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EXPORT PERFORMANCE FOLLOWING TRADE LIBERALIZATION: Some Patterns and Policy Perspectives



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Chapter 3

AFRICA'S EXPORT PERFORMANCE THROUGH MANUFACTURING EXPORTS

A. Trends in manufacturing exports

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

African countries, export markets represent opportunities needed to absorb the additional production that would result from the process of economic growth and structural transformation in Africa. The large size of external markets could also help Africa's firms to realize the economies of scale necessary to become internationally competitive. In a nutshell, increasing manufacturing exports is necessary to "maintain industrial growth, expand employment opportunities, and diversify exports" (World Bank, 1981: 95).

It will not be easy for Africa to increase substantially its exports of manufactured products given the continent's poor historical trend in this regard. As table 7 shows, the shares of African countries' manufacturing exports to GDP over the last 25 years have remained very small for most countries. Africa has made marginal progress in terms of increasing its exports of manufactured products, even after trade liberalization.

In the period 2000–2006, only 8 countries out of a sample of 35 (23 per cent) for which data was available had manufacturing exports representing 10 per cent or more of GDP. At the continental level, this represented manufacturing export shares averaging 26 per cent of total merchandise exports. This gives Africa the lowest share of all developing regions. Over the same period, manufacturing export shares of total merchandise exports in East Asia, South Asia and Latin America were 92 per cent, 56 per cent and 54.5 per cent, respectively (figure 20). There were, however, important variations across African countries. Middle-income countries such as Mauritius, Morocco, Namibia, South Africa and Tunisia had relatively high shares, accounting for most of Africa's manufactured exports; the rest of Africa exported negligible amounts.

The low level of manufacturing exports can be associated with low manufacturing production. From 1965 to 2005, sub-Saharan Africa's manufacturing value added did not improve from its original value of 15 per cent of GDP in the 1960s (fig. 21). This proportion has remained half the value in East Asia and Pacific since the early 1970s. Information in table 7 above shows that in Africa, only Botswana and Swaziland have reached manufacturing export to GDP rates which are equal to or higher than the average of 30 per cent of GDP observed in the East Asia and Pacific region.

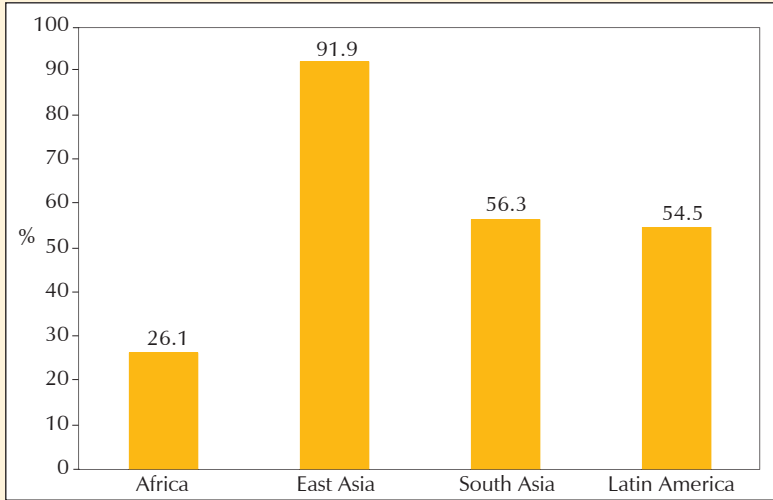
Figure 21 shows a mildly declining trend in the ratio of manufacturing value added to GDP. This is particularly the case in the period from the late 1990s onwards, when most economies in Africa were liberalized (see table 2 in chapter

Table 7
African countries' average manufacturing exports
(GDP percentages)

	1980–1989	1990–1999	2000–2006
Benin	0.5	1.5	1.3
Botswana	35.7
Burkina Faso	0.5	..	1.4
Burundi	..	0.2	0.4
Cameroon	1.3	1.5	0.9
Cape Verde	..	1.3	1.4
Côte d'Ivoire	3.4	6.3	7.8
Egypt	2.4	2.3	2.1
Ethiopia	..	0.4	0.8
Gabon	2.8	1.4	4.0
Gambia	0.4	1.4	0.6
Ghana	0.3	3.1	4.5
Guinea	..	4.5	6.3
Kenya	2.0	4.6	3.5
Madagascar	0.8	3.1	6.3
Malawi	1.6	2.5	2.6
Mali	0.1	1.4	8.8
Mauritius	25.2	28.5	26.1
Morocco	6.0	10.0	14.0
Mozambique	..	0.9	1.1
Namibia	17.2
Niger	0.4	3.5	1.8
Nigeria	0.0	0.6	0.7
Rwanda	..	0.2	0.2
Senegal	3.5	7.2	7.5
Seychelles	1.2	2.3	2.3
Sierra Leone	3.8	..	0.4
South Africa	4.4	9.1	13.2
Sudan	0.2	0.3	0.3
Swaziland	46.9
Togo	2.5	4.0	13.7
Tunisia	11.7	21.6	25.9
Uganda	..	0.7	1.0
United Republic of Tanzania	..	1.2	1.9
Zambia	..	4.4	4.4

Source: Computed from World Bank, 2008a.

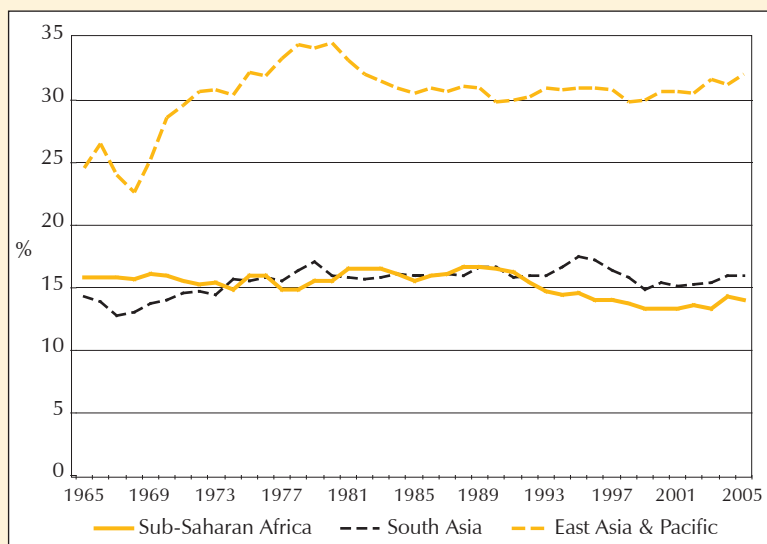
Figure 20
Developing regions' shares of manufacturing exports to total merchandise exports, 2000–2006



Source: UNCTAD, 2008a.

1). This finding could be one reason why manufacturing exports did not increase in most African countries even after trade liberalization. Disaggregating data by product groups in table 8 confirms the information in table 7 above: only a handful of countries account for most manufacturing exports from Africa. These are South Africa, Algeria, Libya, Tunisia, Morocco and Egypt. The list clearly shows that manufacturing exports are predominantly from North Africa. The case of Tunisia is interesting. The country had the highest tariff level in 2006, but the third-highest ratio of manufacturing export to GDP in the same year, illustrating that trade taxes are just one among several determinants of export performance, as discussed in chapter 1. These data also show that, in 2006, Africa continued to be a marginal player in the export of manufactured products. Despite the impressive growth in world exports of the different product groups represented in table 8, Africa's shares have remained extremely small. This is an indication of the continent's failure to take advantage of new export opportunities offered by the world economy. Making African countries more responsive to export opportunities should be one of the key priorities of the continent's future export strategies.

Figure 21
Manufacturing value-added to GDP
(Per cent)



Source: Based on World Bank, 2008a.

The next table provides more detailed data on the types and importance of Africa's manufactured exports. It considers 38 product groups and compares Africa's performance with other developing regions. The message is very clear: Africa remains an insignificant actor in world trade of manufactured products, even in the post-liberalization era. In the period 2003–2006, developing Africa accounted for less than 1 per cent of world trade in manufactured products. Sub-Saharan Africa accounted for about 0.5 per cent of world trade in manufactured products, but the share was only 0.23 per cent if South Africa was excluded.

A group-by-group analysis reveals that in sub-Saharan Africa, export market shares are higher than 2 per cent of total exports of the group in only four cases. If South Africa is excluded, there is only one group of manufactured products for which Africa exports more than 2 per cent of world trade — the group of non-metallic mineral manufactures, 3 per cent of which are exported from sub-Saharan Africa. In comparison, South-East Asia accounts for 18.5 per cent of total manufacturing exports. In contrast to Africa, this region also exports more than 10 per cent of total exports of 31 out of 38 product groups in the table.

Table 8
Africa's manufactured export shares,^a 1999–2006
(Value terms, per cent)

Product description	SITC Code	Rank	World growth in value	Africa's share of world exports	Top four exporters
Total all products	-	-	59.62	1999–2002 2.12 2003–2006 2.51	South Africa, Algeria, Nigeria, Libya
Manufactured goods	5 to 8 less 68	-	51.59	1999–2002 0.77 2003–2006 0.82	South Africa, Tunisia, Morocco, Botswana
Fertilizers other than group 272	56	20	48.90	1999–2002 6.80 2003–2006 6.09	Morocco, Tunisia, South Africa, Libya
Inorganic chemicals	52	16	52.40	1999–2002 5.42 2003–2006 5.26	South Africa, Morocco, Tunisia, Algeria
Non-metallic mineral manufactures, n.e.s.	66	17	51.70	1999–2002 5.45 2003–2006 4.70	Botswana, South Africa, Dem. Rep. of the Congo, Namibia
Articles of apparel & clothing accessories	84	27	38.29	1999–2002 3.43 2003–2006 3.18	Tunisia, Morocco, Mauritius, Lesotho
Iron and steel	67	1	108.94	1999–2002 2.31 2003–2006 2.43	South Africa, Egypt, Zimbabwe, Libya
Leather, leather manufactures and dressed fur skins	61	31	31.54	1999–2002 1.78 2003–2006 1.35	South Africa, Ethiopia, Tunisia, Nigeria
Essential oils for perfume materials and cleaning preparations	55	6	66.17	1999–2002 1.40 2003–2006 1.97	Swaziland, South Africa, Côte d'Ivoire, Egypt
Cork and wood manufactures (excluding furniture)	63	19	51.59	1999–2002 1.36 2003–2006 1.49	Ghana, South Africa, Gabon, Côte d'Ivoire
Footwear	85	28	34.20	1999–2002 1.22 2003–2006 1.39	Tunisia, Morocco, Lesotho, Côte d'Ivoire
Prefabricated buildings, sanitary, heating and lighting fixtures, n.e.s.	81	12	56.76	1999–2002 1.02 2003–2006 0.51	Egypt, South Africa, Morocco, Nigeria
Furniture and parts thereof	82	18	51.61	1999–2002 0.90 2003–2006 0.83	South Africa, Morocco, Tunisia, Egypt
Textile yarn and related products	65	33	27.96	1999–2002 0.81 2003–2006 0.73	Egypt, South Africa, Tunisia, Morocco
Paper and paper manufactures	64	32	31.51	1999–2002 0.62 2003–2006 0.66	South Africa, Tunisia, Côte d'Ivoire, Kenya
Rubber manufactures, n.e.s.	62	9	60.02	1999–2002 0.62 2003–2006 0.59	South Africa, Tunisia, Egypt, Morocco
Manufactures of metal, n.e.s.	69	11	58.22	1999–2002 0.59 2003–2006 0.68	South Africa, Zambia, Tunisia, Egypt
Other industrial machinery and parts	74	10	59.53	1999–2002 0.56 2003–2006 0.71	South Africa, Tunisia, Egypt, Nigeria
Dyeing, tanning and colouring materials	53	25	42.01	1999–2002 0.56 2003–2006 0.57	South Africa, Tunisia, Côte d'Ivoire, Egypt
Chemical materials and products, n.e.s.	59	13	53.33	1999–2002 0.55 2003–2006 0.58	South Africa, Egypt, Swaziland, Côte d'Ivoire
Organic chemicals	51	4	73.96	1999–2002 0.51 2003–2006 0.58	South Africa, Libya, Algeria, Equatorial Guinea

Source: Computed from UNCTAD 2008a.

a Product groups for which Africa exports at least 0.5 per cent of world export value in the base period, 1999–2002.

The general message from the tables and figures above is that Africa has played almost no role in the world manufacturing trade, both before and after trade liberalization. Since Africa's restrictive trade policies cannot be blamed for this, the main reason is most probably the low level of exportable manufacturing production, which leads to the failure to take advantage of available manufacturing export opportunities in the world economy. There are at least three general explanations for the low level of manufacturing production in Africa.²⁸ The first is that developing the manufacturing sector in Africa requires massive investments that are difficult to make, given the risky business environment prevailing in many African economies. This issue is discussed in the 2007 *Economic Development in Africa* report (UNCTAD, 2007). The second explanation is technological. It suggests that Africa lacks the technological capabilities needed to set in motion a successful process of industrialization. According to this view, firms in Africa fail to export manufacturing products because they do not have the technical efficiency required to innovate and create new goods that are competitive in world markets.

The third explanation — which is the most dominant and is related to the previous two — revolves around the comparative advantage argument. Africa's generous endowment in natural resources, combined with the continent's scarcity of skills, creates a comparative advantage in the production and export of primary commodities. This form of specialization, in turn, hampers the development of an export-oriented manufacturing sector. Some analysts have even gone as far as proposing that Africa is spoilt by its abundant natural resources, preventing the continent from developing more sophisticated products that could eventually be exported. Hence, observers have remarked that the continent suffers from a natural resource curse, which retards its development (Humphreys et al., 2007).

While the first two explanations are relatively straightforward, the comparative advantage argument has been misunderstood and to some extent misused when attempting to explain Africa's unenviable position in international markets. The following section discusses the comparative advantage thesis in some detail.

Table 9
Developing regions: shares in global manufactured exports, 1999–2006
(Value terms, per cent)

	Developing economies		Developing Africa		Sub-Saharan Africa		Sub-Saharan Africa excl. South Africa		Northern Africa		East Asia		South Asia		South-East Asia		Latin America	
	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006
All products	30.93	34.71	2.12	2.51	1.39	1.62	0.96	1.18	0.76	0.93	12.16	14.48	1.47	1.77	6.46	6.31	5.24	5.08
Manufactured goods (SITC 5 to 8 less 68)	28.25	32.05	0.77	0.82	0.51	0.56	0.20	0.23	0.27	0.26	14.72	18.46	1.14	1.33	6.49	6.37	4.06	3.60
Chemicals and related products, n.e.s.	16.78	19.26	0.90	0.88	0.50	0.53	0.16	0.20	0.40	0.35	7.38	8.45	0.91	1.22	3.49	4.38	2.54	2.29
Organic chemicals	18.67	25.67	0.51	0.58	0.34	0.45	0.03	0.06	0.17	0.13	7.35	10.09	1.24	1.90	5.05	7.75	2.33	2.41
Inorganic chemicals	26.17	30.52	5.42	5.26	2.50	2.58	0.67	0.75	2.92	2.69	10.94	14.26	0.80	1.13	1.65	2.21	4.50	4.53
Dyeing, tanning and colouring materials	20.01	20.14	0.56	0.57	0.50	0.49	0.12	0.11	0.06	0.08	10.22	10.54	1.63	1.9	3.38	3.60	3.46	2.28
Medicinal and pharmaceutical products	7.06	5.81	0.18	0.12	0.11	0.08	0.04	0.03	0.06	0.04	2.47	1.92	1.11	1.10	1.12	1.11	1.82	1.22
Essential oils for perfume materials and cleaning preparations	15.32	16.20	1.40	1.97	1.15	1.74	0.85	1.42	0.25	0.23	3.36	3.63	0.75	0.78	3.79	4.31	3.84	3.37
Fertilizers other than group 272	20.42	25.32	6.80	6.09	1.43	1.29	0.51	0.56	5.37	4.80	3.15	5.81	0.44	0.40	2.50	2.26	2.43	2.59
Plastics in primary forms	26.47	30.83	0.29	0.47	0.23	0.22	0.03	0.03	0.06	0.25	14.96	16.44	0.48	1.00	5.70	6.81	2.51	2.54
Plastics in non-primary forms	15.94	18.39	0.32	0.26	0.15	0.16	0.06	0.05	0.17	0.10	9.23	10.27	0.43	0.68	2.80	3.15	2.19	2.43
Chemical materials and products, n.e.s.	14.83	17.03	0.55	0.58	0.50	0.52	0.08	0.11	0.05	0.06	6.85	8.32	0.8	1.01	3.77	4.20	2.48	2.34
Manufactured goods	30.04	33.01	1.96	2.29	1.72	2.04	0.73	0.76	0.24	0.26	14.75	16.52	2.91	3.17	3.87	3.74	4.62	4.81
Leather, leather manufactures and dressed furskins	49.68	52.35	1.78	1.35	1.28	0.98	0.56	0.55	0.57	0.37	27.00	29.07	5.18	5.40	3.13	2.80	12.00	12.83
Rubber manufactures, n.e.s.	20.79	24.63	0.62	0.59	0.46	0.46	0.07	0.07	0.16	0.13	9.41	11.72	1.15	1.49	4.28	5.60	3.80	3.57
Cork and wood manufactures (excluding furniture)	32.70	31.77	1.36	1.49	1.15	1.30	0.79	1.03	0.21	0.19	8.34	11.22	0.19	0.28	17.06	12.39	5.37	5.69
Paper and paper manufactures	14.03	14.72	0.62	0.66	0.53	0.53	0.12	0.14	0.09	0.14	5.90	6.31	0.21	0.31	3.66	3.43	2.94	3.00
Textile yarn and related products	50.54	53.49	0.81	0.73	0.41	0.36	0.27	0.21	0.40	0.37	31.94	34.63	7.20	7.73	4.74	4.39	2.56	2.20
Non metallic mineral manufactures, n.e.s.	28.08	31.93	5.45	4.70	5.25	4.38	2.98	3.00	0.20	0.32	8.26	10.81	6.36	6.74	3.21	3.21	2.90	2.60
Iron and steel	24.68	29.02	2.31	2.43	1.99	2.08	0.20	0.16	0.32	0.35	11.29	13.94	1.23	2.02	1.81	2.25	5.44	5.55
Manufactures of metal, n.e.s.	26.75	30.11	0.59	0.68	0.49	0.53	0.16	0.18	0.11	0.15	16.96	19.75	1.08	1.36	2.83	3.26	4.20	3.46

Table 9 (contd.)

	Developing economies		Developing Africa		Sub-Saharan Africa		Sub-Saharan Africa excl. South Africa		Northern Africa		East Asia		South Asia		South-East Asia		Latin America	
	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006	1999–2002	2003–2006
Machinery and transport equipment	26.70	32.31	0.30	0.40	0.22	0.30	0.04	0.06	0.08	0.1	13.16	18.98	0.16	0.29	8.04	7.86	4.53	3.96
Power generating machinery and equipment	12.98	15.26	0.18	0.30	0.16	0.28	0.04	0.04	0.02	0.02	4.78	5.93	0.21	0.38	2.40	2.86	4.95	4.95
Specialised machinery	11.70	15.58	0.30	0.32	0.26	0.29	0.07	0.08	0.04	0.04	6.77	9.01	0.28	0.46	2.47	3.06	1.43	1.98
Metal working machinery	12.13	16.95	0.14	0.14	0.13	0.11	0.02	0.03	0.01	0.03	8.94	12.09	0.33	0.52	1.66	2.87	0.71	0.81
Other industrial machinery and parts	15.51	19.32	0.56	0.71	0.52	0.67	0.04	0.05	0.04	0.04	7.94	10.9	0.25	0.46	3.03	3.53	3.16	3.03
Office machines and automatic data processing machines	45.58	55.32	0.05	0.06	0.05	0.05	0	0.01	0	0.01	23.00	35.88	0.10	0.11	18.40	15.94	3.91	3.12
Telecommunication and sound recording apparatus	40.04	51.58	0.12	0.16	0.11	0.14	0.02	0.06	0.02	0.02	22.48	36.2	0.05	0.09	9.73	8.33	6.96	5.56
Electrical machinery, apparatus and appliances, n.e.s.	39.80	46.51	0.34	0.43	0.08	0.09	0.01	0.02	0.26	0.34	19.02	25.36	0.17	0.26	15.45	16.27	4.44	3.65
Road vehicles	13.05	15.71	0.40	0.58	0.37	0.54	0.04	0.09	0.03	0.05	4.85	7.00	0.17	0.33	0.93	1.51	6.02	5.22
Other transport equipment	13.56	18.22	0.43	0.54	0.41	0.52	0.23	0.3	0.02	0.02	7.95	10.99	0.15	0.41	1.37	2.36	2.75	2.31
Miscellaneous manufactured articles	40.06	42.07	1.24	1.18	0.44	0.48	0.29	0.33	0.81	0.7	24.60	26.94	2.46	2.67	6.20	5.96	3.85	3.31
Prefabricated buildings, sanitary heating and lighting fixtures, n.e.s.	30.36	32.09	1.02	0.51	0.30	0.20	0.18	0.05	0.72	0.31	20.19	21.44	0.2	0.25	2.07	1.81	5.44	5.21
Furniture and parts thereof	27.99	33.55	0.90	0.83	0.81	0.71	0.11	0.09	0.09	0.12	12.52	18.17	0.13	0.39	7.32	6.99	6.45	6.11
Travel goods, handbags, etc.	66.62	60.36	0.36	0.36	0.11	0.12	0.07	0.08	0.25	0.24	54.92	52.36	2.78	2.45	6.40	3.86	1.63	0.79
Articles of apparel & clothing accessories	63.74	65.26	3.43	3.18	0.85	0.86	0.74	0.77	2.58	2.33	34.15	37.29	7.25	7.41	9.00	8.23	5.08	3.84
Footwear	53.98	55.01	1.22	1.39	0.22	0.32	0.19	0.29	1.00	1.07	37.00	38.14	1.76	1.99	9.04	9.04	4.39	3.74
Professional and scientific instruments, n.e.s.	15.80	26.09	0.20	0.21	0.13	0.14	0.04	0.04	0.07	0.07	8.41	18.20	0.24	0.25	3.16	3.59	3.6	3.56
Photo apparatus, optical goods, watches and clocks	30.40	29.85	0.14	0.13	0.09	0.09	0.05	0.05	0.04	0.03	21.89	21.53	0.18	0.20	6.00	6.15	1.79	1.48
Miscellaneous manufactured articles, n.e.s.	34.41	35.38	0.41	0.55	0.32	0.48	0.19	0.34	0.09	0.07	24.41	24.16	1.10	1.88	4.91	5.15	2.77	2.36

Source: Computed from UNCTAD on-line trade statistics

B. Is Africa's failure to export manufactured products due to comparative advantage?

A number of analysts consider that Africa's failure to export manufactured products is a result of the continent's comparative advantage. Wood and Mayer (2001: 369), for example, note that Africa's export dependence on primary commodities is due to the "combination of low levels of education and abundant natural resources". In the same connection, Mayer and Fajarnes (2005) write that Africa could triple its primary commodity exports given its comparative advantage. The reasoning follows the Heckscher–Ohlin theory, which asserts that a country's export composition reflects its resources. According to the theory, African countries should specialize in the production of primary commodities, given the continent's relatively generous endowment in natural resources. Africa should specialize in the export of coffee, cocoa, cotton and similar primary commodities and use its export revenue to purchase manufactured goods produced in developed economies and elsewhere.

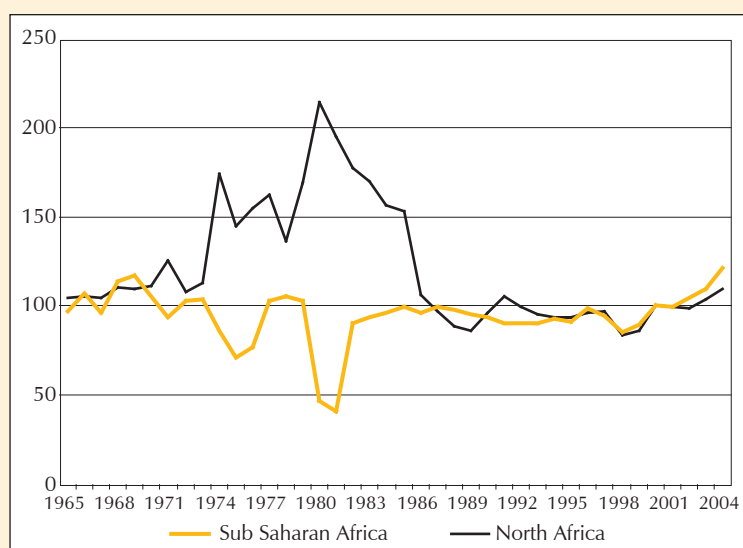
Even if this view has remained influential in many development circles, it is flawed in several respects. The assumptions underlying the comparative advantage argument are, empirically speaking, rarely met in reality. These assumptions include the following: (a) factors of production must be immobile; (b) the country must have the capacity to produce all types of goods; (c) trade must be balanced (no trade deficits); (d) perfect competition must prevail; and (e) all productive resources within the country must be fully employed. Even if some of these assumptions can be relaxed without totally invalidating the comparative advantage theory, it seems inadequate to advise African countries to specialize in the production and export of primary commodities based on the comparative advantage thesis before establishing its relevance.

Globalization and the organization of international trade in primary commodities have changed the global economic system and brought to the fore several factors that contradict most of the assumptions of the comparative advantage theory. For example, financial globalization and emigration have grown to such important proportions that it has become difficult to defend the assumption of immobility of the factors of production. Moreover, price volatility of primary commodities and the secular decline in their terms of trade have made income and growth more volatile, aggravating African countries' trade deficits, which invalidates the "balanced trade" assumption of the comparative advantage hypothesis.

Figure 22 shows that, from 1965 to 2004, sub-Saharan Africa's terms of trade did not improve. In fact, over a longer time horizon — the period 1900–2000 — calculations in Ocampo and Parra (2003) show that the prices of the 24 major non-fuel commodities — including those of special interest to Africa, such as cocoa, coffee, copper, cotton, sugar and tea — declined by an average of 1 per cent per year. African export prices in 2002 were a fraction of their 1995 level. Coffee exports lost two thirds of their value, whereas exports of copper, cotton and sugar lost roughly half of their 1995 value (Ackah and Morrissey, 2005). The recent increase in commodity prices does not fundamentally affect this secular trend. With this generally negative picture, the suggestion that Africa should continue to export its traditional primary commodities is difficult to justify.

Commodity exporters have also suffered from the ills of market concentration in importing countries, where a small number of large companies act as processors, traders and retailers. This is the case with cocoa and chocolate, for example.²⁹ In addition, advising African countries to focus on the production

Figure 22
Africa's terms of trade for the period 1965–2004
(2000 = 100)



Source: World Bank, 2006.

and export of primary commodities, which are produced more competitively in other regions, contributes to keeping commodity prices low due to oversupply. Although the prices of a number of commodities of export interest to Africa have recently increased, this does not reduce these economies' need to diversify out of commodities (see chapter 2). Also, it is untenable to assume that all factors of production within African economies are fully employed to justify the relevance of the comparative advantage argument.

There is an emerging literature arguing that the most important issue for a country's export potential is not its static comparative advantage, but its potential, determined by what the country specializes in through developing its competitive advantage (Lall et al., 2006; Hausmann et al., 2007). Economic development entails structural change, usually from primary commodity dependence to manufacturing and services. Even within manufacturing, the experience of newly industrialized countries has shown a transformation from the production of mainly low-technology goods such as textiles and garments, to more technology-intensive products, which are characterized by increasing or at least stable terms of trade. This explains the preference for exporting more sophisticated products, even in economies that may have a comparative advantage in the production of primary commodities.

If anything, justifying a country's export performance based solely on the traditional comparative advantage thesis misses the dynamic aspect of the concept. Lall et al. (2006) provide an interesting illustration of this dynamic. The authors ranked 766 export products according to their "sophistication" in 1990 and 2000 to determine which types of products moved on the sophistication ladder over time.³⁰ They found that upward mobility on the sophistication ladder was not uniform; it was much easier to add more value to relatively sophisticated products than to unsophisticated ones. This finding supports the argument that comparative advantage must be understood as a dynamic concept. Countries can acquire new comparative advantages depending on the way they use their resources to promote new competitive products. Hence, the strategy of product diversification consisting of simply adding value to originally unsophisticated products such as primary commodities has its limits.

It is also clear that not all traded goods have the same effect on economic performance. According to Hausmann et al. (2007: 2), "Countries that continue to produce 'poor-country' goods remain poor... [so] countries become what they produce". The countries that specialize in higher productivity goods record

a better economic performance than those specializing in low-productivity goods.³¹ Using an index of the productivity level associated with a country's specialization pattern, poor African countries such as Niger, Ethiopia, Burundi, Benin and Guinea display the smallest values of the index. On the other hand, rich countries such as Luxembourg, Ireland, Switzerland and Iceland have the highest values. As a result, the countries that have been able to reap the benefits offered by expanding export markets thanks to the process of globalization are those that have successfully transformed their economies from the production and export of poor-country goods to high-productivity goods.

Poor-country goods are generally primary commodities and the high concentration in the export of such primary commodities is another characteristic of poor African countries. Amurgo-Pacheco and Pierola (2008) score economies according to their export diversification and find that, relative to developed and other developing economies, sub-Saharan Africa has the lowest level of product diversification over the period 1990–2005. In fact, most African countries continue to export one or two primary commodities. East Asian economies display the highest diversification score, and this region has displayed the most spectacular economic performance over the last few decades.

Confining Africa to the production and export of low productivity goods (the so-called “poor-country” goods) based on the traditional comparative advantage argument is tantamount to condemning the continent to remain poor. There is no reason why African countries should remain commodity exporters forever. As suggested by the endogenous growth theory, countries can create new comparative advantages outside the primary commodity sector through the positive externalities created by the accumulation of human capital and increases in technological capabilities. Above all, rather than encouraging African countries to maintain their specialization in the production and export of primary commodities, in spite of the continuous deterioration in their terms of trade, these countries should be assisted to get out of the primary commodity trap by putting in place economic structures that encourage the production and export of manufacturing products. Strategies towards economic diversification into higher productivity goods would increase welfare in the future, even if they may be costly and hence not necessarily optimal in the short term.

In the light of the foregoing, the main barrier preventing African countries from exporting high-value manufactured products is not comparative advantage. Africa's failure to export manufacturing products is due to the combination of

macroeconomic and microeconomic factors that define the incentive structure for producing and exporting manufactured products. For example, the lack or weakness of an incentive system encouraging entrepreneurs to engage in the “cost discovery” process is considered a major factor explaining why Africa has been locked up in the undiversified primary commodity economy.³² Macroeconomic policies such as exchange rate and fiscal policies can affect the incentive to produce more exportable products. However, microeconomic factors — such as firm productivity, investment, firm size and firm access to factors of production — are the most direct determinants of what firms produce and how competitive they are in their ability to export them. Focusing on these factors could create a new competitive advantage in manufactured products in African economies; this is discussed in the next section.

C. Trade liberalization and manufactured exports: lessons from the microeconomic empirical literature

Differences in trade liberalization policies implemented in Africa over the last 25 years can explain only part of the difference in export performance between Africa and other developing regions. Firm-level evidence is central in explaining why some firms are successful exporters of manufactured products while others are not. Put differently, why do countries such as China export competitively the same manufactured products African countries have been unsuccessfully trying to export?

1. Firm competitiveness and manufactured exports

The small size of domestic African markets implies that African firms should target export markets in order to expand their production (Bigsten and Soderbom, 2006). The export liberalization measures discussed in chapter 1 — eliminating foreign exchange rationing, export licensing and export taxes, and dismantling marketing boards — could be considered the means, not the ends, through which African countries could increase their manufacturing exports. Studies that seek to relate trade reforms and the export performance of the manufacturing sector in Africa identify low productivity as one key factor constraining African firms’ capacity to participate in export markets (Teal, 1999b; Bigsten and Soderbom, 2006). Low productivity in Africa originated from import substitution policies pursued during the 1960s and 1970s. For example, the use of quotas rather than tariffs shielded domestic firms from the effect of external competition, which

led to their inefficiency and lack of competitiveness in international markets. In Ghana, for example, even the modest increase in manufacturing output in the first half of the 1990s (about 4 per cent per annum) following trade liberalization in the 1980s, was not due to technical progress, but to physical and human capital accumulation (Teal, 1999b).

However, technical efficiency does not seem to be the main determinant of the difference in competitiveness between Africa and other developing countries, particularly those in Asia.³³ This is illustrated in a comparison of productivity levels in the garments industries of Kenya and Bangladesh, two countries at a comparable level of income (GDP per capita was \$456 and \$454, respectively, in 2006). Bangladeshi and Kenyan garments producers use similar technologies, but Bangladesh has become one of the top garments exporters, selling all its production to the European and United States markets (Fukunishi, 2007). Kenya, on the other hand, has not been able to penetrate the export market, and even lost a big share of its domestic market due to strong pressure from cheap imports following trade liberalization in the 1980s and 1990s.

The comparison between Bangladesh and Kenya is interesting because the former is a success story of a poor country, sharing the same characteristics with many African countries, which has been able to break into the world garment market. One of the main barriers to the competitiveness of Kenya's garments relative to those from Bangladesh is the high production cost. On average, the production cost is three times higher in Kenya than in Bangladesh. Decomposing this cost, the most important determinant is the wage cost, which is 138 per cent higher in Kenya than in Bangladesh.

The difference in wage costs between firms in Africa and other developing regions appears to be an empirical regularity (Dollar and Zeufack, 1999). Allocative inefficiency, the second most important factor, is just 17 per cent higher in Kenya than in Bangladesh. Technical inefficiency, the cost of capital and firm size (scale economies) do not seem to have a significant influence on the difference in production costs of firms in the two countries.

There is no doubt that cost efficiency is important for a firm's competitiveness in global markets. The examples of Ethiopia, Ghana and Kenya show that there is a positive correlation between manufacturing firm productivity and exporting (Mengistae and Pattillo, 2004). Hence, whether or not a firm will export mainly depends on two factors — the cost of production and the level of entry barriers

in the export market. Exporting requires production costs that are below a certain threshold, while firms with costs above the threshold focus on the domestic market.³⁴

High costs in Africa's manufacturing include not just labour costs. Non-labour costs of credit and transport, as well as indirect costs, are much higher in Africa than in China. In Kenya and Madagascar, for example, export finance costs borne by clothing exporters represent 136 per cent and 227 per cent, respectively, of the cost in China. Material costs in the two African countries are twice and almost three times, respectively, the cost in China (Kaplinsky and Morris, 2007). Therefore, the high cost of Africa's manufacturing exports relative to those of its competitors appears to be a structural problem rather than a relatively limited issue of labour productivity.

Whether firms become efficient due to exporting — which is commonly referred to as the learning-by-exporting hypothesis — or whether firms export because they are efficient is a question that has interested researchers for some time. Using appropriate econometric techniques that account for the possibility of a two-way causality between productivity and exporting, empirical evidence on African manufacturing concludes that the causality runs from exporting to higher efficiency, confirming the learning-by-exporting hypothesis (Bigsten et al., 2004; Van Biesebroeck, 2005). Learning from exporting is so important that it can generate long-term productivity gains amounting to 50 per cent of total value added (Bigsten and Soderbom, 2006). This clarifies the finding in chapter 1 that the level of past exports tends to lead to higher exports in the future, a process we have termed “export momentum”.

Exporting is associated with two types of learning. The traditional aspect refers to the experience that exporting firms acquire through productivity learning, which they use to produce at lower cost. There is another type of learning, termed “market learning” (Fafchamps et al., 2008). This relates to the fact that exporting exposes firms to foreign consumers' requirements, giving the former the opportunity to learn how to design products that appeal to foreign consumers. Data on Moroccan manufacturing firms show that market learning, not productivity learning, is what enables firms to export. This finding could be explained by the high concentration of Moroccan manufactured exports in consumer items.

In view of the gains associated with exporting, the question is, “Why so few manufacturing firms in Africa export?” In particular, the question is, “Why wouldn’t firms learn to be more productive in the domestic market, improve their competitiveness and start exporting?” While this sounds like a logical question, the discussions in chapters 1 and 2 argue that export markets are still characterized by different forms of entry barriers, particularly NTMs. These pose a serious challenge to potential exporters from Africa. Moreover, Africa’s domestic market requirements in terms of product characteristics are so different from those in export markets that the former are poor indicators of the needs of export markets. Hence, exporting firms are normally those that are formed with the specific objective of producing for foreign markets. In Morocco, 75 per cent of manufacturing firms that export do so within their first three years of existence (Fafchamps et al., 2008). Old firms are unlikely to switch to exports, even as a response to changes in macroeconomic incentives.

The evidence discussed in this section suggests that, in order to increase manufacturing exports from Africa, trade liberalization policies should be accompanied by strong actions to strengthen firm productivity and market learning, in order to increase price competitiveness and produce exports that appeal to foreign consumers.

2. Trade liberalization, firm investment and export

Physical capital investment has been identified as the main channel through which trade affects the level of economic growth (see for example, Baldwin and Seghezza, 1996; Wacziarg and Welch, 2003). As discussed in chapter 1, trade openness may increase the rate of investment in three ways. First, import liberalization reduces the cost of imports in general and this can induce economies which rely on imported capital inputs to import more, increase their investments and allow the competitive production of exportable goods. Second, trade liberalization in general and import competition in repressed economies reduce entry costs, opening up investment opportunities. The widening of the production base raises pressure for efficiency, increasing competitiveness for domestic and possibly export markets. Third, export liberalization should make exporting more profitable, helping to attract more domestic and foreign investments in the production of exportable goods. However, whether productive investment has actually increased in Africa because of trade liberalization is an empirical question.

The relationship between liberalization and the rate of investment is tested using regression analysis. Over the period 1950–1998, physical capital investment in liberalized regimes was between 1.2 and 1.9 percentage points higher than in non-liberalized regimes, depending on the specification of the model considered (Wacziarg and Welch, 2003). This difference represents a small increase in investment, particularly in Africa, where very high increases in investment levels are needed to achieve socio-economic development goals. For example, it has been estimated that Africa needs to increase its investment-to-GDP ratio to about 34 per cent, which is close to the investment rate in the East Asia and Pacific region, to attain the Millennium Development Goals (UNCTAD, 2007). Table 10 shows, however, that increases in investment following trade liberalization were modest.

The data in table 10 show a relatively weak investment response after liberalization, irrespective of the region or group of countries considered. This suggests that the low levels of investment are probably due to factors other than trade controls. The factors explaining low investment in Africa include poor infrastructure, high entry costs, labour market constraints, low investor protection, difficulty of accessing credit, and high and cumbersome tax systems (UNCTAD, 2007). Although trade liberalization reduced the effect of these factors on investment, its effect was limited.

At the macroeconomic level, investment in Africa is mainly influenced by economic activity and the depth of financial development. Measures such as the amount of credit to the private sector and total liquid liabilities are good predictors of the rate of investment (Ndikumana, 2000). This is consistent with firm-level evidence in a number of African countries. It shows that the lack of financial resources is the leading constraint to investment in the continent. The sensitivity of investment to changes in profits uncovered in microeconomic

Table 10
Trade liberalization and investment in Africa
(Median ratios over GDP)

Region	Before	After	Change (%)
Overall	19.31	20.41	5.70
Africa	17.30	19.47	12.54
Sub-Saharan Africa	16.44	18.87	14.78
Non-Africa	20.42	20.83	2.01

Source: Liberalization dates are from table 1, chapter 1. The investment variable is from World Bank, 2008a.

studies of Africa's manufacturing is an indication that firms tend to rely on internal resources to finance their investments. The preference for internal resources suggests that external resources might be too costly or too difficult to access, or both.

Microeconomic studies of the determinants of firm investment in Africa's manufacturing covering Cameroon, Côte d'Ivoire, Ghana, Kenya, Uganda, Zambia and Zimbabwe have estimated that, for every \$1 earned in profits, between \$0.06 and \$0.11 is invested, with the higher limit representing the effect in small firms. Although this is a relatively modest response of investment to profit, the statistical significance of the result is an indication of financial constraints facing manufacturing firms.³⁵

The message from this discussion is that, despite the fact that African countries have made significant efforts in dismantling their trade barriers, investment in the exportable manufacturing sector has been rather limited. The reason is that, in spite of the interest they attracted from the multilateral financial institutions that spearheaded Africa's economic reforms, trade liberalization and other domestic policies are only one factor, not necessarily the most important, determining investment and export performance. The typical reform package coming from multilateral financial institutions lacked complementary investment policies to strengthen the production sector and diversify Africa's exports in order to ease African economies' overdependence on primary commodities. Moreover, Africa's geographic isolation from its export markets implies that export costs are very high. Unfortunately, the reforms undertaken did not recognize the importance of investing in physical infrastructure to reduce the cost of trading.

What Africa needs now is to make the necessary investments that will help it to build strong, diversified and competitive productive sectors, enabling the continent to penetrate different segments of the export market. Relying on primary commodity exports alone has not been a successful export strategy for Africa. It is clear, however, that the small firms dominating Africa's manufacturing sector are unlikely to make it into export markets. Exporting will require the creation of large firms comparable in size with those in competing developing countries. This leads to the discussion of the issue of firm size and export performance.

3. Firm size and export performance

The manufacturing sector in general comprises a wide spectrum of activities. At the low end are activities that process products such as textiles, garments, leather goods and some basic transformation of agricultural and food products. These are produced in large factories where returns to scale can be an important factor of productivity in a highly competitive environment. These activities are mostly located in developing economies. At the high end are high-tech activities that characterize today's knowledge economy. These activities manufacture highly sophisticated products and are mostly located in developed and newly industrialized economies. Technology and knowledge are their key inputs but large size is not necessarily relevant.

African manufacturing belongs to the first group, where successful firms in export markets are usually large. Moreover, large size is an important asset in Africa, given the challenging domestic economic environment within which firms operate. In the Kenyan manufacturing sector, for example, the probability of firm failure decreases with firm size, meaning that large size helps firms to survive (Nkurunziza, 2005a). Young small firms are particularly fragile, highlighting the importance for survival and future performance of large size at entry (Audretsch, 1991; Audretsch and Mahmood, 1995). In this light, the fact that the distribution of the size of firms in Africa's manufacturing sector is skewed towards small size of firms is a serious handicap to export performance.

The analysis of the association between firm size and exporting in African manufacturing has uncovered a strong size effect on the likelihood to export. Exporting firms in Cameroon, Ghana, Kenya and Zimbabwe are systematically larger than non-exporting firms (Bigsten et al., 2004). This result is confirmed by another study on Mauritius and Zambia. Generally, a firm in sub-Saharan Africa exports only if it reaches a minimum size of 100 workers (Teal, 1999a). Firms of this size are very few, and they belong in the upper end of the size distribution. Therefore, the particularly small size of African manufacturing firms may help to explain why so few African firms export.

The fact that exporting requires an initial large sunk cost in terms of investments in market information and product compliance with the requirements of foreign markets may also explain why small firms self-select out of the export market. This cost argument also justifies the persistence of exporting: breaking into export markets is so costly that exporting firms tend to remain active in the export markets once they have entered them. Exporting firms have every incentive to

remain exporters, given the benefits associated with exporting, including the productivity learning and market learning effects discussed earlier.

The importance of firm size for exporting, however, cannot be dissociated from efficiency requirements. Large firms in Mauritius, for example, are more able to export than are large firms in Ghana, because productivity is four times higher in Mauritius than in Ghana, even if wages are three times higher in Mauritius than in Ghana (Teal, 1999a). The same pattern is observed when comparing firms in Thailand and Kenya. Thailand's success in exporting processed foods and textiles is largely due to differences in productivity. Thai firms produce three times as much value added as Kenyan manufacturing firms in the processed foods and textiles sectors, given the same amount of labour and capital (Dollar and Zeufack, 1999).

This difference in productivity is partly attributed to differences in the business environment between the two countries. Thai firms are also much larger than Kenyan firms. In the study mentioned above, small firms represent 60 per cent of the Kenyan sample, compared with 29 per cent for Thai firms. This distribution is in accordance with the fact that African manufacturing is dominated by small firms. More precisely, the size of Kenyan firms in the food-processing subsector is one fifth the size of Thai firms in the same sector. In the textiles and garments subsector, Kenyan firms represent, on average, 64 per cent of the size of Thai firms. Given that African firms start with very small size relative to firms in other regions, one important question is whether small firms have the opportunity to grow and reach the threshold size required to participate in export markets.

4. Credit constraint and firm growth

Considering that large size is necessary for an African firm to participate in export markets, the effect of credit on firm growth becomes a crucial issue. One possible explanation for the small size of African manufacturing firms may be that firms start with very small size and do not have access to external financial resources to invest and grow, owing to the underdevelopment of the financial sector in many African countries. Survey-based evidence covering the manufacturing sector in a number of African countries in the 1990s found that 33 per cent of manufacturing firms demanded credit, but their demands were rejected. Moreover, of the 55 per cent of firms that did not apply for credit, many needed it but did not apply, because they assumed their applications would be rejected. Both the firms that applied for credit but were rejected and those that

self-excluded from the credit market because they did not believe they would be successful are credit-rationed firms (Bigsten et al., 2003).

There is a two-way causality between size and access to credit. On the one hand, credit helps small firms to invest and grow. On the other hand, large firms have a better chance to access credit than small ones. Whereas 64 per cent of micro firms (those with five workers or less) applying for credit are rejected, the rejection rate drops to only 10 per cent for large firms (having more than 100 workers). Small and medium-sized firms (10 to 25 workers and 26 to 100 workers, respectively), have rejection rates of 42 per cent and 21 per cent, respectively. To some extent, this may reflect financial institutions' greater costs in dealing with small credit applicants, but it could also be due to the underdevelopment of the financial sector.

The degree of success in loan applications and raising initial capital by Kenyan small-scale and microenterprises is also partly associated with the owners' education and training (Green et al., 2007). Given that most such firms are family owned and stay in the same hands, this could be an additional reason explaining, at least in part, why small firms remain small and unable to reach the size required to participate in export markets.

The dominance of small firms in the manufacturing sector in Africa raises the question of access to inputs and firm growth: does access to financial resources, particularly credit, help firms to grow and reach the size that is compatible with exporting? There is some evidence supporting this hypothesis. Uganda experienced bank closures in the 1990s, as a result of imprudent lending practices. In the aftermath of these closures, the firms that lost relationships with banks experienced severe setbacks. Some of them were forced to downsize in order to survive, thus experiencing negative growth, while others simply collapsed (Habyarimana, 2003). In Kenya, among the manufacturing firms that survived the economic crisis of the 1990s, those firms that used credit grew faster than those not using it, illustrating the importance of credit constraints on firm growth (Nkurunziza, 2005b).

In the light of the finding discussed earlier that exporting firms tend to do so within their first few years of existence, evidence is needed to determine whether small firms with no participation in export markets have been able to grow into large export-oriented firms due to their access to credit. We are not aware of any study documenting the link between a firm's access to credit, growth and exporting in Africa; more research is needed on this.

D. Conclusion

Africa has taken significant steps to liberalize its trade regime, but with very limited manufacturing export response. Some analysts have attributed Africa's failure to increase manufacturing exports to the continent's natural comparative advantage in the production of primary commodities. This is a simplistic and flawed argument. There are circumstances where countries have changed their comparative advantage by choosing to invest resources in the production of new high-value products with better export potential. Instead, Africa has failed to increase its exports of manufacturing goods primarily because it has not addressed the most binding constraints to exporting, namely the weak supply capacity of African economies and poor trading infrastructure. Since trade liberalization has been successful in improving the trading environment, the focus now should be on addressing the structural constraints in African economies, to make them more responsive to export opportunities. This will require massive investments in productive and trading infrastructure, with a view to increasing the continent's competitiveness in the world market of manufactured products.

African countries could create a comparative advantage in manufactured products if they address the specific problems hampering the competitive production of these products. These problems include low levels of productive investment, low productivity, small size of manufacturing firms and limited access to production factors, particularly credit. A number of African countries, particularly oil exporters, currently have the financial resources at least to start this economic transformation process using their revenue from commodity exports. Meanwhile, it is doubtful that furthering trade liberalization alone without strengthening the productive capacity of African firms will substantially increase Africa's manufacturing exports.