows and imports. Trade liberalization, and in particular the reduction in overvaluation of the exchange rate, increased incentives to produce for export and reduced the shortages of basic consumer (incentive) goods in rural areas (UNCTAD, 1998a). However, trade liberalization was not complemented by policies to address the key constraints on investment and productivity, which are crucial for the long-term performance of the agricultural sector.

The supply response in agriculture and exports after trade liberalization would have been much higher if trade liberalization had incorporated a complementary...
**Figure 17**

Cocoa beans yield (kg/ha) in Africa and Asia, 1961–2006

![Cocoa beans yield graph](image)

*Source: FAO, 2008a.*

**Figure 18**

Coffee (green) yield (kg/ha) in Africa and Asia, 1961–2006

![Coffee yield graph](image)

*Source: FAO, 2008a.*
policy package to address the structural constraints on agriculture. Consequently, much of African agriculture has not experienced the structural transformation that took place in other developing regions in the production of traditional bulk agricultural commodities and in international horticulture and processed food markets. Paradoxically, while developments in the global markets for the latter have opened up new business opportunities for African countries, it has also increased the competitive pressures on them in their efforts to respond to these opportunities. The next section explores some of these external constraints on the participation of African agricultural producers in the international trade in new market-dynamic agricultural products.

3. External constraints

(a) Market access

The majority of African countries benefit from preferential market access schemes of various types. The least developed countries (LDCs) and other low-
income African countries benefit in particular from two such schemes in their main export markets: the African Growth and Opportunity Act of the United States, and the Everything But Arms initiative of the European Union. The ACP group of States also enjoys preferential market access to the European Union under the Cotonou Agreement, which is in the process of being replaced by economic partnership agreements.

However, many agricultural products face tariff peaks and tariff escalation (higher tariffs on processed products), which discourage diversification into higher value-added products (McCalla and Nash, 2007). Thus, African countries may yet encounter market access problems in trying to expand into higher value-added products. This highlights how important it is to take account of the particular circumstances in a country before generalizing about the market access conditions for African countries.

Africa faces lower (by 0.3 per cent) average duties than the rest of the world and therefore enjoys good market access. However, this is mainly because its main exports of oil, gas and mineral products or commodities are not highly taxed around the world. Within Africa, those countries that specialize in certain agricultural exports (e.g. meat, milk, sugar or some cereals) are penalized just like those that export to highly protected markets. Average tariffs on agricultural products are much higher than those on manufactures (McCalla and Nash, 2007), and international trade in agriculture is one of the items on the WTO “built-in agenda” for which negotiations are still ongoing. Even the high level of tariffs on agricultural products understates the degree of protection in the trade regimes of developed countries, where almost 30 per cent of agricultural production is afforded high levels of support through NTMs such as export subsidies and tariff rate quotas (McCalla and Nash, 2007). Agricultural producers in the European Union and the United States, for example, continue to enjoy subsidies, which depress world prices and dampen the incentives to increase agricultural production and exports in poor African countries. This contributes to the loss of export revenue for those countries that export products such as cotton that are subsidized in those markets.

The Doha Work Programme has the long-term objective of establishing a fair and market-oriented trading system, including correcting and preventing restrictions and distortions in world agricultural markets. The comprehensive negotiations envisaged in the work programme are aimed at, inter alia, “substantial improvements in market access; reductions of, with a view to
phasing out, all forms of export subsidies; and substantial reductions in trade-
distorting domestic support” (WTO, 2001). Three decisions on agriculture were
taken at the Hong Kong WTO Ministerial Meeting in 2005. First, export subsidies
will end by 2013. Second, developing countries can themselves designate
some products as “special products” for which tariff reductions will not be
very stringent. And, third, developing countries can retain their permissible de
minimis level of domestic subsidy (WTO, 2005). These decisions undoubtedly
represent progress in the agricultural negotiations, but some observers have
pointed out that they amount to no more than marginal gains for developing
countries, for a variety of reasons. First, the ministerial declaration does not call
for the elimination of domestic subsidies in major developed countries. Nor does
it envisage curbing or effectively disciplining the “green box” subsidy of major
developed countries (Das, 2006; Sharma, 2006). And problems related to the
formulas for cutting tariffs and subsidies, the so-called “core modalities”, and the
treatment of sensitive products were not resolved (Heydon, 2006). It should be
noted, however, that the European Union recently announced plans to review
its Common Agricultural Policy. It can only be hoped that this review will reduce
the trade-distorting subsidies that at present tend to limit export opportunities
for African countries in some temperate agricultural products.

In addition to these concerns over progress in agricultural trade liberalization,
Africa still faces market access problems in the form of NTMs that are deployed
as non-tariff barriers. African exports are subject to increasingly stringent
standards under the Agreement on the Application of Sanitary and Phytosanitary
Measures and the Agreement on Technical Barriers to Trade. This has given rise
to concerns about these agreements at two levels.

First, the misuse of these requirements and contingency protectionist regimes
(e.g. anti-dumping) as non-tariff barriers results in losses of export revenue for
some African countries. In the late 1990s, European countries banned fish from
Kenya, Mozambique, Uganda and the United Republic of Tanzania because of
concerns over sanitary standards and control systems. Potential revenue losses
for Uganda were estimated at $36.9 million, while fishermen in the United
Republic of Tanzania dependent on European Union sales were reckoned to
have lost about 80 per cent of their income (Mutume, 2006; see also UNCTAD,
1998b). The Commission for Africa has argued that if the European Union were
to apply international standards on pesticides, instead of its own more restrictive
standards, to bananas, annual exports of bananas from Africa could increase
by $400 million. The World Bank has estimated that the annual cost to African
exporters of cereals, fruit, vegetables and nuts of complying with stricter European Union requirements on aflatoxins rather than with those of the Joint FAO/WHO Expert Committee on Food Additives is about $670 million (Mutume, 2006).

Second, several African countries do not have the technical capacity or resources to comply with the required standards. For example, Uganda would need to spend about $300 million to upgrade its honey-processing plants to comply with European Union standards on honey imports, and Kenyan farmers would have to spend 10 times more than they do now to comply with European Union standards on agricultural imports (Mutume, 2006).

Building the necessary laboratory and managerial capacity to meet the standards relating to technical barriers to trade and sanitary and phytosanitary measures in export markets should therefore be a prime issue for technical assistance programmes directed at trade and trade-related infrastructure of Africa countries. Ongoing programmes in which UNCTAD is a partner should therefore be encouraged to undertake such capacity-building projects. These programmes include the Joint Integrated Technical Assistance Programme for Selected Least Developed and Other African Countries (JITAP) (International Trade Centre), and the enhanced Integrated Framework for Trade-related Technical Assistance to Least Developed Countries. Such activities should also be prioritized within the framework of Aid for Trade capacity-building programmes.

(b) Competitive pressures in the global trading system

The policy lacunae with respect to agriculture discussed above have been exacerbated by recent developments in international trade for agricultural commodities. Marketing and distribution channels are now increasingly dominated by supermarkets in the context of global consumption patterns and new demands linked to production, technology, and health and safety concerns over food. The health and safety concerns over food underscore the need for traceability, which has in turn reinforced the dominance of global commodity market chains or global value chains.

The tightening of demands associated with participation in global value chains has compounded the challenges faced by Africa in its efforts to expand new income-elastic agricultural exports. The asymmetrical nature of power in global value chains results in an unequal distribution of total incomes. The producer countries do not have much power, as farming is highly fragmented
and the abolition of marketing boards (under adjustment programmes) reduced the capacity of farmers to raise their share of value chain rents. At the other end of the chain, importers, roasters and retailers compete for a share of value rents, while ensuring that few of these rents are passed on to the farmer, producer-country intermediaries or Governments (Fitter and Kaplinsky, 2001; see also Gibbon and Ponte, 2005). Those who control critical points along the chain, own established brand names or have access to shelf space in supermarkets make most of the profits in global value chains.

Participation in networks is therefore an important requirement for accessing developed-country markets. In order to gain competitive advantage in global markets, there is now an increased premium on accurate information, timely delivery and packaging, which creates entry barriers to new suppliers such as those from Africa. Also, Africa has been slow to tap into the cheaper finance and efficient logistics which, along with increased capital resources and skills, are currently vital for effective competition and for participation in global value chains in particular and international trade in general. Considering the weaknesses of Africa’s private sector, underdeveloped and unreliable transport and communication networks and weak institutions, there is little evidence that this enormous competitive disadvantage will be overcome in the foreseeable future (UNCTAD, 2003a; Havnevik et al., 2007)

C. Conclusion

This analysis of the performance of agricultural exports in Africa suggests that the positive developments following trade liberalization are limited, particularly in comparison with other developing regions. This is, in part, because trade liberalization lacked complementary policies to address the incentives and the structural and institutional constraints that are most critical for enhancing agricultural productivity, output and exports. These constraints have persisted and limited the positive response of agricultural exports to the new incentive framework created by trade liberalization. Production and marketing costs increased during liberalization, with the removal of subsidies and currency devaluations, while the dissolution of marketing boards added price risks to the uncertainties of rain-fed agriculture. The consequence is that much of Africa continues to be dependent on traditional bulk agricultural commodities for a major share of its export earnings. Paradoxically, African countries have been losing market share to other developing countries even in exports of these commodities.
Africa has begun to export new market-dynamic agricultural products, but in volumes that are small in relation to the continent’s potential in the markets for them. The private sector and private-public partnerships are critical in exploiting the opportunities in these markets, but there are very few African countries where the private sector is sufficiently developed to be able to take the lead in gaining access to global value chains and in penetrating the markets for these products. Thus, strengthening the capacities of African States will be crucial, particularly in the long run, to any meaningful improvement of Africa’s position in global value chains and hence its greater participation in the international trade in new market-dynamic products (Gibbon and Ponte, 2005). The importance of the role of the State in providing these public goods is no longer contested even by the architects of Africa’s trade liberalization (see, for example, World Bank, 2008b).

It follows that policy interventions to improve export performance in agriculture should target specific socio-economic issues and institutions that have been identified as preventing Africa from reaching its true potential in international agricultural trade. The main policy objective should be to improve agricultural productivity and efficiency in agricultural trade. As such, policy should be designed, inter alia, to increase public investment in research and development, rural infrastructure — including roads and irrigation facilities — and health and education. Easier access to inputs, encouragement for new investment and better access to market information would also help improve overall efficiency in agricultural trade. A speedy conclusion to the agricultural negotiations in the Doha Round in a manner that responds to the development interests of African countries will also be critical for Africa’s agricultural trade in general.
This chapter analyses the trends in manufacturing production and exports after trade liberalization. It identifies the most serious remaining challenges requiring attention to increase exports of manufactured products.

According to the architects of trade liberalization policies implemented in Africa starting in the 1980s, the argument for trade liberalization as a way to revive the manufacturing sector stemmed from the existence of different forms of trade protection in the 1970s and early 1980s, which isolated an inefficient manufacturing sector from the pressure of competition. These trade protection measures included high import tariffs, quantitative restrictions on competing imports, and high levels of tariffs on inputs and capital goods. In addition, direct export taxes and exchange rate overvaluations created substantial disincentives for manufacturing exports. In essence, the structure of incentives encouraged resource flows into protected and inefficient import-competing sectors that, as a result, had little incentive to innovate (World Bank, 1981; World Bank 1994).

Any trade and development strategy should attempt to increase manufacturing exports in view of the following four factors. First, trade in manufactured products has played a key role in the successful development experience of other regions, in particular East Asia. Africa would like to emulate this positive experience. Second, given Africa’s historic dependence on low-value primary commodity exports and its impact on the continent’s economic growth, it is probably opportune to envisage alternative export strategies. Encouraging the export of manufactured products would be a way of achieving the much-needed diversification out of the crowded low-value primary commodity market. Exporting high-value manufactured products could help Africa to move into new market segments, as the experience of Mauritius has shown. Third, manufactured products have a diversified demand, implying that these products offer a better potential for market growth than primary commodities traditionally exported by African countries. Fourth, given the small size of the domestic markets in most