

PA-ABZ-483

EQUITY AND GROWTH THROUGH ECONOMIC RESEARCH

Trade Regimes and Growth

TRENDS IN AFRICAN TRADE

DRAFT

May 28, 1996

**Abdoul Barry
Ndaya Beltchika**

The project under which this paper was prepared was funded by the U.S. Agency for International Development, Cooperative Agreement No. AOT-0546-A-00-5073-00, Equity and Growth Through Economic Research project, Trade Regimes and Growth component. The views and interpretations in this paper are those of the author and do not necessarily reflect the view of the U.S. Agency for International Development.

ASSOCIATES FOR INTERNATIONAL RESOURCES AND DEVELOPMENT

185 Alewife Brook Parkway, Cambridge, MA 02138-1101 USA

617 864-7770 TEL

617 864-5386 FAX

aird@world.std.com I/NET

BEST AVAILABLE COPY

A

TRENDS IN AFRICAN TRADE

Introduction

In the early 1960s, most African governments continued the colonial legacy and emphasized what the conventional wisdom considered their comparative advantage. They encouraged the production of crops such as coffee, tea, cocoa and plant fibers, and the extraction of mineral and forest products for exports. Since the early 1970s the economic performance of Sub-Saharan Africa (SSA) has been disappointing and the average per capita income declined sharply in the 1980s, suggesting that population grew faster than income. Even though external factors, such as bad weather and weak world commodity prices, played a role in the lackluster economic performance, much of the blame rests on policy-induced factors.

By the 1970s a growing number of African countries had adopted economic policies geared toward industrialization believed to be the engine of economic growth. This belief was largely influenced by Prebisch's (1959) theory of declining demand for primary commodities and secular deterioration of their terms of trade. Prebisch's theory was reinforced by Hirschman's (1958) backward and forward linkages thesis which gave precedence to the manufacturing sector over agriculture. The reasoning underlying these approaches was that agriculture is the reservoir of unlimited low productivity labor and that only the rate of capital accumulation in the modern sector can accelerate labor absorption and bring about economic growth. As a result of these theories, agricultural exports were downplayed and import-substitution industries were advocated in economic development strategies. The main thrust to promote import substitution was economic policies tailored to protect the nascent industries against "cheap" imports at the expense of the agricultural sector. Thus, inward-looking strategies were favored over outward-looking policies.

Implementation of these strategies was based largely on the assumption that government should play the dominant role to compensate for capital shortage and lack of managerial skills. Public enterprises were created, domestic prices were regulated, trade was restricted, and foreign exchange was allocated. In sum, the economic policies put in place were designed to encourage rapid industrialization and biased the incentive structure. Not only was the primary commodity sector taxed heavily by fiscal policies, but also it was greatly penalized by the overvalued exchange rates by making exports artificially expensive, while at the same time imports of industrial inputs and goods became relatively cheaper. High tariffs and quantitative restrictions were thus necessary to shield the local manufacturing sector from cheap imports.

Some of the distortions have been removed by the Structural Adjustment Programs (SAP) introduced in the early to mid-1980s by SSA's governments, under pressure from the international institutions from which they sought financial assistance. For instance, most African currencies were devalued and more flexible exchange rates (except in the CFA countries) were introduced. In addition, domestic price control were eliminated and most internal input and output markets were liberalized. Moreover, export taxes and import controls were either eliminated or reduced to ease trade barriers. However, there still remain impediments to expanding trade. Marketing boards still handle exports of primary products in some countries. In addition, a host of factors such as underdeveloped financial markets, infrastructure decay, and weak institutional capacity seriously hinder SSA's trade.

The focus of the present paper is to describe trends in African trade, including exchange between SSA

and the world market, and among African countries. The focal goods of the study are primary products (traditional exports and food crops, livestock, and mining), manufacturing goods and nontraditional export products. The paper focuses on explaining the underlying internal and external factors that contributed to or impeded African trade. Moreover, it aims to propose measures designed to help African countries to recapture the market share lost to other regions. It also intends to examine the conditions under which these countries can successfully venture into new opportunities in which they hold a strong comparative advantage.

II- Export Trends of Sub-Saharan African Primary Products

2.1 Trends in Exports of Traditional Primary Products

The overall trade performance of SSA has been disappointing over the years, especially after the mid-1970s in terms of annual growth, market share and product diversification. Available records show satisfactory trade performance for most SSA countries throughout the 1960s. Real exports from the region grew at 6 percent per annum between 1954 and 1969 (Helleiner, 1986). Imports also grew at nearly the same rate, according to table 1. In contrast to this period, SSA experienced poor export and import performances from the mid-1970s to 1992. The value of SSA's exports has increased marginally in the last one and one half decade but during the 1980s its annual rate of growth declined by 2 percent while world's exports grew at average of 6 percent per annum. It is also important to note that earnings for the five major oil-exporting countries have dominated trade trends in the region as a whole. In the 1980s, oil exports have accounted for about one half of SSA export earnings.

Table 1: Annual Average Growth Rates of Exports and Imports (%)

	1960s		1970s		1980s		1990-91		1991-92	
	Exports	Imports								
World	9.2	9.1	20.3	20.2	6.1	6.1	-0.4	-1.2	6.7	7.6
SSA	7.8	6.2	20.0	20.1	-2.0	-2.8	-3.1	10.2	-2.3	0.0

Source: Handbook on International Trade and Development Statistics, UNCTAD 1993, pp. 16-21

The export share of SSA have also exhibited a declining trend over the years, as shown in table 2. While this share was averaging 2 percent for both exports and imports during throughout the 1960s, 1970s and early 1980s, it gradually declined over the years to a low 1 percent in the early 1990s. African and Latin American countries lost their export market share to South and South East Asian countries whose share increased from a average of 6 percent in the 1960s to an average of 12 percent in the early 1990s.

Table 2: Share of World Exports and Imports

REGIONS	1960		65		70		75		80		85		90		91		92	
	X	M	X	M	X	M	X	M	X	M	X	M	X	M	X	M	X	M
Developed																		
America	20.3	16.6	19.0	16.1	18.9	17.3	15.9	15.5	14.2	15.4	15.6	21.7	14.6	17.4	15.4	16.7	15.3	17.3
Europe	39.2	41.0	41.4	44.4	43.2	45.1	41.1	42.4	39.8	43.6	39.4	38.4	46.5	46.4	45.8	47.0	45.6	45.6
Japan	3.1	3.3	4.5	4.1	6.1	5.8	6.4	6.4	6.5	6.8	9.1	6.4	8.3	6.6	9.2	6.7	9.3	6.2
Developing																		
America	7.7	7.2	6.8	5.9	5.5	5.5	5.2	6.2	5.5	5.9	5.4	3.9	3.9	3.2	3.8	3.6	3.6	4.1
LAIA	5.6	5.0	5.0	3.8	4.0	3.5	3.4	4.1	4.0	4.1	4.4	2.5	3.3	2.3	3.3	2.8	3.2	3.2
Africa	4.2	4.9	4.1	4.1	4.1	3.4	4.1	4.3	4.7	3.6	3.2	2.7	2.3	2.1	2.2	2.1	1.9	2.1
North	1.4	2.1	1.5	1.4	1.6	1.2	1.8	2.0	2.3	1.5	1.5	1.3	1.1	1.1	1.0	1.0	0.8	1.0
Others	2.8	2.8	2.7	2.6	2.4	2.2	2.3	2.2	2.4	2.1	1.7	1.4	1.2	1.0	1.1	1.1	1.0	1.1
Asia	9.5	9.7	8.5	8.7	8.1	7.8	14.6	10.1	17.8	12.3	14.3	13.1	14.9	14.3	16.3	16.5	16.9	17.3
West	3.4	2.5	3.4	2.3	3.4	2.0	9.4	4.0	10.6	4.9	5.1	4.5	3.7	2.9	3.5	3.3	3.4	3.6
South and South East	6.1	7.2	5.1	6.4	4.8	5.8	5.2	6.1	7.2	7.5	9.2	8.6	11.2	11.4	12.8	13.2	13.5	13.7

Source: Handbook of International Trade and Development Statistics, United Nations, pp. 28-29

Most SSA countries have made little progress in diversifying their export structure since the end of 1960s. A few countries were able to expand their export composition between the 1960s and the 1970s. Such was the case for Kenya and Côte d' Ivoire which increased the number of export commodities from 76 and 81 in 1970 to 143 and 154 in 1980, respectively (UNCTAD, 1989-93). By the early 1990s, the vast majority of SSA countries experienced a decline in their export composition, as shown in table 3. For instance, the number of export commodities for the two countries mentioned above shrank to 128 and 130, respectively. Only a handful of countries such as Mauritius, Zimbabwe and Madagascar increased notably their export commodities. For instance, Mauritius improved its export structure from 55 to about 100 commodities during the period 1980-91.

As displayed in table 3, the high concentration indices suggest that most of the SSA countries rely on a few primary commodities for their export earnings. These indices are confirmed by table 4 which shows the commodity share in SSA's export earnings during the period 1981-83. Petroleum accounts for, for example, over 90 percent of the export earnings of most oil producing countries. Non-oil producing countries depend to a large extent on a few commodities for their export earnings. For instance, the share of coffee and tea is nearly half of the export earnings in Kenya which is relatively diversified by African standards. This suggests that most SSA countries are highly vulnerable to external shocks arising from a fall in primary commodity prices.

Table 3: Export Concentration and "Diversification" Indices

Countries	Number of commodities exported (1)	1980		1991		
		Diversification index (2)	Concentration index (3)	Number of commodities exported	Diversification index	Concentration index
Nigeria	147	0.771	0.948	117	0.915	0.352
Angola	22	0.737	0.732	9	0.916	0.911
Guinea	23	0.951	0.905	22	0.958	0.358
Zambia	49	0.959	0.717	45	0.932	0.323
Gabon	46	0.732	0.763	39	0.913	0.770
Niger	39	0.947	0.821	44	0.915	0.763
Chad	15	0.962	0.794	18	0.951	0.729
Congo	29	0.765	0.890	26	0.886	0.707
Uganda	22	0.953	0.950	26	0.948	0.699
Rwanda	13	0.959	0.668	14	0.960	0.688
Malawi	47	0.925	0.490	29	0.925	0.686
Burkina F.	43	0.891	0.476	22	0.941	0.698
C.A.R.	15	0.946	0.415	24	0.931	0.634
Mauritania	24	0.955	0.661	24	0.950	0.624
Ethiopia	30	0.896	0.636	29	0.934	0.617
Benin	30	0.875	0.415	31	0.359	0.580
Sierra Leone	39	0.922	0.444	18	0.954	0.563
Mali	40	0.909	0.477	33	0.918	0.559
Guinea Bissau	22	0.903	0.331	10	0.941	0.551
Togo	51	0.890	0.468	51	0.889	0.506
Sudan	63	0.923	0.388	44	0.893	0.482
Somalia	14	0.929	0.767	19	0.904	0.480
Zaire	62	0.760	0.450	42	0.368	0.409
Ghana	55	0.915	0.729	56	0.907	0.377
Mauritius	55	0.903	0.688	101	0.844	0.335
Zimbabwe	87	0.852	0.257	165	0.782	0.327
Cote d'Ivoire	154	0.850	0.383	130	0.956	0.312
Kenya	143	0.812	0.383	128	0.906	0.309
Madagascar	53	0.845	0.501	76	0.911	0.295
Senegal	113	0.810	0.271	92	0.957	0.280
Cameroon	90	0.720	0.409	116	0.777	0.272
Tanzania	83	0.835	0.286	74	0.932	0.262

Notes: (1) The countries are ranked according to the concentration index in 1991

(2) Number of products exported at the three-digit SITC, revision 2 level. This figure includes only those products which are greater than \$50,000 in 1980 or \$100,000 in 1991 or more than 3% of the country's total exports.

(3) The concentration index discriminates more finely between countries which are relatively more concentrated in their export structure. The diversification index discriminated more finely between countries which diversified.

Source: Handbook of International Trade and Development Statistics, UNCTAD 1993, pp. 241-43

Table 4: Commodity Share of Country Total Exports in 1981-83

Countries	Cocoa	Coffee	Tea	Sugar	Groundnuts	Cotton	Timber	Tobacco	Petroleum	Minerals, & Metals	Total of Commodities
Angola		6.1				0.1		0.3	93.1	0.1	99.7
Benin	14.2	12.1				20.7					47.0
Botswana						0.1				4.6	4.7
Burkina			0.1	0.1	0.3	45.0					45.5
Burundi		91.2	3.2			2.8					97.2
Cameroon	13.1	16.7	0.1	0.4		3.8	8.9	0.5			43.5
C.A.R		28.7				7.2	25.4	0.9			62.2
Chad						60.7					60.7
Congo	0.3	0.4		0.3			3.1		93.1		97.2
E. Guinea	71.5	5.5					18.5				95.5
Ethiopia		61.5		0.7							62.2
Gabon	0.3	0.1							69.0	4.9	74.3
Gambia					30.7						30.7
Ghana	41.9	0.3					1.6		0.5	0.8	45.1
Guinea	1.2	2.2								52.0	55.4
Guinea-Bi					23.7	5.3	1.0				30.0
Ivory-Coast	24.2	19.4		0.8		3.0	13.7		2.2		63.3
Kenya		23.9	15.6	1.4		0.2	0.1				41.2
Liberia	2.4	4.2					9.5			63.0	79.1
Madagascar	0.8	32.8		2.5	0.1	1.5	0.1	0.3			38.1
Malawi		0.5	16.9	19.8	2.5	0.3		49.8			89.8
Mali					0.3	38.6					38.9
Mauritania										54.7	54.7
Mauritius			1.9	59.9							61.8
Mozambique			7.9	5.5	0.5	8.1	1.8				23.8
Namibia										45.7	45.7
Niger										0.1	0.1
Nigeria	1.7								90.5	0.2	92.4
Rwanda		66.6	8.7								75.3
Senegal					1.0	2.1				11.2	14.3
Sierra Leone	9.6	9.2						0.1		5.4	24.3
Somalia											0.0
Sudan					7.9	27.6					35.5
Swaziland				35.2		2.2	4.6				42.0
Tanzania	0.5	29.8	4.3	0.5		13.3	0.2	3.5		0.9	53.0
Togo	11.0	9.0				8.2				46.5	74.7
Uganda	0.1	94.0	0.2			1.8		0.1			96.2
Zaire	0.5	11.6	0.2				1.0	0.1	19.0	65.5	97.9
Zambia				0.2		0.3	0.5	0.4			95.8
Zimbabwe		1.4	0.7	5.2	0.2	6.1	0.5	20.0		2.3	36.4

Source: Commodity Trade and Price Trends, IBRD/WB, pp. 22-23.

Looking at SSA's export performance on a product basis, Koester et al. (1990) found that coffee and cocoa are by far the most important export commodities for SSA and accounted for over 50 percent of the value of agricultural exports throughout the period 1960-85. While world cocoa exports grew marginally during the past three decades, SSA cocoa exports decline in the 1960s and 1970s and increased by an average annual rate of 3 percent from 1980 to 1992 (Svedberg, 1990). In the six most important markets of coffee, cocoa, beans, refined copper, timber, and sugar, the decline was in the 22-38 percent range over the period 1970-85. The most dramatic decline in the share of SSA, according to Stryker and Baird (1991), was experienced with vegetable oils, averaging over 60 percent between the period 1961-65 and 1986-88. This decline in vegetable oil market is confirmed by Badiane (1994) who examined the export performance of the member countries of the African Groundnut Council (AGC) during the same period. According to him, AGC's loss of world market share was also accompanied by a continuous decline in yield and acreage in its member countries. Meanwhile, Asian and South American countries increased yields and more than quadrupled their combined market share of groundnut world market.

Crude oil is the only major export product from SSA that has developed favorably since 1970. In 1970 it accounted for less than 10 percent of total exports from the region and by 1985 the share of this product in total exports climbed to over 50 percent. Growth of the world oil market, and the increased SSA share, contributed substantially to the region's total export-earnings growth. In contrast to crude oil, SSA lost its market share in many metals and minerals, including copper, tin, chromate, and diamonds. For instance, SSA's market share of iron ore declined by nearly 50 percent between the 1960s and the mid-1980s (Svedberg, 1991).

There was a large variation in countries' performance over the years. Côte d'Ivoire, for example, increased its exports of cocoa almost threefold between the 1960s and the 1980s, whereas Ghana and Nigeria's exports fell by almost 50 percent during the same period. Similarly, Kenya, Zaire, and Zimbabwe experienced substantial growth in coffee exports, when Madagascar's and Guinea's exports of coffee declined. During the same period, most African countries, especially Nigeria and Senegal, experienced a dramatic decline in their groundnut exports over the years. The most significant development was the change of Nigeria's position from the world's largest exporters of groundnuts to a net importer mostly because of the oil boom of the early 1970s. The Côte d'Ivoire continues to be the world's leading producer of cocoa and the fourth largest producer of coffee. The drastic fall in export prices has reduced their importance in total export earnings from about 52 percent in 1989 to 34 percent in 1990.

Most SSA countries have made limited progress in diversifying their trading partners. As shown in table 5 destination of SSA primary exports, especially traditional agricultural products, have been concentrated in the member countries of the Economic Cooperation and Development (OECD). These countries appear to receive over two-thirds of SSA's major agricultural exports. Of these countries the European Economic Community (EEC) accounts for as much as 60 percent of SSA's exports. Africa's export concentration to Europe, in particular to the EEC, largely reflects the colonial heritage and the Lomé Convention. This convention was designed to guarantee African and Caribbean and Pacific countries free access to the European market without the condition of

Table 5: Africa Direction of all Food Exports

Years	World Total	Developed Market Economies				Centrally Planned Economies	Developing Africa	Other Developing Countries
		EEC	US & Canada	Japan	Others			
1960	100	n.a.						
1965	100	58.6	9.7	0.5	1.5	2.4	9.5	n.a.
1970	100	54.2	13.7	0.9	0.8	5.7	7.9	12.4
1975	100	49.7	11.3	3.1	4.0	8.4	9.5	14.0
1980	100	54.4	10.5	2.6	4.3	9.5	7.6	11.1
1983	100	50.1	10.1	4.3	4.1	8.1	9.0	14.3
1984	100	51.7	10.1	3.4	4.7	7.2	8.6	14.2
1985	100	53.3	8.8	4.1	3.6	7.9	9.7	12.6
1986	100	61.8	8.7	4.9	4.4	5.8	8.4	6.0
1987	100	59.4	7.9	5.1	5.3	7.1	9.2	6.0
1988	100	59.1	8.2	5.3	4.4	6.4	9.3	7.3
1989	100	58.5	6.4	6.2	4.9	6.3	10.9	6.8
1990	100	60.7	6.5	5.7	4.3	3.9	11.3	7.6

- Notes: (1) Includes countries of European Free Trade Association
(2) Includes countries of Eastern Europe and Socialist countries of Asia
(3) Includes all countries of Africa, except South Africa
(4) Includes developing countries of Europe, Latin America, Asia, and Oceania

Source: Africa's and South-East Asia's Agricultural Export and Import Markets, ECA/FAO Agricultural Division, Monograph No. 7, p. 9.

reciprocity¹. The EEC is followed by both the US and Canada with 6 percent of SSA's export market share, while Japan accounts for 4 percent of this market share. Important questions loom for SSA with the end of Lomé IV Convention and implementation of new rules under the auspices of the World Trade Organization (see survey paper on Promoting New Trade Opportunities for Africa).

Much of the SSA's exports of fruits and vegetables, cotton and tea went to developing countries outside North Africa and the Middle East and SSA. The combined share of these regions in SSA's exports of fruits and vegetables, cotton, and tea was 15, 17 and 13 percent, respectively. Meanwhile, North Africa and the Middle East accounted for 40 and 59 percent of SSA's live animal exports.

The sluggish performance of the export sector in most SSA countries seems to have caused serious problems. Imports have been compressed, as shown in table 1. Given the composition of imports, which include mainly industrial and investment goods, intermediary products and fuels, capacity utilization and growth have declined notably in most countries. (source) This, in turn, has affected the export sector negatively, even though the direct causality is not known. In depth research in this area will certainly shed some light on the adverse effect of capacity utilization on export performance and will help to make predictions on SSA's performance.

2.2 Reasons for Stagnation and Decline: Demand and Supply side factors

The slow down of SSA's export growth has been tentatively explained by two largely opposing schools of thought. The first one emphasizes external factors such as both the slow growth in the volume of world primary commodity market and deteriorating terms of trade (Lewis, 1980; Chu and Morisson, 1984; Cable, 1988; and Wangwe, 1993). For instance, Wangwe's study of the EEC and US cocoa markets to which Africa contributes nearly 50 percent of exports showed that consumption grew by 12 and 19 percent, respectively over the twenty-year period of 1960/65-1980/85. This study also showed that export earnings from the nine major primary commodities (coffee, cocoa, cotton, tea, sugar, palm oil, groundnuts, tobacco and fresh fruits) of SSA fell by nearly 40 percent between 1977/79 and 1985/90, despite a 75 percent increase in the volume of exports. This suggests that the terms of trade deteriorated over the above-mentioned period of 1977/79-1985/90.

The other school underscores factors that are "internal" to SSA countries. The rationale of this school is that some African countries performed better than others in the continent, although the terms of trade significantly eroded over the years for most primary commodities (Balassa 1990). Even more important in this line of reasoning is the ability of other countries outside of SSA to expand their world market shares under the same unfavorable conditions that SSA faced. For instance, respective shares of world cocoa exports for Cameroon, Ghana, and Nigeria declined from 6.4, 16.3 and 12.2 percent in 1981-83 to 5.5, 14.3 and 7.2 percent in 1985-87. In the meantime, Indonesia and Malaysia have both increased their shares from .8 to 1.9 percent and from 4.1 to 6.9 percent respectively for the same periods (Commodity Trade..., 1986, 89-91).

The role of economic policies in adversely affecting SSA's export performance has been well

For some important products, such as sugar, bananas, rum, and beef special preferential measures were adopted. Under the Lomé Convention, ACP countries also benefit from the Stabex and the Sysmin. The Stabex supports 49 agricultural and fishing products by compensating for losses of earnings by ACP countries. The Sysmin supports mining activities, mainly in the public sector, in situation of temporary crisis. The Lomé IV convention is due to expire in 2000.

documented. Tolley et al. (1982), the IMF (1989), and the World Bank (1989) have argued that internal factors such as excessive import protection, overvalued exchange rates and high rates of taxation on exports are to be blamed for SSA's lackluster export performance because they contributed to reduce domestic prices for export commodity producers. Schiff and Valdés (1988), summarizing the seminal work undertaken by a group of economists for the World Bank, noted that African farmers faced the world's heaviest rates of taxation that induced price distortions and disincentives in the agricultural sector. African farmers were taxed explicitly through producer-price fixing by marketing boards. Such was the case of cotton and coffee in Uganda, cocoa in Côte d'Ivoire and Ghana, tea in Kenya, and tobacco in Malawi and Zimbabwe. The aim of the parastatals was to stabilize domestic prices of exports. But, they eventually set domestic prices well below the international equivalent prices and ultimately they reduced the profitability of exports to producers. In addition to price fixing by parastatals, farmers incurred high export taxes that were an important source of government revenues. Agricultural inputs were also taxed, notwithstanding subsidies that were mostly enjoyed by a few large farmers. The explicit taxes were, according to Schiff and Valdés, highest in Ghana and averaged 27 percent. Meanwhile, they amounted to over 20 percent in Côte d'Ivoire. In both countries, they contributed to reducing African farmers' profitability.

Schiff and Valdés also showed that African farmers were taxed implicitly through overvalued exchange rates, which depressed the domestic prices they obtained for their exports. Implicit taxation was also caused by high levels of industrial protection which contributed to raise consumer prices. The evidence showed that the three broadly representative SSA countries (Côte d'Ivoire, Ghana, and Zambia) taxed their farmers over 50 percent, while the countries of the highest per capita income protected agriculture. In addition, the evidence indicated that these three Sub-Saharan countries taxed their farmers 70 percent more than the average for non-African developing countries. Similar results of the adverse effects of macroeconomic policies on the agricultural incentive structure were revealed by research undertaken by Oyejidi (1986), Tshibaka (1986), and Badiane (1994). As a result of the macroeconomic policies, SSA's average annual rate of agricultural growth declined from 2.2 percent in 1965-73 to a mere 1.0 in 1981-85 and its export market declined markedly (Cleaver, 1993).

There is another body of literature that credits the poor SSA's export performance to internal and external factors (Lyakurwa, 1991; ADB, 1993; and ECA, 1993). They argued that although shortcomings in macroeconomic policies were the predominant causes of the poor export performance of most SSA countries, the demand side affected adversely the level of exports. While the terms of trade index declined from 97 in 1982 to 71 in 1987, the purchasing power of exports declined from 72 to 58 over the same period. According to Erzan and Svedberg (1988), the price decline of primary products accounted for about a third of the overall world market share loss of sub-Saharan Africa. The remaining two-thirds was due SSA's failure to expand exports.

As a result of the sluggish exports, imports have been compressed and exacerbated further the declining export performance. Most SSA countries are highly import-dependent and output level is rigidly linked to imports of intermediate goods (including fuels) and of capital goods such as machinery and capital equipment. Thus, the lack of foreign exchange further compromised SSA's ability to produce for exports (The World Bank, 1992). That was the case for the mining sector which, as noted by the World Bank (1989), faced insufficient investment by the state-controlled enterprises to replace depleted reserves and to maintain and modernize the mining infrastructure. This has resulted in aging operations which are no longer competitive or able to respond flexibly to changes in market conditions. According to the World Bank, the reason for the low level of investment in exploration can be traced to the early 70s when state-controlled enterprises dominated

the mining sector and inhibited private initiative. The state-owned enterprises imposed restrictions on ownership, cumbersome regulatory procedures, and unattractive taxation arrangements, even though mining depends on high-risk investment in exploration. As a result, many international mining companies turned away from SSA to the benefit of regions where the investment climate was more conducive to high-risk capital.

The World Bank (1989) noted further that stagnation in SSA's mining can be explained by not only low investment stemming from an unsupportive policy environment, but also management deficiencies, shortage of technical skills, and political interference. In addition, SSA's mining companies, unlike those of other regions of the world such as Australia or Canada, face difficult infrastructural problems and high exploration costs, owing to the need for technical expatriate staff, imported equipment, lack of local contractual services, and the total absence of support facilities. There are, nonetheless, better chances of discoveries in Africa.

A resurgence in Sub-Saharan African mining, in the export sector in general, will depend largely on the necessary enabling environment which will be put in place by African governments. The main elements of an enabling environment relate to realistic foreign exchange regime, taxation, repatriation of profits, and the regulatory and institutional framework. With a distorted policy and institutional environment, economic agents are given a powerful incentive to engage in rent-seeking activities that generally lead to smuggling and inefficient resource allocation. For instance, up to 98 percent of the profit earned by the Tanzania diamond industry are believed to come from sales of smuggled stones. Similarly, as much as 80 percent of the Zairian diamond annual output is believed to be smuggled abroad (Africa analysis 9 February 1996).

2.3 Impact of Structural Adjustment on Traditional Sub-Saharan African Exports

Against this background of deteriorating export performance and economic decay in SSA, structural adjustment programs (SAP) were introduced as a condition for assistance to put African economies on a growth path. Achieving this goal required altering the incentive structure by opening the economy to international trade to improve the competitiveness of the export sector and generate the badly needed foreign exchange to finance imports and economic development. The SAP relied on a host of policy instruments comprising: (1) devaluation and more flexible exchange rate; (2) reduction or elimination of export taxes; (3) easing or elimination of import controls; (4) reduction in the magnitude and variability of import tariffs; (5) elimination of both price controls and restrictions on private marketing; (6) privatization or reform of government parastatals; and (7) reduction of public sector employment (Stryker et al., 1994).

The World Bank (1994), in a broad-based study designed to draw lessons from the SAP, found that nearly two-thirds of Sub-Saharan African countries have reduced the overall tax burden on the primary export sector. The assessment of this organization is that, although great efforts have been deployed to link producer prices to world prices, marketing boards still operate alongside private marketing agents in many countries. For instance, the Ghana Cocoa Board began privatizing its holdings in 1990 but few buyers were interested because the Cocoa Board retained a monopoly power over local purchases and control over exports. Complete liberalization has not, thus, been achieved in most countries and makes it difficult to gauge the impact of structural adjustment. The difficulty is compounded by the fact that many of the adjusting countries have experienced a severe decline in export prices, export earnings, and the terms of trade during the adjustment period (Stryker, 1991). For instance, the real international prices of SSA's two major exports, cocoa and coffee, dropped by

almost 70 percent between 1980 and 1990. The real price of cotton, the third major export crop, fell by 28 percent during the same period (World Bank, 1994). Even though government market interventions in the form of marketing boards have been considered as a major hindrance to exports, because of the multiplicity of their roles withdrawal should be gradual. In some instances their quick removal lead to a decline in the quality of exports. In Tanzania, liberalization has contributed to a fall in quality of export coffee threatening export markets.

2.4 Comparative Advantage in Primary Export Products

A vast body of literature has covered SSA's comparative advantage and competitiveness in export crops. Barry (1994 and 1992), Stryker et al. (1992 and 1987 a and b), SOGES and AIRD (1991), Barry et al. (1991), Holleman (1991), Kristjanson et al. (1990), Delgado (1990), and Stryker et al. (1987 a and b) have all shown that SSA has a strong comparative advantage in its traditional export commodities, namely cocoa, coffee, cotton, groundnuts, palm, rubber, etc. Yet, SSA was unable to take advantage of its agricultural resources and experienced a disappointing export performance over the years, especially during the 1980s. The reform programs described above are designed to lay the ground for exploiting and producing along the line of comparative advantage. SSA's future comparative advantage in these commodities will depend to a large extent on world market conditions in the long run, as shown by Kristjanson et al. and on the ability of the region to remove the supply constraints.

World market conditions differ sharply from one commodity to another. For instance, it is believed that continued growth in the market for natural fibers will contribute to brighten prospects for African cotton exporters. Cotton prices are anticipated to rise in the long term because of the increasing demand for natural fibers. The forecast for coffee market suggests a stronger market for robusta and arabica coffee, with overall prices increasing from levels that prevailed before the break down of the International Coffee Agreement (ICA). In contrast to cotton and coffee, it is believed that rapid growth in production of lower cost competitive vegetable oil will make the outlook less promising for African groundnuts.

Since SSA has lost important world market share and cannot influence world prices because it is a price taker, it must focus attention on reducing factor costs by making the necessary investments to improve productivity. Moreover, efforts should focus on improving distribution and processing efficiencies and designing policies that do not heavily tax producers and distort the incentive structure in favor of the import substitution sector. In this regard, countries that still rely on high-cost parastatals need to seriously assess the long-run benefits and costs associated with parastatal marketing services.

It appears from the survey of the mining sector that very little work has been undertaken to assess SSA's comparative advantage. Even though one may assume that SSA hold a comparative advantage in mining, research attention needs to focus on this sector to identify bottlenecks and propose measures to overcome constraints. Research in the mining sector can shed light on the debate over the scale of operations in which SSA can invest its limited resources. Some analysts have proposed that SSA invest in small-scale mining because it is labor-intensive and relatively affordable in view of the lack of both capital and managerial know-how in SSA. Others have argued that large-scale and capital-intensive production will be more beneficial for SSA since it will enable the region to import production techniques. The underlying assumption in the latter view is that large-scale production will enable SSA to acquire new techniques and capture economies of scale in the long-run. Even

though there is some truth and validity in each of the view, it will be important to undertake an analysis of SSA's comparative advantage to help heighten and focus the ongoing debate.

III. Trends in Sub-Saharan African Food Imports

Contrary to observed trends in most parts of the world, food production in sub-Saharan Africa has failed to meet the demand of its growing population. This region has seen many instances of famine and has been one of the most famine-prone regions in the world. According to Cleaver (1993), the population of SSA grew by 2.7 per cent per annum over the period 1965-80, while total food production increased by a mere 1.7 to 1.9 percent annually during the same period, thus precipitating a decline in per capita food production.

Matlon and Spencer (1984) and Stryker and Baird (1991) suggested that the decline in per capita food production is deeply rooted in the inadequate technologies used in SSA. The technological breakthrough that took place in Asia under the "Green Revolution" has had limited applicability in SSA. Technological packages of irrigation, improved varieties, fertilizers, and other chemicals, which were highly successful in Asia, have not proven to be as viable in Africa as in Asia. Investments in irrigation in SSA have proven to be expensive, often \$20,000/ha higher in SSA than other regions. Returns to fertilizers have proven marginal given SSA's pricing system and its distorted incentive structure described earlier. Furthermore, SSA's supporting institutions and infrastructure necessary for distribution of improved inputs, as well as output, are extremely weak. As a result of the lack of inputs and the marginal returns to fertilizers, cultivated areas have expanded onto marginal land, while fallow periods are being reduced to respond to the increasing population pressure, thereby reducing further productivity.

Koester et al. (1990) estimated that SSA produced an estimated 90 percent of its cereal needs in 1970, but it satisfied only 76 percent of those needs in 1985 and its cereal coverage is projected to decline to 57 percent by the turn of the century. This decline, combined with rising urbanization has resulted in growing food imports. For instance, total cereal import rose from 13.4 million tons in 1970-71 to 19.5 million tons in 1982-83 (Koester et al., 1990). Imports of food, especially cereals, were heavily concentrated in ten countries whose consumption pattern shifted from traditional staples to maize, rice, and wheat (ECA/FAO, 1994). These imports need to be distinguished, however, into commercial imports and food aid.

3.1 Commercial Food Imports

Countries belonging to the Organization of Economic Cooperation and Development (OECD) accounted for 72 percent of imports into SSA. These countries were the major suppliers of SSA's imported food grains, the most important of which are rice, wheat and maize between 1976/80 and 1981/84. Koester et al. (1990) estimated that the share of OECD countries in SSA's imports of rice, wheat and meslin, and maize was 36, 67, and 49 percent, respectively during the above-mentioned period. Together, these commodities increased their share of total imports from 20 percent in 1962/65 to 34 percent in 1981/84.

Following 1984 rice and maize were almost entirely imported from developing countries outside of SSA. These imports were particularly encouraged by the overvalued African currencies that penalized local production. While maize dominates food imports in Eastern and Southern Africa, the

bulk of rice, wheat and wheat flour is imported by West and Central Africa. For instance, rice, and wheat and wheat flour accounted for 57 and 36 percent of West African cereal imports in 1986, while the share of maize and other coarse grains was only 7 percent (INRA-IRAM-UNB, 1991). The share of coarse grain imports into West Africa is variable and contingent on rainfall level.

Food imports are significantly less concentrated than agricultural exports. The top five commodities accounted for 48 percent of total agricultural imports, compared with 72 percent of the top five export commodities.

3.2 Food Aid to Sub-Saharan Africa

Food aid has been a means to mitigate fluctuations in SSA's volatile food production. The United States is the most dominant food donor country. Mellor and Pandya-Lorch (1991) estimated that the US provides, for instance, two-fifths of the cereals food aid delivered to the member countries of MADIA (Managing Agricultural Development in Africa)². The European Community is the second largest donor providing food aid to SSA. Food aid granted by both donors emphasized coarse grains in the 1970s. Since then food aid has shifted toward maize, and especially wheat and rice, a reflection of the shift in food consumption in SSA. The principal reason for the shift in food consumption toward rice and wheat, as noted by Delgado (1987), is the rapid urbanization which has resulted in a shift of consumer preferences toward more convenient food items.

IV- Trends in Manufacturing Products

4.1 Characteristics of the Manufacturing Sector under Import Substitution Policies and Impact on the Structure of Trade

In recent years, the manufacturing sector has contributed less than 10 percent to GDP for most SSA countries as shown in table 6 and has provided employment to only 9 percent of the population. Manufacturing growth appears to have stalled despite the promising signs it exhibited in the 1960s. During this period manufacturing value-added grew by over 8 percent per annum and it contributed over 15 percent to GDP (The World Bank, 1989). The standstill observed in the manufacturing sector is by in large caused by the strategies put in place by policy makers to accelerate industrialization in SSA.

(Stryker et al., 1994) identified two distinct industrialization strategies in SSA, notably resource-based industrialization and import substitution. The former, building on the base of a country's comparative advantage in the exports of primary products (mining, agriculture, forestry, and tourism), seeks to intensify, expand, or diversify those activities. On the other hand, political criteria rather than economic rationale have guided most investment, location and management decisions in the import substitution strategy.

Import substitution has relied on heavy protection (high tariffs and quantitative restrictions) to enable

MADIA is a research project which was undertaken by the World Bank in collaboration with seven other donor agencies to determine the sources of agricultural growth in six Sub-Saharan African countries (Cameroon, Kenya, Malawi, Nigeria, Senegal, and Tanzania).

Table 6: Value Added in Manufacturing as a Percentage of GDP.

	1980	1984	1985	1986	1987	1988	1989	1990	1991	1992
Sub-Saharan Africa excluding Nigeria										
Benin	4.6									
Botswana	4.1	5.9	4.8	5.2	6.0	5.1				
Burkina	9.7									
Burundi				7.7	8.4	9.6	9.8	9.2	9.7	
Cameroon	9.5	9.0					7.1	6.8		
Central African	3.0		4.6	2.4	3.0	3.7	3.9	4.8		
Congo		3.0	2.5	4.2	3.0	3.8				
Cote d'Ivoire	12.5									
Ethiopia	11.2	11.6	12.1	12.2	12.8	13.2	12.4	12.6		
Gambia, The	4.8									
Ghana	5.5	4.2	7.5	9.4	10.4					
Kenya	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	
Lesotho	3.8	9.4	8.6							
Madagascar	5.5	5.2	4.4	4.4	3.8	3.4				
Malawi	9.9	10.4	7.9	6.4						
Mali	9.8									
Mauritius	12.0	13.9	16.0	18.4	19.5	19.4	18.9	18.7	19.4	
Niger	1.2	7.0	7.1	7.5	8.4	8.3				
Nigeria		7.4	8.3							
Rwanda		4.7	9.0	9.9						
Senegal	8.8	8.8					6.5			
Seychelles	6.6	8.4	8.6	8.3						
Sierra Leone			3.6	2.7						
Somalia				1.4						
South Africa	23.0	23.3	22.4	20.9	21.4	21.9	22.3	22.3	22.0	
Tanzania	7.0	4.9	4.0	4.0	3.9	3.4				
Togo	3.7	3.5								
Uganda							3.0			
Zambia	20.1	19.8	22.1	21.9	27.1	28.2	26.5	23.6	29.9	
Zimbabwe	27.7	29.8	28.2	32.0	33.8	33.7	37.8	35.3	34.9	36.2

Source: African Development Indicators 1984-85, The World Bank, p. 258.

local industries to compete against more efficient foreign firms in the domestic urban market. To prevent unit costs from rising and make manufactured goods affordable to urban consumers, SSA governments have used extensive regulations and wage controls, and overvalued exchange to help domestic firms import the badly needed inputs. Import substitution has been characterized by political criteria rather than economic rationale to guide the choice of investment, location and management. Over time, this inward-looking strategy discouraged foreign investments and, as noted by Balassa (1989), it discriminated against exports and did not permit the development of manufactured exports.

In spite of the caution which must always go with examining the available data to compare SSA with other regions, there seems to be little doubt that the level of manufacturing development in SSA is the lowest in the developing world. The gap between SSA and the rest of the world appears to have widened considerably over time, especially in recent years. The evidence from Riddel's (1990) analysis, based on World Bank data, suggests that, while the ratio of manufactured exports from developing economies to world manufactured exports rose from 8.4 percent to 15.6 percent over the period 1965-86, the ratio of manufactured exports from SSA to world manufactured exports fell from 0.38 to 0.23 percent over the same period. Analysis of the same data also suggested that SSA's share of manufactured exports from all developing countries manufacturing export fell from 4.6 to 1.5 percent over the same period. These trends were confirmed by trade data compiled from UNCTAD.

Analysis of the data compiled by the United Nations Economic Commission for Africa seems to suggest that the performance of the industrial sector in terms of the growth rate of manufacturing value-added (MVA) was also disappointing. If a somewhat arbitrary 5 percent annual increase in MVA is taken as a norm against which to judge performance, the number of countries that exceeded this cut-off point declined drastically over the years. For instance, whereas in the first period (1963-73) 34 out of 43 of the countries had annual growth rates of MVA in excess of 5 percent, in 1973-9, the number dropped to 13. In 1979-86, the number of countries had fallen to just 10 countries. Over the entire period 1963-86, only four countries in SSA exceeded this rate of growth.

As with the breakdown of total MVA by country, Riddel (1990) indicated that the bulk of manufactured exports originated from only a handful of SSA countries. In 1986, only 8 countries contributed 63 percent of all manufactured exports from the region. Nigeria accounted for 38 percent of MVA in SSA. This country, combined with 6 other countries (Cameroon, Côte d'Ivoire, Ghana, Kenya, Zambia and Zimbabwe) account for 66 of MVA in SSA. At the other end, the combined MVA of 23 other countries amount to only 7 percent of the MVA of SSA.

As shown in table 7, the structure of manufacturing in terms of sub sector shares appears to have not changed much over time in SSA. Indeed, data compiled by the World Bank in 1985 to give a crude breakdown of manufacturing into broad sub-sectors suggested a low level of diversity of manufacturing in much of SSA. A complete absence of machinery and transport equipment and the dominance of food, beverages, textiles and clothing manufacture can be noticed. It appears that half of SSA's manufacturing was concentrated in the food, beverages and textiles branches in the mid-1980s. Chemical, and machinery and transport equipment accounted for 8 and 10 percent, respectively in the same period. The MVA of these latter groups of manufacturing was dominated by the top 7 countries, averaging 75 percent of the total SSA value-added in these sub-sectors. The remaining 25 percent originated from 40 countries.

Table 7: Structure of Manufacturing Value Added of Sub-Saharan Africa, Excluding South Africa

	Food, bev. & tobacco			Textile &			Machin & transp. equipt.			Chemicals		
	1975	1980	1990	1975	1980	1990	1975	1980	1990	1975	1980	1990
Benin				15	14		0	0		3	6	
Botswana	0	43										
Burkina	62	59		13	19		2	3		2	1	
Burundi			83			9						2
Cameroon	49	56	61	16	9	-13	7	4	5	8	3	5
Central African Rep.	47	49	57	0	0	0	4	8	2	4	11	6
Congo	54			3			2					
Cote d'Ivoire	27	35		16	14		9	10				
Ethiopia	41	49	48	36	29	20	0	0	2	4	3	4
Gambia, The	95	35		1	2		0	0		1	3	
Ghana	34	37		14	11		4	2		5	5	
Kenya	34	34	38	10	12	10	12	15	10	10	9	9
Lesotho											4	
Madagascar	32	27		36	44		7	5		8	5	
Malawi	49	58		14	12		4	4		10	5	
Mali	32	29					3	8				
Mauritius	65	36	23	13	30	50	6	6	3	4	6	5
Niger		30			25			2			16	
Nigeria												
Rwanda												
Senegal	48	50		20	19		4	4		7	8	
Seychelles												
Sierra Leone												
Somalia	43			8						2		
South Africa				11	9	9	20	21	16	9	9	10
Tanzania	33	23		23	33		8	8		6	6	
Togo	37	47		33	13					4	8	
Uganda												
Zambia	42	44	44	9	13	13	10	9	7	10	9	11
Zimbabwe	20	23	29	16	17	16	10	8	7	10	9	8

Note: Sector does not add up to 100% due to unclassified others that are left out.

Source: African Development Indicators 1994-95, The World Bank, p. 259.

Dominance of consumer rather than intermediate or capital-intensive manufacture seems to suggest that SSA's manufacturing is relatively simple in technique and that little structural change has taken place since independence.

4.2 Causes for the Poor Performance of Manufacturing

The conventional wisdom suggests that the poor performance of the manufacturing sector is due to its principal role assigned in SSA. Plants and factories were established to manufacture goods predominantly for the domestic markets, with the twin goal of replacing imports and reducing the overall import bill. This drive resulted in, as argued by Riddel (1990), the increasing isolation of the SSA enterprises from the dynamics of efficient change occurring elsewhere. Manufacturing in SSA suffered also from the unsustainable imports of raw materials, spare parts and equipment, owing to lower levels of export earnings and restrictive access to foreign investment and commercial finance. As a result, productive efficiency in SSA lagged behind that of other regions and was increasingly determined by what were becoming obsolete techniques and out-dated machinery. The resulting inefficiency was exacerbated by a personnel which was out of touch with new techniques and lacked technical and managerial skills.

Manufacturing in SSA was also adversely affected by the low level of capacity utilization resulting from a narrow domestic market and a fall in real income, due to the decline in export earnings. Politically-motivated decisions rather than economic rationale to establish profitable firms and politically-inspired pressures to promote state-owned industries without both adequate overall planning, and supportive infrastructure and institutions contributed substantially to perpetuating inefficient industries. Apparently, the inward-looking industrialization failed to take into account how import substitution industries could be articulated with other productive sectors of the economy and failed to incorporate into its strategy the dynamic inter-linkages between manufacturing sub-sectors.

4.3 Prospects for Trade of Manufactured Products

With the advent of the structural adjustment programs most Sub-Saharan African countries have launched reforms to reverse the dismal performance of the manufacturing sector. In the near future, substantial and systematic expansion in manufacturing is likely to be constrained by shortages of foreign exchange necessary for the importation of new plants and equipment. The manufacturing sector will also be hampered by the poor investment climate and, in some countries, shortages of skilled labor. Continuing budgetary constraints will likely inhibit any major new financial initiative to subsidize manufacturing exports. The constraints highlighted are likely to continue in the near future.

Sub-Saharan Africa can draw useful lessons from the experience of the Newly Industrialized Countries (NICs), as shown by Eager/Trade survey paper 96 "Lessons from East Asia for Promoting Trade in Africa" by Engel. These countries have shifted their manufacturing sector toward high-growth and competitive enterprises by gradually setting the stage for competition. They have deregulated their economies to encourage domestic competition and opening their domestic markets to enable domestic firms to compete with foreign firms. In addition, they have created a stable policy environment and they have improved access to credit to permit medium- and long-term investments.

Balassa (1989), Lee (1981), Little (1981), and Datta-Chaudhuri (1981) have all shown that outward-oriented strategies can be a source of greater growth of productivity. Expanding beyond the domestic market can result in greater capacity utilization in industries in which the minimum efficient size of

plant is large relative to the domestic market. It can also induce greater horizontal specialization as each firm concentrates on a narrow range of products. Additionally, it can result in increasing familiarity and absorption of new technologies and greater learning-by-doing as long as this is a function of cumulative output. Increasing productive efficiency depends to a large extent on: (1) more appropriate machinery; (2) new management techniques; (3) research and technological capabilities; (4) innovative ways of raising labor productivity; (5) systematic attempts to enter new non-domestic markets with higher quality products packaged more attractively; (6) attempts to reduce comparative transport disadvantages, and (7) the provision of extension of export credit guarantees and facilities to minimize foreign-exchange risks. Finally, exports can permit greater output in industry and the stimulative effect of the need to achieve internationally competitive prices and quality.

Woldekidan (1994) has argued that expansion beyond the domestic market rests on designing sound macroeconomic policies and creating the enabling environment for competition in the output and factor markets. Even though these are necessary conditions, as noted by Tyler et al. (1994), they are not sufficient conditions to guarantee success in outward-looking industrialization. There exist a host of other elements to stimulate growth in the manufacturing sector. Attention needs to be paid to improving technical and managerial capability in order to master new technologies and raise productivity. Equally important is the need to invest in the physical infrastructure (roads, railroads, port, and telecommunication) to improve access to information and reduce transfer costs. Tyler argued further that simplification of regulations, improvement of customs procedures and institutional support are other important elements to increase supply response in the manufacturing sector.

The World Bank (1991) in a study to improve SSA's competitive position identified additional critical elements to make an outward-oriented industrialization successful. Collaboration between domestic and foreign firms can play a catalytic role in building a competitive edge in world markets. As argued by the World Bank, because SSA's firms generally lack the capacity to export, they should establish a close link with foreign firms to: (1) acquire technical, marketing and managerial know-how for starting up manufactured exports, (2) establish world market network, and (3) acquire financial resources for investment and working capital. This close collaboration is possible only if information on investment opportunities in SSA are disseminated and if there exist private match-making mechanisms to narrow the information gap between potential foreign investors and domestic firms.

Woldekidan (1994) observed that manufacturing exports can also be facilitated through various schemes for free trade, such as bonded manufacturing warehouses, duty-drawback systems, duty-exemption systems, and import licensing. For instance, the success of Mauritius' clothing industry was greatly influenced by the creation of the Export Processing Zones (EPZ) aimed at providing areas where scarce infrastructure could be concentrated and a free trade environment created for domestic and foreign firms producing for exports. He noted further that creation of the EPZ was, however, possible because Mauritius did not establish restrictions on foreign ownership in the manufacturing sector and more importantly capital, profits and dividends could be remitted abroad freely.

V- Regional Trade

5.1 Formal Trade

Since the early 1970s regional economic integration has received considerable attention among African policy makers to overcome the narrowness of the national economies. Notwithstanding all the rhetoric, little progress has been made to foster trade among Sub-Saharan African countries. The World Bank (1991 b) estimated that official trade among these countries has stagnated over time and accounts for a small share of their total trade. In 1991, overall regional trade amounted to a mere 6 percent of SSA's total trade, despite the existence of several regional organizations to promote Sub-Saharan African trade. Official regional trade appeared to be highest among members of the defunct Communauté Economique de l'Afrique de l'Ouest (CEAO), which included eight Francophone West African countries. Intra-CEAO trade accounted for 11 percent of the total trade of the member countries in 1989.

Several reasons have been put forward to explain the lack of progress in regional trade. The first argument has focused on differences in historical and cultural background. The colonial legacy and post-colonial differences in external relationships have endowed the region with varied administrative, legal, and economic traditions, and with different languages. Business relationships are easier and more frequent among Francophones and among Anglophones than they are between the linguistic groups (Berg, 1991). This factor may probably explain the relatively high intra-CEAO trade mentioned above.

Berg also noted that structural factors have also been blamed for the stagnation in official regional trade in SSA. Sub-Saharan Africa is characterized by great disparities in economic size and levels of economic development. This disparity accentuated the fundamental problem of unequal distribution of costs and benefits, which is found in all preferential trading arrangements. Usually, the more advanced countries benefit more and, often, more quickly from economic integration than the poor states. The latter find their national industrial structures menaced or their fiscal stability threatened, given their dependence on customs duties. So, they demand compensation. But, compensation arrangements are hard to work out because they reduce the benefits to the advanced members and the group as a whole. They also tend to undermine the economic efficiency rationales that are the main justification for economic integration.

Faezed Foroutan and Lant Pritchett have argued that the observed small proportion of intra-SSA trade is not less than one would expect. They contend that the low degree of intra-trade is completely explained by the low trade potential amongst the countries, primarily because of their low level of GDP. They further state that there is no evidence that intra-SSA trade flows are differentially low either because of policy or infrastructural weaknesses.

However, the view taken by the World Bank (1991 b) in explaining the lack of progress in regional trade stressed the inappropriate macroeconomic and sectoral policies. Most African countries have adopted overvalued currencies and distorted the economic structure through heavy government intervention in input and output markets to foster national industrialization. Agreeing with the World Bank's line of thought, Badiane (1991) noted that SSA's development policies, which are consistent with inward-looking industrialization strategies, are incompatible with integrated regional markets because they pursue specific national objectives that can hardly be regionalized. In the light of the Lomé IV convention about to expire regional trade is becoming increasingly important and inward-

oriented strategies offer limited scope for regional trade, for they emphasize industrialization and penalize agriculture in which most African countries appear to have a strong comparative advantage. Policy-induced distortions tend to encourage rather trade based on rent-seeking activities. These distortions also tend to drive traders to the unofficial and informal channel and may lead to unrecorded intra-regional trade.

5.2 Unrecorded Trade

Even though trade data show little official trade among Subs-Saharan African countries care must be used to make inferences from these data. A wide body of literature has documented the fact that data on official regional trade are unreliable and that this trade accounts for a small portion of trade taking place among African countries. Burfisher and Missiaen (1987) estimated that over 40 percent of intra-regional trade is unrecorded in Sub-Saharan African countries. The underestimation of total intra-regional trade can be explained, according to these authors, by the fact that African governments lack generally the personnel, logistic and resources to capture most cross-border transactions.

INRA-IRAM-UNB (1991), the Franco-African research team under funding from the Club du Sahel and CILSS, pointed a second reason for unrecorded trade. Sometimes, it would be too restrictive to follow official procedures (regulations, taxes, or simply the need to make a detour through a customs post). One example of this type of trade is the flows of sorghum and millet from Mali to Côte d'Ivoire, Senegal and Mauritania. These flows involve less than 3 percent of the region's total cereal output. Such is also the case for livestock trade in the central corridor of West Africa, as shown by Kulibaba and Holtzman (1990). This kind of unofficial border trade could be assimilated fairly easily by the formal sector, provided the constraints on traders are not excessive.

A third reason for unrecorded intra-regional trade is the complicity of some governments. Some products are imported from the world market by one country and then re-exported clandestinely to a neighboring country to enable the former country to derive economic benefits. Such trade stems from economic or monetary policy disparities. A case in point was rice trade between several West African countries, as shown by INRA-IRAM-UNB (1991), and Ndoye et al. (1989). In fact, most countries in West Africa grow rice. Some of these countries have decided to maintain an open door for rice trade, while others try to shield their domestic rice producers from relatively cheap world market rice. Protection is undertaken through quantitative restrictions or high tariffs and induces artificially high rice prices within their borders. As a result of this protection, rice prices are much higher in these countries than in non-protectionist countries. The price differentials resulting from trade policy disparities make it attractive for traders to engage in cross-border trade. According to INRA-IRAM-UNB, this type of trade accounts for more than 10 percent of total rice imports and certain smaller countries have made it a "national specialty." These countries purposely unrecorded such trade.

Unrecorded trade was mainly driven by policy disharmony than a reflection of comparative advantage. Such was the case for instance in West Africa before the devaluation of CFA franc (Barry et al., 1991; Salinger and Stryker, 1991). The challenge then is to create competitive market structures that will promote factor mobility and free movement of goods and services by the private sector. The ultimate goal is to encourage the private sector to engage in wealth-creating exchanges across borders rather than market conditions that promote rent-seeking activities. An important step toward wealth-creating regional exchanges is to dismantle government-induced distortions.

When distortions do not encourage rent-seeking activities they often erect barriers to fruitful exchanges that are consistent with comparative advantage. A good example of the adverse impact of policy-induced barriers was the inability of Sahelian countries to export their livestock products to the West African coast. Sahelian countries lost an important regional market share, owing to the overvalued CFA franc prior to January 1994. This loss took place, despite a strong comparative advantage for Sahelian livestock production in competing with meat imports into coastal West Africa (Metzel and Cook, 1994).

Numerous informal barriers also stand in the way of intra-regional trade. These barriers include for example police and customs officials' harassment within and across borders. These constraints on trade have been documented by Josserand (1992), Savadogo (1992), Kulibaba and Holtzman (1990) and the West African Enterprise Network (1995). The Network also stressed the difficulty of monetary transfer across countries, as well as the condition of the physical transport infrastructure and the high transport cost, as major impediments of regional trade. Other structural barriers such as the lack of storage and refrigeration infrastructure, vacuum in contract enforcement and regional market information, the problem of access to trade finance, the political insecurity, etc. also hinder intra-regional trade (for details on these barriers, see survey papers on Structural Barriers to Trade, and Promoting Trade through Regional Integration).

Dismantling policy-induced distortions may expand regional trade to some extent. Encouraging intra-SSA trade should not, however, give the opportunity to Sub-Saharan African countries to erect barriers against third parties, for these countries may isolate themselves from the rest of the world. African countries should rather integrate themselves into the world economy to encourage adoption of new production and marketing processes, and promote more competition and more efficient resource allocation.

5.3 Comparative Advantage in Food Products and Livestock

A vast body of literature has been devoted to the analysis of comparative advantage of the West African agricultural sector. The means that was used more often to assess this comparative advantage has been the DRC/PAM method. The first application of this method was on rice. Then, it was extended to other commodities.

5.3.1 Rice

The first comprehensive study of West Africa's rice sub-sector was undertaken by the Food Research Institute (FRI) in the late 1970s, using the DRC/PAM method to evaluate the economic efficiency of rice production, processing and distribution (Pearson et al., 1981). This study grew out of concern with shocks that affected the sub-sector of rice, which is the principal staple food in West Africa. Following a long drought in West Africa and a sudden and marked price increase in the international rice market, couple with the quadrupling of petroleum price, all governments in this region began to reassess policies affecting production, consumption, and trade of rice. West African governments reacted to the international price hike by raising domestic rice prices to consumers and producers, though not always by the full extent of the rise in corresponding import prices. Consumers reacted to the higher prices by switching partially from rice to other foodstuffs. Producers who received higher prices for their paddy responded by increasing in output, while government agencies were created to import rice.

While this adjustment was taking place, the picture changed drastically in 1975. All of the sudden, there was an excess supply of rice and the importing agencies were forced to carry over stocks into 1975. Some countries became self-sufficient in rice and others even had small exportable supplies. The unstable market conditions led member countries of the West African Rice Development Association (WARDA) to commission a study that would assess the possibility of regional self-sufficiency in rice and eventually evaluate the prospects for future intra-regional trade in rice under alternative scenarios. This study focused on three countries (Côte d'Ivoire, Liberia and Senegal) which had imported relatively large quantities of rice, and two other countries (Mali and Sierra Leone) which had the potential to export rice within the region.

The results of the net social profitability (NSP), used as a measure of efficiency and comparative advantage, suggested that Côte d'Ivoire, Liberia and Senegal could not profitably substitute local rice for international rice in their capital cities, even under reasonably optimistic assumptions for production growth. Rice produced in production centers which were close to the coast were also found to be economically unprofitable in general. This conclusions raised importance questions on the policies adopted by the government of these coastal countries to increase rice production and marketing, in the face of increasing rice consumption in West Africa.

In contrast to the results for the coastal countries, the study suggested that Mali and Sierra Leone could supply rice efficiently to their respective capital cities. Mali had the highest NSP for two reasons: (a) labor cost in this country was much lower than that of other countries and (b) this country was favored by transport cost from the coast to its border. Positive NSP in Mali and Sierra Leone suggests that these countries might have a comparative advantage in exporting to other countries in West Africa. Revised NSP estimates for rice exported from Mali and Sierra Leone to several West African markets, using FOB value for rice, showed that there were profitable exports of rice from both countries, but the competitiveness of Malian rice could not go beyond Bouake, a city in central Côte d'Ivoire, owing to high transport cost.

Using the same method of measuring comparative advantage, Stryker et al. (1987a) found similar results for Mali. Comparable results were generated by studies undertaken by Stryker et al. (1987b) for Nigeria, Holleman (1991) for Senegal and Barry et al. (1991) for Côte d'Ivoire. Mali and Guinea. Barry (1994), having extended the number of consumption points and used different assumptions, also found results similar to those of earlier studies. The results of all these studies, along with those of a study undertaken by Stryker et al. (1992) in Madagascar, suggested that large-scale irrigation was not a viable means of rice production under any circumstances. These conclusions may well be confirmed by the WARDA study which is under way in West Africa (see upcoming publications by Randolph). This large study aims to update the results of the previous WARDA work on Côte d'Ivoire, Mali and Senegal, and intends to assess the comparative advantage of the West African countries that were not included in the study of the late 1970s. Another study has also been launched by Michigan State University, under Dimithe's leadership, to evaluate the competitiveness of swamped rice production in Southern Mali. Preliminary results of this study will be available soon.

5.3.2 Other Food Products and Livestock

The DRC/PAM framework has been also used to assess the economic efficiency of food crop production and marketing in several Sub-Saharan African countries. Stryker et al. (1987 a and b; 1992), Delgado (1990), de Frahan (1990), Holleman (1991), Barry et al. (1991), SOGES and AIRD (1991), Barry (1992), Morris et al. (1992), Barry (1994), and Salinger and Barry (1996) have shown that coarse grains are generally produced efficiently by SSA countries, despite low productivity. It appears from the results of the above-mentioned literature that there is room for beneficial exchange between African countries based on their comparative advantage. Trade would be expanded further if on-farm yields could be enhanced markedly, suggesting that investment in research will be crucial for the well-being of African consumers.

In contrast to coarse grains, research on the comparative advantage of SSA in livestock products has been scanty. The only research available to date on livestock is the study undertaken by Metzler and Cook (1994) on West African livestock. The results of this study suggested a strong comparative advantage for Sahelian livestock production in competing with meat imports into coastal West Africa, and for delivery of milk products to local populations within the Sahel. This study seems to indicate that traditional ruminant production systems in the sub-humid zones of coastal West Africa are competitive in coastal markets, despite lower animal productivity than Sahelian systems. This competitiveness appears to be due to their closer proximity to the coastal markets, which reduces their marketing costs in reaching these markets. Only feed-intensive peri-urban dairy production appears to show weak economic profitability. According to the study, governments should focus attention on increasing productivity, which will require investments to improve feed supplementation, animal health and management.

Salinger and Barry (1996), Stryker et al. (1992), and SOGES and AIRD (1991) are some of the rare research on examining SSA's comparative advantage in non-cereals. Results provided by these authors indicated that some countries seem to have a comparative advantage in potatoes. But, this comparative advantage is very much linked to the dwindling international prices and more importantly to the unstable on-farm yields. Potato yields in SSA are very low by international standards. Increasing these yields may help to reduce unit costs if the problem of ringworm (right terminology for *feigne*?) could be addressed in the near future.

Economic research needs to be undertaken for other root crops which are an important part of people's diet in SSA. Particularly important among these are cassava, yam, sweet potatoes, etc. Economic research on these root crops, other food products, and livestock in other parts of SSA will shed light on the comparative advantage and contribute to address the bottlenecks encountered in the food sector.

VI Nontraditional exports

Many Sub-Saharan African countries have relied on, up to the early 1980s, a few commodities to generate foreign exchange earnings. These countries had lost a large share of the markets for traditional export commodities. The reforms programs that have been under way since the early 1980s have helped these countries to recapture some of the markets lost to non-Africa competitors. However, growth in these markets is blocked by supply and demand conditions. On the demand side, world market prospects for some traditional commodities, especially for vegetable oil, appear poor

and unstable. On the supply side, population growth is pressuring on the land suitable for livestock and cash crops. In the meantime, mineral deposits and forest reserves are being exhausted. As a result of unfavorable supply and demand conditions, future export earnings and growth prospects for SSA will have to rely increasingly on exports of nontraditional goods. These goods include high-value commodities (horticultural products, processed agricultural products, etc.) and labor-intensive manufactured products (Stryker, 1991).

6.1 Comparative Advantage and Prospects for NTX Following Structural Adjustment

African countries can diversify into nontraditional export products, such as horticultural commodities. Climatic conditions are in favor of Sub-Saharan African countries, on the grounds that they can grow these products all year round without interruption. Such is the case for Burkina Faso, the Gambia, Guinea, Kenya, Madagascar, Mali and Senegal. Countries along the coast such as Mauritania can also profitably export marine resources. Flexible supply conditions in SSA will be crucial for capturing a larger share of world market for high-value products. In this respect, it may be useful to review country case studies to determine where the supply factors adversely affect the ability of African countries to respond to market opportunities.

Diversification into labor-intensive products is also possible because SSA's labor has become relatively cheaper than that of other regions, owing to two major reasons. First, its labor force is rising due to the high population growth rate (Cilber, 1985). Second, its real per capita income has declined or at best stagnated, following the dismal economic performance. This, together with the expanding demand for Afrocentric products -- e.g., garments, home furniture, accessories--, is creating new market opportunities for much of Africa.

The prospects for nontraditional exports commodities appear promising for SSA. World demand for these products is expanding, owing to renewed growth in the developed economies and income increase in the newly industrialized countries and other developing countries. Experience has shown that as income grows consumers tend to diversify their consumption basket by moving more toward food products that have a high value. The ability of Sub-Saharan African countries to take advantage of demand expansion will depend largely on meeting demand conditions in the very competitive market for high-value products. In this respect, it may be useful to review selected country case studies to identify the supply constraints and bottlenecks.

6.2 Lessons Learned from Case Studies of Nontraditional Export Products

6.2.1 Madagascar

Madagascar's agro-ecological conditions and its location in the southern hemisphere give it a strong comparative advantage in the production or exploitation of agricultural, marine, wood and mining products. Madagascar has experienced growth in a number of nontraditional exports from both primary and secondary sectors, e.g. shrimp, dried beans, butter beans, luxury rice, sisal, cotton fiber, medicinal plants, meat, leather, cotton cloth, and garments. Madagascar appears to have a strong comparative advantage in these products. It has invested markedly in these products, following the establishment of both the new investment code and the Zone "Franche".

Despite these investments, the nontraditional exports declined sharply between 1992 and the end of 1993, owing mostly to the climate of political uncertainty. Stryker and Shaw (1994) showed that

nontraditional exports were also hindered by poor transportation and infrastructural decay, especially in telecommunication services. In addition, long distance from major international markets, high transportation costs, and lack of linkages between overseas markets and domestic production adversely affected the nontraditional sector. Furthermore, a host of policy and institutional factors, including complex administration of the processing of exports and imports, foreign exchange for exporters, implementation of duty and tax exemption schemes, access to financing, labor regulation, and contract enforcement stood in the way of nontraditional exports.

6.2.2 Ghana

Ghana has also a number of pre-conditions for successful nontraditional export growth. Favorable agro-ecological conditions give it a comparative advantage in the production of horticultural and other agricultural crops. Ghana is also rich in marine resources and its timber resources give it a comparative advantage in wood processing. It has a cultural tradition suitable for the production and export of Afrocentric products. Finally, Ghana has a reasonably high level of education by African standards, and it has an entrepreneurial class with a long history of investment in new undertakings.

According to data compiled by Stryker and Shaw (1994) from the Ghana Export Promotion Council (GEPC), nontraditional exports increased from \$24 million in 1986 to \$63 million in 1991. The share of these exports in total exports more than doubled between 1986 and 1990, increasing from 3.2 to 7 percent. The most rapid and consistent growth was in furniture and wood products, and handicrafts. The volume of horticultural products also increased. In addition, Ghana experienced rapid growth in exports of Afrocentric products such as cloth, garments, fashion accessories, household furnishings, and handicrafts (Biggs et al., 1994).

It appears, however, that Ghana's nontraditional exports encountered difficulties in recent years. According to Biggs, from delayed delivery schedule following a series of difficulties GEPC hindered the expansion of the nontraditional sector. Difficulties in coordinating input supplies, poor quality, and packaging problems stood also in the way of fostering the expansion of this sector.

6.2.3 Kenya

Kenya is another SSA country which has actively participated in the international trade of high value products. Kenya specializes in vegetables and has the most SSA's successful trade in "off-season" vegetables to niche markets in Western Europe (Nurul Islam, 1990). The export value of vegetables steadily increased from \$2.3 million in 1970 to \$47.7 million in 1988-89 (Steven Jaffee et al., 1993). Kenya's competitive advantage originates from low costs of production, a broad product base, and a counter seasonality of supply. The implementation of institutional arrangements linking producers with exporters, processors and foreign agents as well as contractual coordination and ownership integration were also instrumental in establishing and maintaining market access. The long term contractual ties provided critical market information allowing exporters to quickly adjust to new opportunities reduced uncertainties regarding payments. Steven Jaffee further reports that prior development of complementary industries and new transport facilities are the primordial factor contributing to the initial vegetable exports take off from 1968-1975.

6.3 Barriers and Approaches to Expanding Nontraditional Exports

This quick review of SSA's nontraditional export sector seems to suggest that SSA has done fairly well in world market (Biggs et al., 1994). However, SSA is constrained by a host of factors that prevent it from maximizing its exports. Lack of adequate physical infrastructure such as transport, warehouses, telecommunication and research facilities, stands in the way of African exports. SSA's exports are hindered by the limited technical and managerial know-how which makes it difficult to adapt available foreign technology to local conditions or to adequately understand the functioning of the market. This understanding is even more difficult because of the lack of market information system.

African nontraditional exports are also hampered by the lack of a viable legal and judicial environment that contributes to relatively high transaction costs. Serious distortions in the institutional structures are also hindering the expansion of the nontraditional sector and include: (1) restrictions on exporters' retention of foreign exchange earnings, (2) lack of duty-free access to imported inputs, (3) slow and costly procedures for exports and imported inputs, (4) lack of access to term finance for fixed investment, (5) lack of access by smaller firms to working capital, (6) problems in the implementation of special incentive schemes, (7) lack of competition for air and sea freight, (8) excessively complicated or restrictive regulations regarding land and labor, and (9) problems in contract enforcement with overseas importers (Stryker et al., 1994).

Governments in SSA may draw useful lessons from the study undertaken by Jaffee and Gordon (1993) on the success stories of some developing countries in exporting high-value commodities. They need to focus their attention on encouraging foreign and joint venture investments to facilitate transfer of production and processing technologies to SSA. Achieving this goal will require that governments streamline foreign investment procedures, set up investment incentive programs, and reduce tariff and non-tariff barriers to make it easy for the private sector to import technology-embodied inputs and agribusiness operations. Governments also need to invest in both human capital to improve technical and managerial skills, and support physical infrastructure. Government should not, however, meddle into the marketing activities and should leave them to the private sector which is better equipped in general to respond to market opportunities.

Conclusion

This research has shown that SSA has lost an important share of the world market for primary products. Even though bad weather and the dwindling terms of trade may have contributed to this decline, policy-induced factors played a more significant role in SSA's lackluster export performance. Distortions introduced by macroeconomic and trade policies made primary export products unprofitable to producers and as a result, they retracted from making the investment necessary to enhance productivity and supply. These policies also adversely affected the food sub-sector. They discouraged domestic food production and encouraged commercial food imports and food aid to fill the gap between the declining per capita food production and the surge in food demand, resulting from the increasing population growth.

Macroeconomic policies geared toward import substitution and inward-looking strategies had a heavy bearing on SSA's manufacturing sector. The policy-induced distortions encouraged the creation of inefficient industries that could compete in domestic markets only, thanks to heavy protection. The

inability of this sector to compete in foreign markets was compounded by the lack of technical and managerial skills that made it difficult to adapt available foreign technology to local conditions. In addition, they suffered from the lack of adequate physical infrastructure and telecommunication facilities.

The policy reforms initiated in the early 1980s to make SSA's economies more flexible and competitive have resulted in relatively efficient nontraditional export products: horticulture and labor-intensive goods. SSA can diversify into horticultural products because it has at its disposal the natural conditions to supply these products all year round without interruption, thus making it possible to take advantage of the opportunities provided by the niche markets. Diversification into labor-intensive products is also possible because SSA's labor has become relatively cheaper than that of other regions, owing to its rising labor force resulting from the increased population. Moreover, the lackluster economic performance in SSA, in contrast to economic growth in other regions, has induced declining or at best stagnating wages. However, some factors, in addition to the constraints mentioned for the manufacturing sector, hinder the nontraditional export products: (1) the lack of marketing finance; (2) the lack of market information system to help exporters understand the functioning of world markets for nontraditional products; and (3) a weak institutional base that contributes to high transaction costs.

In light of the findings of the paper, it is recommended that SSA's governments invest in both human capital (formal education and on-the-job training) and physical infrastructure (transport, port, railroads, etc.), create the enabling environment to induce competition in factor and output markets, and avoid meddling in the marketing activities because the private sector is generally better equipped to respond to market opportunities. Moreover, SSA's governments need to focus their attention on encouraging foreign and joint venture investments to facilitate transfer of production and processing technologies to SSA. Achieving this goal means streamlining foreign investment procedures, setting up investment incentive programs, and reducing tariff and non-tariff barriers to make it easy for the private sector to import efficient technologies.

Attempt to capture world markets does not preclude SSA to promote intra-regional trade. Trade among countries in SSA can serve to learn how to compete in the non-African market. Yet, the level of intra-regional trade is still marginal, notwithstanding the comparative advantage of different countries in different agricultural commodities. There is, however, a vacuum in comparative advantage studies in livestock and mining products. Future research in these products may shed some light on the extent to which intra-regional trade may be promoted. Additional research in the manufacturing sector is also needed, on the grounds that specific bottlenecks have not been identified and that very little is known about SSA's present and future comparative advantage.

BIBLIOGRAPHY

- Ahmed, R. and C. Delgado. (1991). "The Asian Experience with Agricultural Price Policies: relevance for Africa?" Paper presented at the colloquium entitled: "Politique Economique et Performances Agricoles Comparées dans les Pays d'Afrique et d'Asie à Faible Revenu." CERDI, Clermont-Ferrand.
- Akiyama, Takamasa and Donald F. Larson. (1989). "Recent Trends and Prospects for Agricultural Commodity exports in Sub-Saharan Africa." *PPR Working Paper 348*. The World Bank, International Economics Department, Washington, D.C.
- Badiane, Ousmane and Christopher Delgado. (1992). "Relative Roles of Macroeconomic Strategies and Sectoral Marketing Policies in the Integration of Agricultural Markets in West Africa." Draft paper, International Food Policy Research Institute, Washington, D.C.
- Badiane, Ousmane and Sambouh Kinteh. (1994). "Trade Pessimism and Regionalism in African Countries: The Case of Groundnut Exporters." *Research Report 97*, International Food Policy Research Institute, Washington, D.C.
- Badiane, Ousmane. (1991). "Regional Agricultural Markets and Development Strategies in West Africa." *Quarterly Journal of International Agriculture* 30 No. 1 (January-March), pp. 37-50.
- Balassa, Bela (1978). "Exports and Economic Growth: Further Evidence." *Journal of Development Economics* 5 (June), pp. 181-89.
- Balassa, Bela. (1990). "Incentive Policies and Export Performance in Sub-Saharan Africa." *World Development*, 18(3); March.
- Barry, Abdoul; Lynn Salinger; and J. Dirck Salinger. (1991). "Incitations, Avantages Comparatifs et Echanges Régionaux de Céréales dans le Sous-Espace Ouest: Cas de la Guinée, du Mali et du Sénégal." Associates for International Resources and Development, Cambridge, Ma.
- Bates, Robert H. (1981). Markets and States in Tropical Africa: The Political Basis of Agricultural Policies, University of California Press, Berkeley, CA.
- Berg, Elliot. (1991). "Strategies for West African Economic Integration: Issues and Approaches." Club du Sahel/OECD, Paris.
- Bhagwati, J.N. (1988). "Export Promotion Trade Strategy: Issues and Evidence." The World Bank Research Observer 3 (1), World Bank, Washington, D.C.
- Biggs, Tyler et al. (1994). "Africa Can Compete! Export Opportunities and Challenges in Garments and Home Products in the U.S. Market." Regional Program on Enterprise Development Discussion Papers, Private Sector Development and Economics Division, Africa Technical Department, The World Bank, Washington, D.C.
- Bond, M.E. (1983). "Agricultural Responses to Prices in Sub-Saharan African Countries." *IMF Staff Papers*.

- Bond, Marian and Elizabeth Milne. 1987. "Export Diversification in Developing Countries: Recent Trend and Policy Impact." IMF-Staff Studies for the World Economic Outlook. Washington, D.C.
- Boughton, Duncun and Bruno Henry de Frahan (1992). "Agricultural Research Impact Assessment: The Case of Maize Technology Adoption in Southern Mali." Draft paper. Department of Agricultural Economics, Michigan State University, East Lansing, MI.
- Brown, Michael B. and Pauline Tiffen. (1992). Short Changed: Africa and World Trade. Pluto Press, London.
- Burfisher, Mary A. and Margaret B. Messiaen (1987). "Intraregional Trade in West Africa." Agriculture and Trade Division, Economic Research Services, U.S. Department of Agriculture. ERS Staff Report No. AGES 870330, Washington, D.C.
- Chow, Peter C.Y. and Mitchell H. Kellman (1993). Trade-The Engine of Growth in East Asia. Oxford University Press, Oxford.
- Ciliber, Thomas. (1985). "Sub-Saharan Africa: Population Pressures on Development." *Population Bulletin* 40 (Februar), pp. 7.
- CILSS/Club du Sahel. (1989). "The Dynamics of Regional Cereals Markets in West Africa: Final Recommendations of the Lome Seminar." November 6-11, Paris.
- Cleaver, Kevin M. (1993). "A Strategy to Develop Agriculture in Sub-Saharan Africa and a Focus for the World Bank." *World Bank Technical Paper* No. 203, Africa Technical Department, World Bank, Washington, D.C.
- Corbo, Vittorio; Morris Godstein; and Moshin Khan, eds. (1987). "Growth-Oriented Adjustment Programs." International Monetary Fund and The World Bank, Washington, D.C.
- Coughlin, P. and G.K. Ikiara (eds). (1989). Industrialization in Kenya: In Search of a New Strategy. James Currey, London and Heinemann, Nairobi.
- Coussy, Jean and Béatrice Hibou. (1991). "Variantes de Politiques Nationales des Echanges Extérieurs et Marchés Céréalières en Afrique de l'Ouest." INRA-IRAM-UNB, Club du Sahel/OECD-Ministère de la Coopération. July, Paris.
- Datta-Chaudhuri (1981). "Industrialization and Foreign Trade: The Development Experience of South Korea and the Philippines." In Eddy Lee (ed.) Export Led Industrialization and Development. Koon Wah Printing Pte. Ltd., Singapore.
- De Frahan, Bruno Henry (1990). "The Effects of Interactions Between Technology, Institutions and Policy on the Potential Returns to Farming Systems Research in Semi-Arid Northeastern Mali." Unpublished Ph.D. Dissertation, Michigan State University, East Lansing, MI.
- Delgado, Christopher (1991). "Cereals Protection and Agricultural Development Strategy in the Sahel." *Food Policy*, pp 105-111.

- Delgado, Christopher. (1987). "Why Is Rice and Wheat Consumption Increasing in West Africa?" Paper prepared for the IFPRI-ISRA Conference on the Dynamics of Cereals Consumption and Production Patterns in West Africa, Dakar, Senegal, July.
- DeRosa, Dean and Joshua Greene. (1991). "Will Contemproneous Devaluations Hurt Exports from Sub-Saharan Africa?", *Finance and development* 28 (March), pp. 32-34.
- Diakosavavas, Dimitri et al., (1991). Trends in the Terms of Trade in Primary Commodities, 1900-1982: The controvresy and Its Origins. *Economic Development and Cultural Change* Vol. 39, No. 2, (January), pp. 232-64.
- Dollar, David. (1992). "Outward-Oriented Developing Economics Really Do Grow More Rapidly: Evidence from 95 LDCs, 1976-1985." *Economic Development and Cultural Change*, Vol. 40, No. 3 (April), pp. 523-44.
- Emery, James J. et al. (1994). "Export Competitiveness Study." Report prepared under the USAID-funded Kenya Export Development Support (KDS) Project, The Services Group, Deloitte & Touche, Fintrac, Inc. and Development Alternatives, Inc.
- Ewing, A.F. (1968). *Industry in Africa*. Oxford University Press, London.
- Foroutan, Faezeh. (1993). "Trade Reform in Ten Sub-Saharan African Countries: Achievements and Failures." *Policy Research Working Paper* No. 1222, The World Bank, Washington, D.C.
- Foroutan, Faezeh and Iant Pritchett (1994). Intra-Sub-Saharan African Trade: Is it Too little? Draft paper, World Bank, Washington, D.C.
- Fosu, Kwasi Augustin. (1990). "Exports and Economic Growth: The African Case." *World Development* 18 (June), pp. 831-35.
- Fransman, M. (ed.). (1982). *Industry and Accumulation in Africa*. Heinemann, London.
- Gabre-Madhin, Eleni; Salifou Diarra; and John Staatz. (1992). "La Problématique des Coûts de Transfert dans le Cadre de la Commercialisation des Céréales au Mali." Paper presented at the seminar organized by PRISAS on Regional Food Security, Bamako, March 22-27.
- Ghai, D. (1987). "Economic Growth, Structural Change and Labor Absorption in Africa: 1960-85." Discussion Paper No. 1, United Nations Research Institute for Social Development (UNRSD), Geneva.
- Ghura, Daneshwar. (1995). "Macro Policies, Extenal Policies, and Economic Growth in Sub-Saharan Africa." *Economic Development and Cultural Change* 43(July), pp. 759-78.
- Gyimah-Brempong, Kwabena. (1991). "Export Instability and Economic Growth in Sub-Saharan Africa." *Economic Development and Cultural Change* 39, pp. 815-28.

- Helleiner, G. K. 1986 "Outward Orientation, Import Instability and African Economic Growth: An Empirical Investigation." In Sanjaya Lal and Frances Stewart (eds) Theory and Reality in Development, Essays in Honor of Paul Streeten, MacMillan.
- Hirschman, Albert O. 1958. The Strategy of Economic Development. Yale University Press, New Haven.
- Holleman, Cindy F. and David Jones (1991). "Senegal's Structure of Protection and Comparative Advantage in Cereal and Export Crop Production." AF5AG, World Bank, Washington, D.C.
- Islam, Nurul. (1990). "Horticultural Exports of Developing Countries: Past Performances, Future Prospects, and Policy Issues." *Research Report 80*, International Food Policy Research Institute. April
- INRA-IRAM-UNB. (1991). "Cereals Trade and Agricultural Policies in the Western Sub-Market: Regional Processes and the Prospects for Integration." Summary Report, May, CILSS/OECD/Club du Sahel, Paris.
- Jaeger, William K. (1992). "The Effects of Economic Policies on African Agriculture." *World Bank Discussion Paper 147*, World Bank, Washington, D.C.
- Jaeger, William. (1991). "The impact of Policy on African Agriculture: An Empirical Investigation." *Policy, Research, and External Affairs Working Papers Series 640*, Technical Department, Africa Regional Office, the World Bank, Washington, D.C.
- Jaffee, Steven and Peter Gordon. (1993). Exporting High-Value Food Commodities, Success Stories from Developing Countries. *World Bank Discussion Paper 198*, World Bank, Washington, D.C.
- Josserand, Henri (1992). "Facteurs de Contraintes sur l'Offre de Produits de l'Elevage dans le 'Couloir Central': Promotion des Echanges à Travers la Réduction des Coûts de Commercialisation." Paper presented at the IFPRI/ISRA Conference on Regional Integration of Agricultural Markets in West Africa, Saly Portudal, Senegal, December 2-4.
- Kirkpatrick, Clin and Dimitri Diakosavvas. (1985). "Food Insecurity and Foreign Exchange Constraints in Sub-Saharan Africa." *Journal of Modern African Studies* 23 (2), pp. 239-50.
- Koester, Ulrich; Hartwig Schafer; and Alberto Valdés. (1990). "Demand-Side Constraints and Structural Adjustment in Sub-Saharan Africa." International Food Policy Research Institute, Washington, D.C.
- Kristjanson, Patricia et al. (1990). "Export Crop Competitiveness: Strategies for Sub-Saharan Africa." Agricultural Policy Analysis Project Technical Report No. 109, Abt Associate, Bethesda, MD.
- Krueger, Anne O. (1980). "Trade Policy as an Input to Development." *American Economic Review* 70, pp. 288-92.
- Krueger, Anne O., Maurice Schiff and Alberto Valdés. (1988). "Agricultural Incentives in Developing Countries: Measuring the Effect of Sectoral and Economywide Policies." *World Bank Economic Review* 2(3), pp. 255-71.

- Kulibaba, Nicholas and John Holtzman (1990). "Livestock Marketing and Trade in the Mali/Burkina Faso-Côte d'Ivoire Corridor." Draft paper. Abt Associates, Bethesda, MD
- Lee, Eddy (1981). "Export-Led Industrialization in Asia: An Overview." In Eddy Lee (ed.) ExportLed Industrialization and Development. Koon Wah Printing Pte. Ltd., Singapore.
- Lele, Uma. (1991). "The Madia Countries: Aid Inflows, Endowments, Policies, and Performance." In Uma Lele (ed.) Aid to African Agriculture: Lessons from Two Decades of Donors' Experience. A World Bank Publication, The Johns Hopkins University Press, Baltimore, MD.
- Lele, Uma. (1989). "Agricultural Growth, Domestic Policies, the External Environment, and Assistance to Africa: Lessons of a Quarter Century." *MADIA Discussion Paper* No. 1, The World Bank, Washington, D.C.
- Lewis, S.R. 1986. "Africa's Trade and the World Economy." In R.J Berg and Whitaker, J.S. (eds.) Strategies for African Development, University of Chicago Press, Berkeley.
- Little, I.M.D. (1981). "The Experience and Causes of Rapid Labor-Intensive Development in Korea, Taiwan Province, Hong Kong and Singapore; and the Possibilities of Emulation." In Eddy Lee (ed.) ExportLed Industrialization and Development. Koon Wah Printing Pte. Ltd., Singapore.
- Lyakurwa, William M. (1991). "Trade Policy and Promotion in Sub-Saharan Africa." *Special Paper* 12. African Economic Research Consortium, May.
- Matin, K. (1992). "Openness and Economic Performance in Sub-Saharan Africa." Policy Research Working Paper No. WPS 1025, The World Bank, Washington, D.C.
- Mellor, John W. and Rajul Pandya-Lorch. (1991). "Food Aid and Development in the Madia Countries." In Uma Lele (ed.) Aid to African Agriculture: Lessons from Two Decades of Donors' Experience. A World Bank Publication, The Johns Hopkins University Press, Baltimore, MD.
- Metzei, Jeffrey and Andy Cook (1994). "Economic Comparative Advantage and Incentives in Livestock Production and Trade in West Africa's Central Corridor." Associates for International Resources and Development, Cambridge, MA.
- Morris, M. L.; C. Clancy; and M.A. López-Pereira (1992). "Maize Research Investment and Impacts in Developing Countries." Part 1 of 1991-92 CIMMYT World Maize Facts and Trends, CIMMYT, Mexico.
- Moschos, Demetrios. (1989). "Export Expansion, Growth and the Level of Economic Development: An Empirical Analysis." *Journal of Development Economics* 30, pp. 93-102.
- Narashima, B. and L. Pritchett. (1992). "The Evolution of Import Restrictions in Sub-Saharan Africa in the 1980s: An Empirical Analysis." The World Bank, Washington, D.C.
- Nash, J. 1990. "An Overview of Trade Policy Reform, with Implications for Sub-Saharan Africa." Trade Policy Division, The World Bank, Washington, D.C.

- Ndoye, Ousseynou; Ismael Ouedraogo, and Stephane Goetz (1989). "L'importance et les Cause du Commerce du Riz en Senégambie." Paper presented at the Seminar organized by CILSS/Club du Sahel on Regional Cereals Trade in West Africa, November 6-11, Lome, Togo.
- Ongaro, Wilfred. (1994). "Africa's and South-East Asia's Agricultural Export and Import Markets: A Comparative Analysis of Africa's opportunities in the 1990s and beyond." *Monograph No. 7, Joint ECA/FAO Agricultural Division, United Nations and Food and Agriculture Organization of the United Nations.*
- Oyejide, T. Ademola. (1986). "The Effects of Trade and Exchange Rate Policies on Agriculture in Nigeria." *Research Report 55*, International Food Policy Research Institute, Washington, D.C.
- Pearson, Scott et al. (1981). Rice in West Africa: Policy and Economics. Stanford University Press, Stanford, CA.
- Peter Svedberg. 1991. "The Export Performance of Sub-Saharan Africa." *Economic Development and Cultural Change*, 39, pp. 549-66.
- Pick, Daniel H. and Thomas L. Vollrath. (1994). "Real Exchange Rate Misalignment and Agricultural Export Performance in Developing Countries." *Economic Development and Cultural Change* 42(April), pp. 555-71.
- Pradelle, Jean-Marc and Serge Snrech. (1992). "Food Security and Agricultural Development in West Africa: What Can Be Expected from Regional Integration?" Club du Sahe/OECD/CILSS, August, Paris.
- Prebisch, Raul. 1959. "Commercial Policy in the Underdeveloped Countries." *American Economic Review* 64 (May), pp. 251-73.
- Ranis, G and J.C.H. Fei. (1961). "A Theory of Economic Development." *American Economic Review*, Vol. LI, No. 4, pp. 533-65.
- Riddel, Roger (1990). Manufacturing Africa: Performance and Prospects of Seven Countries in Sub-Saharan Africa. James Currey, London.
- Rodrik, D. 1988. "Trade Policy Issues Facing Sub-Saharan Africa." *Discussion Paper Series 172D*, J.F. Kennedy School of Government, Harvard University, September.
- Sachs, Jeffrey D. (1985). "External Debt and Macroeconomic Performance in Latin America and East Asia." *Brooking Papers on Economic Activity* 2, pp. 524-64.
- Salinger, Lynn and J. Dirck Stryker. (1991). "Exchange Rate Policy and Implications for Agricultural Market Integration in West Africa." Associates for International Resources and Development, Cambridge, MA.
- Salinger, Lynn and J. Dirck Stryker. (1992). "Regional Economic Integration in West Africa: Potential for Agricultural Trade as an Engine in the Western Subregion." Associates for International Resources and Development, Cambridge, MA.

- Savadogo, Kimseyinga; Allison T. Slack; and Christopher Delgado. (1992). "Long-Distance Food Transfer Costs in Burkina Faso." Paper presented at the seminar organized by PRISAS on Regional Food Security, Bamako, March 22-27.
- Schiff, Maurice and Alberto Valdés (1988). The Political Economy of Agricultural Pricing Policy: A Synthesis of the Economics in Developing Countries. Vol. 4, The Johns Hopkins University Press, Baltimore, MD.
- Schiff, Maurice and Alberto Valdés. (1992). The plundering of Agriculture in Developing Countries. World Bank, Washington, D.C.
- Schiff, Maurice. (1987). "A Structural View of Policy Issues in African Agricultural Development: Comment." *American Journal of Agricultural Economics* 69, pp. 384-87.
- Shakolko, R. 1989. "Commodity Export Prospects in Sub-Saharan Africa." Paper presented for the UN Export Group, August.
- Shapouri, Shala and Stacey Rosen. (1989). "Export Performance in Africa." *Economic Research Service Staff Report* No. AGES 89-16, Agriculture and Trade Analysis Division, United States Department of Agriculture, Washington, D.C.
- Skinner, Jonathan. (1987). "Taxation and Output Growth: Evidence from African Countries." *National Bureau of Economic Research Working Paper No. 2335*, Cambridge, MA.
- SOGES and AIRD (1991). "Etude sur les Avantages Comparatifs entre Diverses Cultures dans les Regions du Moso et du Buyenzi." Draft paper. Vol. I, April.
- Steer, W.F. and J.W. Evans (1984). "Industrialization in Sub-Saharan Africa: Strategies and Performance." World Bank Technical Paper No. 25, World Bank, Washington, D.C.
- Stewart, Frances, Sanjaya Lall, and Samuel Wangwe, eds. (1997). Alternative Development Strategies in Sub-Saharan Africa. Mcmillan, London.
- Streeten, P. (1987). "Structural Adjustment: A Survey of the Issues and Options." *World Development* 15 (December), pp. 1470-82.
- Stryker, J. Dirck. (1992). "Economic Growth and Food Security in the Sahel: The Role of Economic Integration." Prepared for USAID under subcontract to the Harvard Institute for International Development as part of the Consulting Assistance on Economic Reform Project, January, Cambridge, MA.
- Stryker, J. Dirck (1991). "Nontraditional Export Growth in Response to Policy Reform in Sub-Saharan Africa." The Fletcher School, Tufts University, Somerville, MA and AIRD, Cambridge, MA.
- Stryker, J. Dirck; B. Lynn Salinger; and Jeffrey C. Metzger. (1994). "A Regional Strategy for Trade and Growth in West Africa: Sectoral Analyses and Action Plan." Associates for International Resources and Development, Cambridge, MA.

- Stryker, J. Dirck et al. (1994). "Costs and Benefits of Eliminating Institutional Constraints on the Expansion of Nontraditional Exports." AIRD, Cambridge, MA.
- Stryker, J. Dirck et al. (1992). "Regional Specialization and Agricultural Growth in Madagascar." AIRD, Cambridge, MA.
- Stryker, J. Dirck; Jeffrey C. Metzler, and Ashley S. Timmer. (1992). "Regional Specialization and Agricultural Growth in Madagascar." AIRD, Cambridge, MA.
- Stryker, J. Dirck and Katherine E. Baird. (1991). "Recent Trends in African Agricultural Trade." *AIRD Working Paper No. 2*, Cambridge, MA.
- Stryker, J. Dirck et al. (1990). "Trade, Exchange rate, and Agricultural Pricing Policies in Ghana." World Bank Comparative Study on the Political Economy of Agricultural Pricing Policy, The World Bank, Washington, D.C.
- Stryker, J. Dirck et al. (1987a). "Incentive System and Economic Policy Reform in Mali." AIRD, Somerville, MA.
- Stryker, J. Dirck et al. (1987b). "Customs and Excise Tariff Review, Component B, Analysis of Agricultural Tariff, Tax and Incentives Policies." Federal Ministry of Agriculture, Water, Resources and Rural Development, Lagos, Nigeria.
- Svedberg, P. 1988. "The Export Performance of Sub-Saharan Africa." *Economic Development and Cultural Change* 40(April), pp. 549-66.
- Tshibaka, Tshikala B. (1986). "The Effects of Trade and Exchange Rate Policies on Agriculture in Zaire." Research Report 56, International Food Policy Research Institute, Washington, D.C.
- United Nations Development Programme and The World Bank. (1992). African Development Indicators. United Nations Development Programme, New York, N.Y. The World Bank, Washington, D.C.
- WAEN (1995). "The Challenge of Regional Economic Cooperation: A Private Sector Perspective." Final report of the conference organized by the West African Enterprise Network (WAEN) on November 10-13, Accra, Ghana.
- Woldekidan, Berhanu. (1994). "Export-Led Growth in Mauritius." *Indian Ocean Policy Papers* No. 3, The National Center for Development Studies, The Australian National University and the Centre for Migration and Development Studies, The University of Western Australia.
- World Bank (1995). African Development Indicators 1994-95. The World Bank, Washington, D.C.
- World Bank (1994). World Development Report. Infrastructure for Development. The World Bank, Washington, D.C.
- World Bank. (1993a). "Adjustment in Africa: Reform, Results, and the Road Ahead." Policy Research Department, The World Bank, Washington, D.C.

- World Bank (1993b). Commodity Trade and Price Trends, 1989-91 Edition, International Trade Division, The World Bank, Washington, D.C.
- World Bank. (1992). "Strategy for African Mining." Africa Tehnical Department Series, *World Bank Technical Paper* No. 181, Washington, D.C.
- World Bank. (1991). "Intra-Regional Trade in Sub-Saharan Africa." Report No. 7685-AFR. The World Bank, Washington, D.C.
- World Bank-USAID. (1991). "Building a Competitive Edge in Sub-Saharan African Countries: The Catalyc Role of Foreign and Domestic Enterprise Collaboration in Export Activities." Industry and Energy Department of the World Bank and the Bureau for Africa of USAID, Washington, D.C.
- World Bank. (1989a). *Sub-Saharan Africa: From Crisis to Sustainable Growth*. Washington, D.C.:
- World Bank. (1989b). Sub-Saharan Africa: From Crisis to Sustainable Growth, The World Bank, Washington, D.C.
- World Bank and UNDP. (1989). "Africa's Adjustment and Growth in the 1980s." A joint-World bank-UNDP publication, The World Bank, Washington,D.C.
- World Bank (1988). World Development Report. The World Bank, Washington, D.C.
- World Bank (1986). Commodity Trade and Price Trends, 1986 Edition, International Trade Division, The World Bank, Washington, D.C.