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Panel V Industrial policy reforms: The changing role of Government and private sector development



Background Paper

Formulating industrial policy in Africa: 2000 and beyond

Prepared by

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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

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LIST OF ABBREVIATIONS

DRC	Domestic resource cost
EU	European Union
GDP	Gross domestic product
GSP	Generalized System of Preferences
HPAE	High Performing Asian Economies
MFA	Multi-Fibre Arrangement
MFN	Most favoured nation
NIC	Newly Industrializing Countries
NTB	Non-tariff barriers
RCA	Revealed comparative advantage
SAB	Soda Ash Botswana
SACU	South African Customs Union
SADC	Southern Africa Development Conference
SME	Small and medium scale enterprises
SSA	Sub-Sahara Africa
UNCTAD	United Nations Conference on Trade and Development
VER	Voluntary export restraints
ZISCO	The Zimbabwe Iron and Steel Company

INTRODUCTION

A series of policy initiatives have been made on Sub-Sahara Africa. In 1980 the Organization of African Unity adopted the Logos Plan of Action. It endorsed objectives by African States to promote regional economic co-ordination as interim steps toward a more economically integrated Africa by the year 2000. Just a year before, in 1979 the African Governors of the World Bank had expressed to that organization their concern at the slow rate of growth and development in Sub-Sahara Africa. The response of the World Bank in 1981 was to publish its programme for accelerated development in Sub-Sahara Africa.^{1/} The report focused on the role of government policies - namely the general bias against exports and agricultural growth, and the shortage of indigenous skilled labour (which would be relatively less costly). It also faulted the relatively high costs of human capital formation and policies that fostered inefficient industrialization.

A follow-up study in 1989 was even more succinct on the target rates of growth as well as the most efficient strategy to achieve those targets.^{2/} The minimum GDP growth rate had to be between 4 and 5 per cent if the countries were to avert hunger and increasing unemployment. Most of this growth had to be generated by the agricultural sector, which had to expand by 4 per cent per year between 1990 and 2020. The industrial sector would have to grow faster than agriculture or the average GDP, so that its share of both output and employment would increase. For these goals to be achieved policies would have to change so that more focus was placed on private enterprise and free market mechanisms. In the case of industrialization the study criticized the government-directed, public-investment driven industrialization strategies that had generally been implemented since the inauguration in 1981 of the CA/UNIDO Second Industrialization Decade. The suggested strategy was for industrial growth to be demand driven, in response to growth in the agricultural incomes rather than from a strategy to diversify the economy or creating a more self-reliant African economy. There was a need for expanding the human capital stock and institutional capability to govern and manage the economies.

In the meantime, the Organization of African Unity in 1991 agreed, in the Abuja Treaty, to establish the Pan-African Economic Community. Partly in response to this, the African Development Bank and the World Bank carried out a study to assess the case for economic integration in Southern Africa.^{3/} The policy measures necessary to make this an effective strategy were no different from those advocated for individual countries in 1989. The decade of the 1980s also saw several Sub-Saharan African countries implementing economic reform programmes with the financial assistance of the International Monetary Fund. The prescriptions involved the measures the multilateral institutions had been advocating since 1981. The emphasis was on domestic policy reforms which involved in most cases an immediate, hopefully short-term, decrease in

^{1/} *Accelerated Development in Sub-Saharan Africa: An agenda for action.* The World Bank, Washington D.C., 1981.

^{2/} *Sub-Saharan Africa: From Crisis to Sustainable Growth.* The World Bank, Washington, D.C., November 1989

^{3/} *Economic Integration in Southern Africa.* Africa Development Bank, 1993.

output and worsening balance of payments. Multilateral and bilateral balance of payments support would be contingent on the country adhering to the reform programme. The macroeconomic measures included an export-oriented strategy, reduction of the budget deficit through cuts in recurrent government expenditures and increasing the stock of both physical and human capital. There was no overt strategy to stimulate industrial growth.

In 1994 a World Bank team evaluated the economic performance of Sub-Saharan countries.^{4/} In general, growth rates were found to be higher in those countries which had implemented reform measures. In 1993 the World Bank had also studied the reasons underlying the very high growth rates of the East Asian countries.^{5/} The major contributing cause was the adherence by these economies (The Republic of Korea, Japan, Taiwan Province, Malaysia, Singapore, Thailand) to free market principles, fiscal restraint and export orientation. The World Bank's explanation was not universally accepted, particularly in the case of the Republic of Korea and Taiwan Province. Several studies point to an aggressive policy of industrialization based on selective promotion of key sectors early in the growth process. The policies worked because they were well managed, of a short duration, and were neutral with respect to production for the domestic or export market. In addition, there was a significant increase in total factor productivity which was the result of deliberate policies to acquire new technologies for the target industries where the country felt it could obtain a dynamic comparative advantage.

Given this background the question is what SSA countries, which are in the process of reforming their economies, should do with regard to industrialization. It is generally accepted that investment rates have to increase from the currently low levels. There is a need for export growth and diversification. Policies that establish market-oriented systems may be necessary but not sufficient to achieve high rates of growth. Given the market size in individual countries, it is not clear that industrialization in any meaningful sense can be driven by domestic demand. The diversification of the export base requires a policy. An industrial policy in this environment would place greater emphasis on the coordination of activity in order to attain overall dynamic comparative advantage. This would be done at the microeconomic level through the promotion of investment, technological change, innovation and productivity. In terms of the country as a whole the focus would be on promoting activities that enhance the national technological capabilities so as to benefit from any externalities as may be generated by a skilled and adaptable labour force. Such an industrial policy would be in sharp contrast to past practice where the State was an active investor in industry. Such a policy would not be inconsistent with market reforms as long as the proposed measures are trade neutral. The focus of this paper is on the issues that should be taken into consideration should SSA countries consider implementing industrial strategies for the year 2000 and beyond. The first section briefly summarizes the macroeconomic setting and overall initial

4/ *Adjustment in Africa: Reforms, Results, and The Road Ahead.* A World Bank Policy Research Report, Washington, D.C., 1994.

5/ *The East Asian Miracle: Economic Growth and Public Policy.* A World Bank Policy Research Report, Washington, D.C., 1993.

conditions facing SSA countries in general. The focus is on economic trends since 1970. The second part presents potential changes in the international trade environment and domestic economic management strategies, and the challenges they pose to industrial policies. The emphasis will be on the supply side and the attainment of comparative advantage in both domestic and export markets for industrial output. This is not to say the demand side is not important in this process. In fact trade and exchange rate policy could be considered under either umbrella. The implicit assumption, however, is that supply constraints are relatively more binding in SSA countries.

THE MACROECONOMIC SETTING

Both the Lagos Plan of Action with its emphasis on regional cooperation, and the World Bank's 1981 study were prompted by the relatively low rates of growth of per capita income in Sub-Sahara African countries since 1960. Table A.1 presents data on the average ten-year growth rates of the gross domestic product for the period 1960-91 and the per capita rates for 1970-91. The average SSA data are compared to those of East and South Asia and Latin America. There has been a steady decline in both measures. Total GDP growth rates declined from an average of 3.9 per cent during the 1960s to 2.9 per cent the following decade. Thereafter, the SSA economies as a whole experienced negative growth rates. Not surprisingly, per capita incomes also declined by an annual weighted average rate of 1.1 per cent between 1980 and 1991. Other indicators of development, such as food availability per capita, health measures and human skills creation showed similar disturbing trends.^{6/}

There are of course variations in performance by country. The fastest growing economy, Botswana, produces a primary commodity (diamonds) with a strong market demand. On the other hand, Swaziland, Lesotho and Mauritius grew relative to other exporters of sugar in the face of declining world prices for that commodity. Export volumes continued increasing and the special access to the EC market with its subsidized prices kept revenues from dropping. In addition, the former two countries have a special circumstance in that remittances from labour in South African mines and payments from the South African Customs Union (SACU) provided countervailing impact, while exports of manufactured goods from Mauritius grew at a substantial pace. Other countries whose major exports were agricultural commodities faced declining growth rates and falling per capita incomes. Oil exporting countries should have fared better, and Gabon, and the Congo did experience increasing GDP growth rates. On the other hand, Nigeria and Angola have not fared as well, mostly due to internal problems. Drought has been an important factor at least in the annual trends of the growth rates of Southern African countries since 1981, in Ethiopia and Somalia. The number of countries carrying out formal restructuring of their domestic policies would seem to indicate this as a common cause of declining incomes.

The performance of SSA countries relative to other developing regions is well documented. As an example, during 1965-90 per capita income in Sub-Saharan African countries was relatively constant; in south Asia the average rate of growth was just below

6/

Human Development Report 1994. United Nations Development Programme (UNDP), New York.

2.0 per cent, while incomes in the High Performing Asian Economies (HPAEs) grew at 5.4 per cent.^{7/}

Some of the causes, such as droughts and civil strife, are country specific. The Lagos Plan of Action attributed the decline to problems on the demand side, particularly the negative impact of such exogenous shocks as adverse movements in the terms of trade. The solution was seen as insulating the African economies by making them their own best customer as well as creating a trading bloc to better influence the world markets for raw commodities. The World Bank prescription took the export demand to be exogenous as far as SSA countries were concerned. The decline in per capita incomes was mostly due to domestic policies on agriculture and trade.

Changes in the Composition of Output

The usual pattern of growth is such that the share of agriculture in GDP declines while that of industry increases. Part of the change is implicit in the initial conditions. With agriculture dominating all other sectors, a small change in industrial output translates into a significant percentage increase. Another reason has to do with the response of demand to income changes. Manufactured goods are relatively more income elastic. A third, but undesirable, cause of shifts in relative sectoral shares is a decline in agricultural output.

All the above factors were relevant in Sub-Sahara Africa during 1970-92 (Table A.2). The growth rate of industrial output for the whole region, at 3.6 per cent per annum, was not significantly higher than that of total output during the first decade (1970-80). However, this was more than twice the growth rate of agricultural output. The increase in the share of industry in GDP was not so much the result of the normal trend as it was the outcome of stagnant agricultural production. In the second decade (1980-92) both sectors grew at just below the average GDP growth rate while services increased their relative share. The same trend is evident in manufacturing which is usually the more dynamic component of the industrial sector.

The trends in Sub-Sahara Africa were similar to those in Latin America, but in sharp contrast to East and South Asia where both industry and services grew at substantially higher rates than agriculture. The transformation was rapid; per capita GDP levels which had been lower than in SSA, steadily exceeded them. Growth in Sub-Sahara Africa was natural resource-based. In Botswana it was diamonds, copper and nickel, oil in Gabon, Nigeria and Cameroon. Sugar was the mainstay of the economy in Mauritius until exports of textiles diversified the sources of growth. In contrast, East Asia was not necessarily rich in primary commodities.

^{7/} *The East Asian Miracle*, op. cit., Figure 1, p. 2.

Sources of Long Term Growth

A more traditional way of making international comparisons is the production function approach. Long-term output is a function of capital (including human skills), labour, and total factor productivity. The last input cannot be measured but is assumed to come from technological change which is not embodied in either of the other inputs. Since the growth rate of the (unskilled) labour supply is usually constant there is a trend element to its contribution and this should be more or less uniform across countries. Differences come from variations in the rate of capital formation and technological change. Table 1 gives the relative contributions for all developing countries and by region, using three-year moving average values. The results can be interpreted to mean that if an economy is to expand rapidly then investment levels have to be relatively high, but there should also be a general, nationwide stock of knowledge which generates growth independent of the size of investment or labour force. In Sub-Sahara Africa whatever technological change as occurred seemed to be embodied in the capital stock, a significant portion of which is imported. Whatever it is that generates the exogenous growth (call it national technical capability)^{8/} is relatively lower in Sub-Saharan African countries as a whole and Latin America when compared to the High Performing Economies of East Asia (excluding Japan). The trend nature of this total factor productivity is now associated with, among other things, high and sustained levels of expenditures on research and development, quality improvements in a market driven by competitive market pressures.

TABLE 1. SOURCES OF LONG-TERM GROWTH, 1971-91
(Percentage Points)

	All Developing Countries	SSA	East Asia	L. America
GDP Growth Rate	5.2	3.4	6.5	4.0
Capital	2.5	1.9	2.8	1.9
Labour	1.3	1.3	1.1	1.5
Total Factor Productivity	1.3	0.2	2.6	0.5

Source: IMF, World Economic Outlook, May 1993.

^{8/} This is a term used by S. Lall (1992).

There is an interdependence between the rate of capital formation and total factor productivity. This link has been shown to be provided by public investment expenditures. A study to identify the impact of macroeconomic policy on growth disaggregated investment expenditures into physical capital formation by the private and public sectors, as well as human capital formation.^{9/} The latter was measured by secondary school enrolment. These were used as independent variables to explain the per capita GDP growth rates for Sub-Sahara African countries for the period 1986-93.

The contribution to growth by the public investment (measured as a percentage of GDP) was more than twice that of private capital (1.15 compared to 0.46). Physical capital was twice as important as education. The latter result could reflect a measurement problem since secondary school enrolments probably overstated the short-term human capital stock while understating what human capital embodies. The existence of a shortage of experienced industrial managers and general industrial experience has been recognized as limiting long-term industrial productivity. There is a need for a large enough pool such that there is greater interaction through mobility. This increases the size of externalities, and risks associated with an inexperienced labour force is lowered.^{10/} In this respect Sub Saharan African countries faced a more severe constraint than was faced by the Newly Industrializing Countries (NICs).

The international comparisons would seem to suggest that SSA stands to increase long-term rates of growth more by improving total factor productivity. Economic reform programmes may change capacity utilization rates and growth in the short term, but more fundamental changes in output per unit of input will have to occur if the necessary industrial growth is to be attained. The results indicate the need for infrastructure expansion in the region and the high productivity of such activity as a function of research and extension services. There is ample evidence of the impact of technological innovation in agriculture, such as hybrid maize in Zimbabwe (Eicher 1994), agriculture in Nigeria (World Bank, 1994). There are, however, no clear indications as to the overall regional trends in technological change (Pack, 1993). A study concluded that lower total factor productivity levels in the textile and steel industries of Zimbabwe and Kenya was lower than that of the "best practice" firms in the United States and Europe (World Bank, 1986). This was due to lower labour productivity. The productivity of capital was no different from levels in developed countries, further supporting the need for human skills development.^{11/}

EXPORT PERFORMANCE

The role of exports in the growth process is of course well known. They generate an ability to import needed inputs and consumer goods, while providing an outlet for domestic output. In the process, the economy acquires technological change embodied

^{9/} *Sub-Saharan Africa: Growth, Savings, and Investment 1986-93*. IMF Occasional Paper NO. 918. January 1995.

^{10/} See Pack (1993)

^{11/} Adjustments or flexibility in relative factor prices could conceivably maintain competitiveness on the world markets for Zimbabwe's and Kenya's output. However, an increase in labor productivity would have the added advantage of lowering average total costs while improving welfare.

in imported inputs and increased productivity born out of the competitive pressures of the international markets. Not only does labour productivity increase in the export industry itself there is also a positive impact on the national technical capabilities as described above. As development occurs there should be a shift from exports of primary commodities to that of goods with a higher value added.

Table A.3 gives the growth rates, as well as shifts in the composition of exports from Sub-Saharan Africa over the period 1965-90. The average growth rates during 1980-92 in general declined from the 1965-80 levels, except for Ghana, Senegal and Mauritius. For twelve of the SSA countries the value of exports has been declining. The most important variables in explaining this pattern are prices and production trends of primary commodities, and the composition of exports. We also look at the potential impact of the Uruguay Round on the future growth rate of SSA exports.

Price Trends

There has been a secular decline in the prices of some of the commodities which are the major exports from SSA (Table A.3). The U.S. dollar price of coffee, for example, fell by 71 per cent between 1980 and 1993, that of cocoa, 41 per cent (1983-93) and cotton, 28 per cent. While the long-term trend for copper prices has been downward as well, they have been more cyclical in their behaviour. They have been on an upward trend since 1987 and available data show the trend continuing through 1995. The expectations are that the increases will not continue for long due to anticipated increases in output from Chile.

Production trends have also been mixed. The main agricultural export crops (coffee, tea, cocoa) have experienced positive average long term growth rates since 1960. Sub-Saharan African output of copper, iron and manganese ore have continued on a downward trend. This has been largely due to constraints on production from Zambia, Zaire and Liberia. This trend is in contrast to the rest of the developing world where production levels have increased. In the case of copper it reflects an inability of SSA metal producers to take advantage of higher world prices due to domestic conditions.

Export Fluctuations

Both prices and the value of exports have shown a degree of instability around the trend as well. The more important tropical export crops not only had a downward trend, they also had greater fluctuations around the trend relative to other commodities (8.9 per cent), and all foods and beverages (10.9 per cent).^{12/}

12/ The instability index is calculated as the annual percentage deviation from trend, i.e. $I = \frac{100}{n} \sum \frac{|x_t - x_t^*|}{x_t^*}$

with x_t as the value of export earnings at time t , n the number of years covered, and x_t^* the trend value obtained by regressing the log of the value of output on a constant and a time trend

TABLE 2. PRICE TRENDS FOR EXPORT COMMODITIES, 1984-93
(Per cent per Year)

Commodity	Nominal Prices	Real (1980) prices	Instability Index
Coffee	-10.5	-15.3	16.4
Cocoa	- 9.8	-14.5	8.7
Tea	- 2.9	- 7.6	17.4
Sugar	9.6	4.8	18.6
Maize	- 2.0	- 5.0	11.7
Cotton	- 0.3	- 4.6	14.4
Tobacco	0.5	- 4.3	6.0
Copper	6.2	1.4	19.3
Iron Ore	3.5	-1.3	4.2
Manganese	13.3	8.5	22.6
All Food	-	-	10.9
All Raw Materials	-	-	6.8
All metals	-	-	15.3

Source: World Economic Outlook, op. cit.

Much has been said about the impact of such fluctuations on the balance of payments and the efficiency of investment decisions. The demand for agricultural primary commodities is relatively price inelastic and can be assumed to follow a smooth trend. Most models express prices as a function of excess demand, and movements in that variable are largely determined either by anticipated or actual changes in output. The short-term changes in output usually are the result of weather factors. While they are important we consider the implications outside of the scope of this study. The long-term changes in output, however, reflect the impact of producer prices. Most major exporting countries in Sub-Sahara Africa have in the past centralized the marketing of export crops, with producers paid an institutionally determined price payable in local currency. The marketing board then exports and turns over the hard currency to the state. The difference between the producer price and the world market is in essence a tax. The level of taxation varies by country and commodity as well as over time.

The trend of nominal U.S. dollar prices of agricultural primary commodities has meant that real prices (the unit price of exports deflated by the index of manufactured goods) declined during 1984 and 1993. Those of copper increased. However, the behaviour of Sub-Saharan Africa exports cannot be explained by the real price effect alone. As has been pointed out above, real domestic producer and export prices may not necessarily be correlated. In addition, there may be production constraints due to domestic policies and other factors not related to the world market. A case in point is the relationship between copper prices and Zambian copper exports, and the impact of real prices on cocoa exports from the Côte d'Ivoire and Ghana respectively.

A comparison of the cocoa production trends in Ghana and Côte d'Ivoire show different responses to the downward trend in the world market price of cocoa during 1976-93 (Figures 1 and 2). Until 1982 Ghana was a bigger producer relative to Côte d'Ivoire. Domestic producer price policy and the implicit export tax was such that output in Ghana exhibited a declining trend between 1973 and 1984 while Côte d'Ivoire captured a relatively larger share of the market. The World Bank estimates that between 1981/83 and 1989/91 the producer price for cocoa in Ghana increased by 96.5 per cent as the country implemented various economic reform measures. On the other hand, real producer prices in the Côte d'Ivoire declined 49.6 per cent.^{13/} By the same token overall agricultural taxation in Ghana decreased significantly while the opposite happened in Côte d'Ivoire.^{14/} The trend in the value of cocoa exports (measured in U.S. currency) in Côte d'Ivoire continued to increase even as prices declined, but that trend ended in 1986. In Ghana cocoa export earnings increased until 1980 but then plunged (Figure 2). There was a brief respite during 1983-88 but the downward trend continued after that in spite of the implementation of economic reforms. The major difference between the two countries is in the diversification of the export base which resulted in the total value of exports from Ghana to increase in spite of the cocoa trend. The diversification included expansion of gold production and growth of non-traditional exports such as canned foods and timber products. On the other hand there was a strong correlation between cocoa and total exports in Côte d'Ivoire. (Figures 3 and 4). It would seem that appropriate microeconomic policies can reverse undesirable trends in production and exports and dampen earnings fluctuations by stabilizing production. They may not, however, change market realities and in the case of Ghana cocoa production cannot be expected to increase simply because of the reforms in the face of adverse terms of trade. There is a limit to the efficiency gains from reform, unless such measures also induce technological change to lower production costs. What is clear, however, is that diversification stabilizes export earnings and the proper microeconomic policies seem to promote such diversification.

^{13/} Adjustment in Africa. *op. cit.*, Table A. 18

^{14/} *Ibid.*, Table A. 19. The measurement was in terms of changes in the protection coefficient, which decreased 34.1 per cent in Ghana while it increased 23.2 per cent in Côte d'Ivoire.

Fig. 1. COCOA PRICES, PRODUCTION IN GHANA AND COTE D'IVOIRE, 1973-93
(U.S. dollars, thousand tonnes)

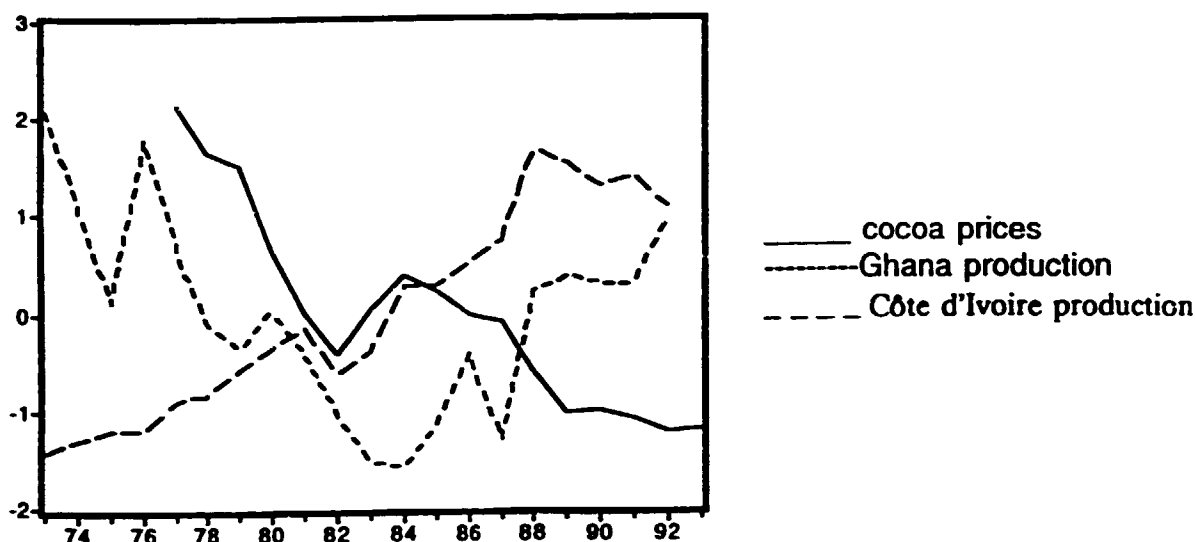
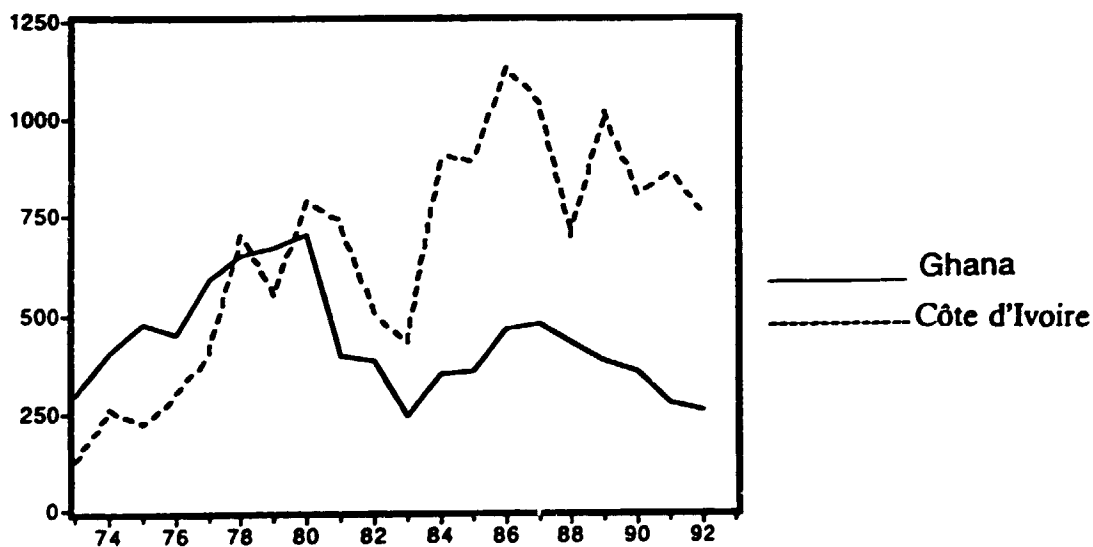


Fig. 2. TOTAL VALUE OF COCOA EXPORTS, D'IVOIRE AND GHANA
(U.S. dollars millions)



Since 1974 Zambian copper production has been on a long term downward trend, almost all of the output is exported and so the export trend is much the same as production. Unlike agricultural commodities, copper producers in Zambia are largely owned by the state, and there is no distinction between the producer and export price. The trend in production was almost entirely due to domestic issues, most notably the lack of investment to maintain the existing infrastructure and exploration. The lack of investment was in turn due to significantly large budget deficits and nationalization which

choked off inflows of private capital. As a result, copper exports steadily declined even in the face of cyclical price upswings in 1978-80 and 1986-92 (Fig. 5).

Fig. 3. TRENDS IN COCOA EXPORTS AND TOTAL EXPORTS, COTE D'IVOIRE

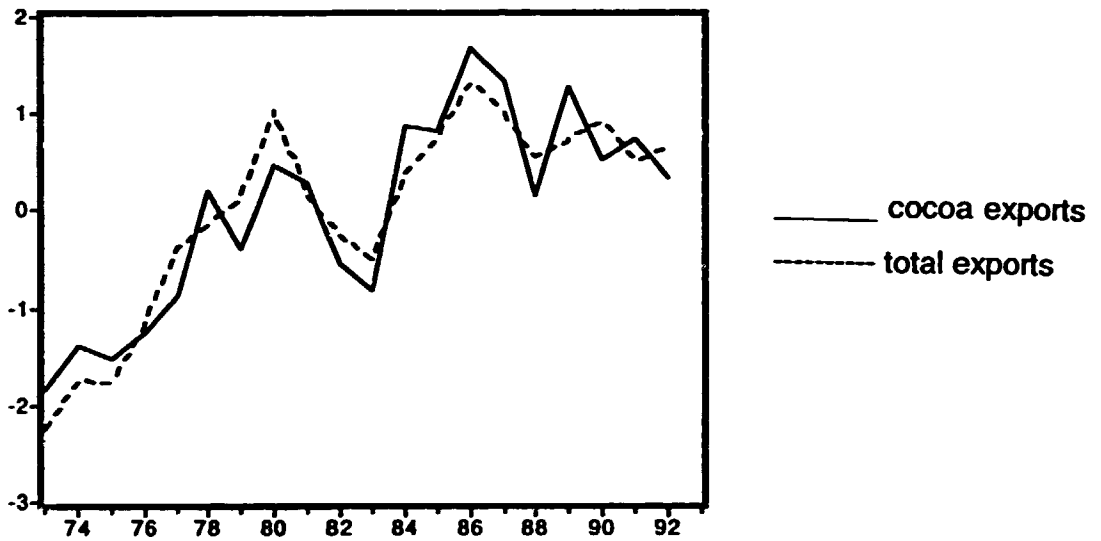


Fig. 4. TRENDS IN COCOA AND TOTAL EXPORTS IN GHANA, 1973-93

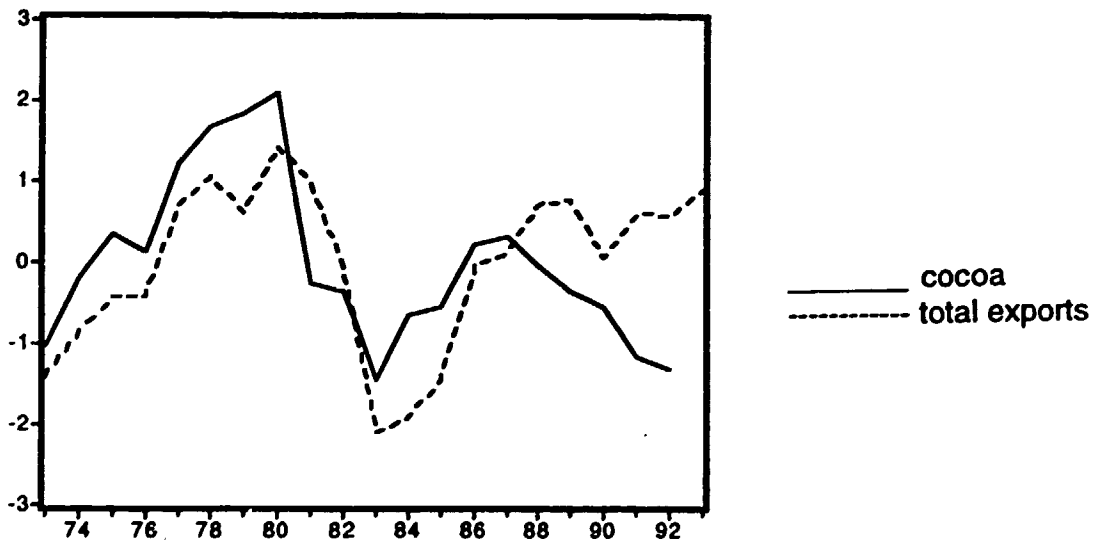
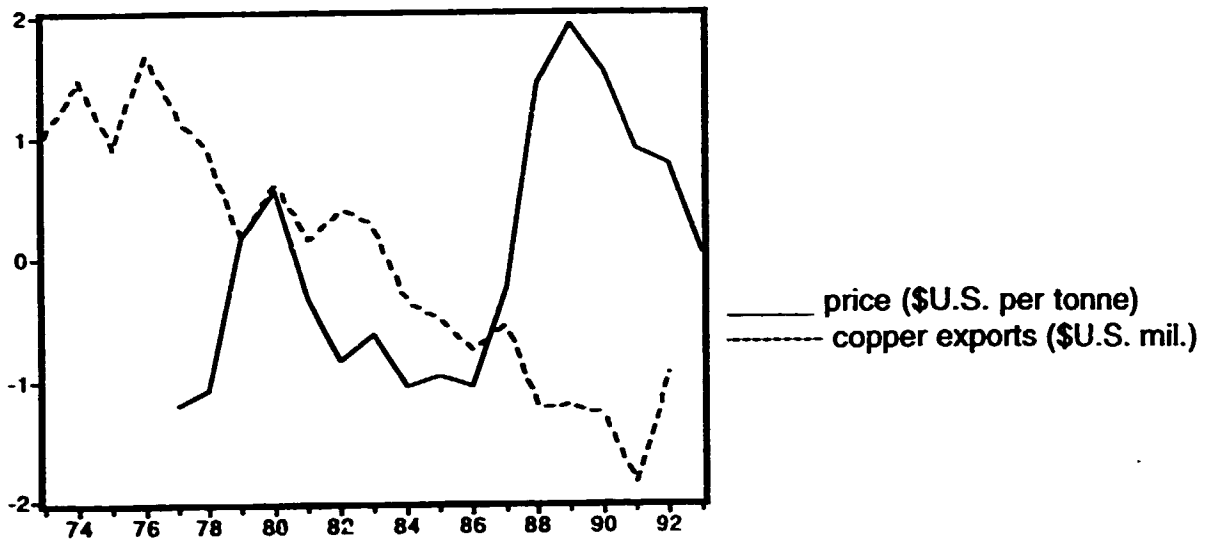


Fig. 5. COPPER PRICES, EXPORTS IN ZAMBIA, 1973-93



The long term implications of the lack of investment go beyond the opportunities foregone during the two cyclical upswings in prices. This is because investments in Chile and the potential entry of countries from the former Soviet Bloc into the world market as producers. The impact could change Zambia's comparative advantage by lowering costs. By some accounts, Chilean output is projected to increase by 60 per cent by the year 2000, and its share of the world market from 31 per cent to 40 per cent.^{15/} In contrast to Zambian trends, the new mines in Chile have high grade ores and are so technically efficient as to be profitable at less than 50 per cent of the current world market price.^{16/} Domestic policy reforms currently under way in Zambia are designed to remove a source of the constraints. As with other primary commodities, however, the inefficiency gains are a "once off" event and serve to shift exports intercept upward. For the growth momentum to occur a sustained inflow of technological change that lowers costs is required. The task of "catching up" is made more difficult the longer the reforms take because the national technical capabilities, which would have been generated from the cyclical higher prices, may now be present in Chile, but not in Zambia.

The need for such an inflow in the primary sectors is illustrated by the elasticities of revenues with respect to output (World Bank, 1994). An increase in output volume of one per cent, given the world market share of the country in question would increase export revenues by less than one per cent.^{17/} It would be profitable to expand production by one per cent only if the marginal costs of that output are less than the revenue elasticity. For countries with a significant market share the larger the contemplated output increase the greater the need for cost reduction measures.

15/ *U.S. Copper Producers Are Deeply Worried As Chile Surges Ahead*, *The Wall Street Journal*, July 25, 1995, p. 1.

16/ *Ibid.*

17/ The specific elasticities are: cocoa (0.33), coffee (0.80), tea (0.83), tobacco (0.95), and sugar, 0.97. In the short run cocoa has a negative revenue elasticity of -0.19.

What is left unsaid in most of the technical studies is that the generation of the disembodied technological change is in itself an industry that requires an industrial sector, even if it is partly funded and promoted by the state. The generation of hybrid seeds that spurred agricultural growth in Zimbabwe and elsewhere was the result of industrial activity. The higher yields in turn generated secondary activity in the industrial sector. For the synergy to work there has to be an entrepreneurial and technological capability to take advantage of positive externalities as they occur.

Impact of the Uruguay Round

There are some estimates of the potential net impact of the Uruguay Round trade agreement on SSA exports to the OECD countries.^{18/} The estimates measure the impact of lower most favoured nation (MFN) tariff levels and the reduction in the number of commodities subject to non-tariff barriers (NTBs). If the current trade patterns and composition of exports were to be held constant then the total impact of the Uruguay Round on SSA countries would be from three factors:

- a) Trade diversion, as demand shifts to that country whose exports are now subject to relatively lower tariffs, NTBs, and voluntary export restraints (VER),
- b) Trade creation which results from the general reduction of tariff rates, NTBs, and the reduction in tariff escalation (the charging of higher rates on processed raw materials),
- c) Trade reduction resulting from the lowering or elimination of export subsidies by the exporting countries. The assumption is the removal of subsidies will be fully reflected in the domestic and export prices, thereby changing relative prices in favour of domestic products. Food deficit countries in SSA will face an increase in their import bills.

Primary Commodity Exports

The Uruguay Round agreements established uniform, binding tariffs on almost all traded goods. Trade diversion would occur under such circumstances if the "preference margin" enjoyed by one group of exporters changed. The preference margin for SSA exports is measured by the difference between the average tariff paid on SSA exports (by country) to the EC, Japan and United States and the pre-Uruguay Round rates payable by other countries exporting similar goods to the same market.

Table A. 4 gives the composition of SSA exports by major product category. Almost 72.3 per cent of the total SSA exports in 1990-92 consisted of primary commodities (food and tropical beverages, agricultural raw materials, fuels and metals). This is in contrast to 46.1 per cent for all developing countries. Manufactured goods constitute the remaining 27.7 per cent for SSA, compared to 53.1 per cent for all developing countries. In terms of destination, 51.2 per cent of all SSA exports are to the EU, compared to 25.5 per cent for all Developing Countries; another 22.1 per cent (mostly fuels) to the United States

^{18/} See Harrold (1995), Ekan and Svedberg (1989), Yeats (1994) and Lal (1994).

(24 per cent for all Developing Countries), and only 5.6 per cent to Japan. Another 7.5 per cent of the trade is within the SSA itself.

Table 3 shows that on average tariffs on SSA exports to the OECD were less than 1 per cent, compared to 6.0 per cent for Taiwan Province, China and the Republic of Korea. The preference margin varied by country but averaged about 2.32 per cent. The level of protection is relatively higher in the EC and lowest in Japan (0.73). Prior to the Uruguay Round agricultural raw materials, minerals and ores (except iron ore from Liberia), and fuels were not subject to any significant tariffs or NTBs. The EC average tariff on food commodities was just less than 1 per cent, 0.5 per cent in the United States and 2.6 per cent in Japan. The comparable average rates for world exports were 6.0, per cent (EU), 1.2 per cent (USA), and 2.8 per cent (Japan). The reduction in tariffs for primary commodities therefore will not significantly affect the trade patterns either by source or destination since there really never was any preference margin. There were tariffs applied on some agricultural products of importance to SSA and Table 4 gives the more substantial reductions together with the SSA countries which stand to benefit.

Table 3. TARIFFS FACED BY LEAST DEVELOPED SSA COUNTRIES

Destination	Exports (\$mill)	Average Tariff(%)	Preference Margin(%)
European Union	5,359	0.23	-2.92
USA	1,098	3.29	-0.88
Japan	1,009	1.94	-0.73
Average for Africa	7,466	0.91	-2.32

Source: Lal, (1994, Table 5)

Most of these items entered the EC under special concessions given by the Lome Convention, and the tariff reductions will therefore not cause any trade diversion. However, should the convention be eliminated then the preference margin will have narrowed, and SSA countries could lose their market share for such goods as animal products and tobacco. On the other hand the lowering of tariffs will probably generate additional exports to the USA and Japan.

Manufactured Goods

Most manufactured goods from the least developed countries are granted preferential treatment in the industrial countries through the Generalized System of Preferences (GSP). SSA countries also benefit granted by the Lome Convention and the GSP really give only nominal protection to them. Of the dutiable exports from the least developed countries which qualified for the GSP preferences, only 30 per cent in fact did benefit in 1992 (UNCTAD, 1994). Another third did not because the products were considered to be nationally "sensitive" by the preference-giving countries. The remaining 30 per cent was eligible but remained unused by exporting countries due to supply constraints, lack of familiarity with the markets and bureaucratic procedures among potential exporters.

In the case of textiles the provisions of the Uruguay Round provide for the gradual elimination of the Multi-Fibre Arrangement (MFA) over ten years. Immediately upon ratification quantitative restrictions must be removed on 16 per cent by volume of all the items covered under the MFA. Another 18 per cent of the 1990 import volumes must be so deregulated four years after the Uruguay Round comes into effect. Prior to their withdrawal, quotas must be expanded, initially by the rate of growth of the quota during the twelve months preceding the implementation of the Uruguay agreement, and then by 16 per cent after 4 years (presumably by the year 2000). Prior to the Uruguay Round SSA exports to the European Union enjoyed some preference margins. The impact of the removal of the MFA and NTBs will be to lower the margin and reduce SSA exports to the EU through trade diversion. On the other hand, trade creation will result in some gains in the USA and Japanese markets. The net estimated impact based on 1990-92 average exports is a minimal loss of 0.07 per cent, by value, of exports to the European Union, a gain of 7.43 per cent in the USA. The overall impact would be to increase textile and clothing exports to the industrial world by 2.06 per cent.^{19/}

The effects of the trade liberalization in areas other than textiles showed that the static impact on the least developed countries in SSA would be a 0.10 per cent reduction in the value of total exports to the industrial countries. The loss is only marginally higher (0.13 per cent) if textiles are included.^{20/} The impact is not the same across all countries. Table 4 summarizes the tariff reductions on SSA exports to the industrial countries. Individual countries in SSA countries will benefit depending on the composition as well as distribution of their industrial exports. To the extent that tariffs were a factor in limiting exports then the biggest gainers would be Benin, Ghana, Namibia and Senegal (fish), Gabon and Burkina Faso (precious metals). For some products the percentage reduction is high but the initial pre-Uruguay tariff had been far less than prohibitive. Textiles, the most promising of exports, receive a relatively modest tariff reduction and the process is phased over a much longer period.

^{19/} And Lal, (1994), op cit. App 4.

^{20/} Ibid. Table 7D

Reduction in Tariff Escalation

Another important aspect of the Uruguay Round is the reduction in tariff escalation, i.e. the charging of higher rates based on the level of processing of the primary product prior to exporting. The larger the reduction in tariff escalation the greater the impetus toward resource-based industrialization. Table 5 shows the change for selected products. The most significant products in terms of changes in the escalation rates are wood and paper products, rubber and tobacco. On the other hand, cocoa, hides and skins are significant raw material exports which are already being processed for the domestic markets in SSA countries. There are just as significant potential gains from further processing even in the case of cocoa beans where the incentive to do so has been reduced with the elimination of the duty on cocoa beans. However, the markets for manufactured goods are subject to quality and standards certifications that differ by country of destination. These requirements place a premium on market information and product quality, both of which require investment and technological change to satisfy.

Table 4. TARIFF REDUCTIONS ON AFRICA EXPORTS TO THE EU, USA AND JAPAN (US dollar million, and percentage)

Market and Product	Value	Average Tariff		Reduction (%)
		Pre-UR	Post-UR	
<u>European Union</u>				
Industrial products	3,711	1.4	0.8	43
Wood, pulp, paper & furniture	216	0.3	0.2	33
Textile and Clothing ^a	333	2.3	1.8	22
Leather, rubber, footwear	118	0.9	0.7	22
Metals	1,578	0.1	0.0	100
Chemicals, Photographic Supplies	341	4.9	0.6	88
Mineral products, precious stones and metals	779	0.0	0.0	0
Fish & fish products	156	15.8	11.0	30
<u>Japan</u>				
Industrial Products	867	5.6	3.1	45
Textiles and Clothing ^a	62	0.3	0.0	100
Leather, rubber & footwear	17	0.2	0.0	100
Metals	474	5.4	2.5	54
Fish and fish products	275	8.2	5.6	32
<u>United States</u>				
Industrial products	592	1.2	1.1	8
Textiles and clothing	27	16.1	14.1	10
Leather, rubber, footwear	18	1.9	1.3	32
Metals	278	0.6	0.6	0
Mineral products, precious stones & metals	171	0.1	0.0	100

^{a/} The figures underestimate the increase in market access because they do not account for the phase-out of the bilateral quotas imposed under the MFA.

Source: Harrold, (1995), Table 9.

Table 5. CHANGES IN TARIFF ESCALATION FOR SELECTED PRODUCTS

Product Category by Stage of Processing	Weighted Average			Changes in Escalation
	Pre-UR	Post-UR	Reduction	
Hides, Skins & Leather				
raw	0.1	0.1	0	n.a.
Semi-manufactures	4.6	3.6	22	-22
Finished Products	8.7	7.0	20	-20
Total	5.2	4.1	21	n.a.
Rubber				
Raw	0.1	0.0	100	n.a.
Semi-manufactures	5.5	3.3	40	-39
Finished Products	5.1	3.6	30	-28
Total	3.4	2.3	32	n.a.
Wood				
Wood in the rough	0.0	0.0	0	n.a.
wood-based panels	9.4	6.5	31	-30
Semi-manufactures	0.9	0.4	50	-50
Wood articles	4.7	1.6	67	-67
Total	2.0	1.1	43	n.a.
Paper				
Pulp	0.0	0.0	0	n.a.
Paper and paperboard	5.3	0.0	100	-100
Printed matter	1.7	0.3	83	-83
Paper Articles	7.3	0.0	100	-100
Total	3.5	0.0	99	n.a.
Cocoa				
Beans	2.1	0.0	100	n.a.
Paste, Powder, Butter	4.6	2.7	40	11
Chocolate	9.2	8.0	13	12
Tobacco				
Unmanufactured	14.7	11.5	22	n.a.
Manufactured	22.1	9.2	58	-131

Source: Harrold, (1995), Table 14.

Impact on Export-led Industrialization

The above analysis is of a static nature. As stated before, it is based on the assumption that there are no changes in production patterns or composition of exports from SSA countries. If tariffs are a significant proportion of the final price and the tariff changes vary by commodity or level of processing then this assumption may not hold. Changes in relative prices of the primary commodity relative to a processed derivative could encourage a re-allocation of resources. If lack of market access in industrial countries has contributed toward the bias of developing country exports in favour of primary commodities then this change should help promote resource-based industrialization (Yeats, 1991). While the production of primary commodities might confer some comparative advantage on the production of derived manufactured goods, it is not a necessary condition. The documented trend of the change in the composition of the exports of the East Asian countries toward manufactured goods occurred much faster than in SSA in spite of the fact that the primary commodities had to be imported. This trend of course may have been further promoted by the decline in the commodity terms of trade against primary commodities. However, the inability of the least developed SSA countries to increase the value added was probably due more to other factors than to market access, not the least of which were the domestic exchange rate policy.

All of the available analysis would seem to indicate little scope for the expansion of traditional primary commodity exports. There are no indications the downward trend in real prices will be reversed in the near term. The measures incorporated in the Uruguay Round have no significant impact on the traditional exports because the predominant share has been exported to the European Union under zero tariff rates. There is every reason to believe export growth can be generated from other "non-traditional" primary exports (Box 1).

Box 1

The horticulture industry in Kenya, Zimbabwe and South Africa exploits the climatic differences between the southern hemisphere and markets in the north. Since 1985 cut flowers from Zimbabwe have grown into a \$35 million export industry. It is more labor-intensive than either of the traditional crops (maize or tobacco). By 1994 Zimbabwe had become the fourth largest supplier to the Amsterdam auction market after Israel, Kenya and Spain. Both Kenya and Zimbabwe have expanded into such related products as fresh fruit, nuts and vegetable exports. The major constraint has been freight charges; the costs from Zimbabwe are \$2.40 per kilogram, significantly higher than in Kenya or South Africa, and constituting almost 50 per cent of the total c.i.f. value of the final product. Until 1994 the state-owned freight airline, Affretair, was the sole carrier of horticulture products. Producers complained about inefficient service, delays, and costly charges. Since then, other airlines have been allowed to provide competition and there is evidence that Affretair has improved its performance. A performance index devised by a local business newspaper showed that its on time delivery rate improved to over 90 per cent in 1994. In Kenya, the monopoly in freight handling, Kenya Airfreight Handling Ltd., is also under pressure because of poor logistics and high freight charges.

The government of Zimbabwe actively promoted the industry through the provision of export financing and an export retention scheme (while the foreign exchange was still rationed for the domestic market). Suppliers of inputs were considered as indirect exporters for purposes of foreign exchange allocation. Growth in the industry in turn has stimulated the packaging and paper industry.

Domestic constraints have in the past hindered exports of manufactured goods from SSA from taking advantage of whatever preference margin they enjoyed in the European Union. Although tariff levels have been significantly reduced for some manufactured products, the trade creation impact will probably not be that significant because the tariffs were relatively low to begin with. SSA countries now face the added competition from other producers. Domestic industrial policy will have to involve measures that promote the introduction of new technologies and efficient production. In the context of the Uruguay Round this would involve a re-examination of tariffs. Most SSA countries (except possibly, Zimbabwe and members of the South African Customs Union) seem intent on protecting the domestic market against imports by declaring relatively high binding tariffs. Industrial policy between now and the year 2000 should re-evaluate the gains from such a policy in terms of import-substitution against the losses from the lack of competition and bias against exports. Producers of manufactured goods would continue to find the protected domestic market more profitable, particularly now in the face of higher developmental costs of penetrating export markets where margins are razor-thin due to competition.

Domestic Policies to Promote Industrial Exports

There is some disagreement as to whether policies to promote specific industries is effective. East Asian governments pursued industry-specific promotion policies. One view is that the policies, including import protection and subsidies for capital and other inputs, did not have a significant effect on the pattern of development. What happened since 1960 could have been anticipated given the factor-base comparative advantage and changing factor endowments.^{21/} Governments in East Asia had made it clear they would judge all economic activity on the basis of export performance, and even the more domestic-oriented firms in the protected industries knew they would have to enter the (competitive) market sooner or later. The commitment to market-oriented policies in itself then made the efficient allocation of resource a reality.

From an empirical point, the composition of GDP in these countries followed the weighted international pattern observed in other countries as per capita income and population changes. Similarly, if selective industrial policies were effective then those sectors would have a higher total factor productivity than would have been explained by the relative factor endowment alone. The results do not support the notion of effective selective intervention.^{22/} While the growth rate and total factor productivity in Japan, the Republic of Korea and Taiwan Province were high by international standards, those in the targeted sectors were no higher than elsewhere in the economy. The textile industries of Japan, Taiwan Province and the Republic of Korea were targets of government policies. When compared to Hong Kong, however, it is not clear that these policies had a significant contribution with regards to cotton textiles.^{23/} The efficient production of synthetics, however, required economies of scale, and this industry would not have developed as much as it did without promotion and protection. The same applied to the electronics and automobile industries.^{24/}

The differences in interpretation notwithstanding, it is clear that the East Asian governments had an industrial policy. The policy was widely disseminated, and it was credible enough to orient individual firm behaviour toward the export market. The market participants were convinced punitive measures (repeal of the protection or differential taxation) could be implemented to enforce the criteria, just as government would alleviate risks associated with market adversities. Also, since the policies were market neutral then it is not the composition of GDP but increases in its growth rate and the speed with which certain milestones are achieved, that would be the appropriate measure for the effectiveness of the policy. If, significant externalities were present there would be no reason, *ex ante*, to expect that the target sector would grow any faster than the rest of the economy. The more appropriate answer would be, it depends on what the target sector is. The higher the level of externalities and dynamic comparative

21/ *The East Asian Miracle*, op. cit., p. 21.

22/ *Ibid.*, App. 6.

23/ R. Inoue, H. Kohama, and S. Urata (1993), p. 264.

24/ *Ibid.* See also, Westphal (1995) for the Korean case.

advantage, the more effective an industrial policy. The problem, as usual, then becomes choosing the appropriate sectors given the country's initial conditions.

If the SSA countries are to be effective then their industrial policies and pronouncements have to be credible and widely disseminated. The policies have to be backed with ancillary actions that point in the same direction as the policies. As has already been mentioned, most SSA countries have chosen to bind their tariffs at relatively high levels and there is no timetable for their reduction. They will have to take account of the export disincentives inherent in these rates. Thus far domestic market protection has induced some industrialization, but in most countries it has been at the final goods level where externalities and technological transfer are minimal. There has to be a change in orientation.

The rationale for high tariff protection is the infant industry argument and a belief in the principle of learning-by-doing. Domestic producers, given the individual firm and national technological capabilities available to them, might not be on the same production function as their international competitors. The differential factor input is technology which is not quantifiable, non-embodied, and tacit. Until such technology is mastered, the industry has to rely on the domestic market until their product "matures".

During this period the welfare gains accruing to consumers from lower tariffs (lower prices, more choices) are considered less important when compared to the potential dynamic gains in output and employment.

The import-substitution strategy in SSA led to excessive market intervention as governments pursued industrialization even when efficiency considerations would have dictated otherwise. The strategy did generate employment, but at great cost in terms of value added at world market prices. The multilateral agencies' view is that the policies biased investment toward industry and against agriculture by distorting factor prices and rates of return. The domestic market size was small relative to the production capacity of established industry. There was excessive direct public sector investment while governments did not have the requisite financial and managerial capacity to operate the enterprises efficiently. Investment in infrastructure was postponed. The product became uncompetitive on the world market but was sold at a loss because of the need to generate hard currency inflow.^{25/} When foreign direct investment occurred it came with monopoly restrictions such as exclusive exploration rights, sole supplier contracts and domestic market exclusivity (Stein, 1992). When foreign firms failed to produce the desired externalities they were nationalized. That did not promote the desired result because transfer of the technical knowledge from the private sector owners required a national technical capability to absorb it, skill, effort and investment by the recipient country. The foreign investment transferred the benefits of innovation, not the innovation process itself (Lall, 1993). For example, Zambia could nationalize the assets of the copper mining industry in order to force it to use more local inputs, but it could not transfer to its citizens the tacit technology embodied in the expatriate management (the firm technological capability). The rest of the economy did not possess the

^{25/} Mcier and Steel (1989).

wherewithal (national technological capability) to provide the necessary intermediate inputs that are essential to the realization of the potential externalities. This was because the high tariff walls and the concessions on imported capital favoured the establishment of consumer goods industries at the expense of intermediate input production.

All SSA countries have chosen the gradual approach to economic reform and they are faced with the possibility of rationalizing an already small industrial sector, with a resultant loss of employment. Sequencing of the reform measures of course becomes crucial. There seems to be some disagreement as to whether the reform measures by themselves cause de-industrialization at least in the short-term.^{26/} There is enough anecdotal evidence to support the note of caution. The textile industries of South Africa and Zimbabwe have had to reduce output and employment due to competition in the domestic market from imports and second-hand goods. The sugar industry in Kenya is facing similar problems, though the causes are still unclear since the reform programmes are still not fully implemented. The problem with gradual reform programmes is that the scaling back of operations is not uniform. As the exchange rate is allowed to fluctuate and subsidies removed export activities are the first to be curtailed, either because margins are low due to international competition, or because exports provide a better leverage on policy-makers in the struggle to prolong protection in the domestic market. There is pressure to rescue industries with a large workforce and which had been established at great cost. The decision as to what industry to support or at what level of operations should be based on market criteria based on dynamic comparative advantage. The decisions are not always simple (Box 2). The pressure is usually for government to first provide the wherewithal to update infrastructure acquired under distorted market conditions. Whole industries may try to justify their need for such special treatment. SSA countries need to formulate an industrial policy so as to respond to these requests. Such a strategy would have to be based on micro-level analysis and the realization that acquisition of technology is an evolutionary process and depends on the industry and national technical capabilities. Such criteria as the domestic resource cost (DRC) or revealed comparative advantage (RCA) measure the level of competitiveness from a static perspective, but they may provide an indication of the degree of support necessary to attain a positive internal rate of return. Externalities are hard to quantify and account for. In the past SSA countries attached almost all the weight on these externalities and invested in projects to a level considered socially desirable even though market considerations dictated otherwise. Given the resource constraints and the need to avoid a state of "permanent infancy" the sectors of interest will have to be limited to a number of firms and industries in each period of time and specific timetables and performance criteria do have to be established.

^{26/}

Lall (1992), Stein (1992) answer in the affirmative: the World Bank (1994), p. 150 claims there is no empirical evidence at the present time to back the claim.

Box 2

ZISCOSTEEL

The Zimbabwe Iron and Steel Company (ZISCO) an integrated producer of steel products with a rated capacity of 1 million tons, was established in the late 1950s to serve the markets of the then Federation of Rhodesia and Nyasaland. Over time, government domestic price controls and exchange rate policies were such that the corporation began incurring losses. These were supposed to be reimbursed out of the budget in the year they were incurred, but because of resource constraints, it did not happen. The revenue shortfalls continued to mount at rates of over Z\$100 million a year and needed plant refurbishment could not be made. Exports of steel billets continued even though the world market prices implied losses to the corporation at the official exchange rate.

By the time the economic reform programme began in 1991 the corporation was technically bankrupt, with debts of over Z1.3 billion, most of it owed to the government. A capital investment programme of Z3.0 billion was needed to refurbish the two blast furnaces and ancillary equipment. The smaller of the two furnaces could supply 60 per cent of the domestic market, whereas the larger unit was needed if exports were to continue and enough coke produced to support an industrial chemicals industry. While the iron ore and coal deposits indicated a comparative advantage in the region for the production of steel, the management skills were lacking. Offers made by foreign investors to buy and operate the plant did not guarantee against an immediate cessation of exports, particularly in the face of export incentives granted to the major competitor in the region, ISCOR of South Africa.

FISCAL REFORM AND INDUSTRIAL POLICY

Fiscal reform, when reduced to its bare essentials is aimed at improving the efficiency of government expenditures from tax revenue. Output is a function of both public and private investment, labour supply and total factor productivity. The two types of investment expenditures should be complementary, not competitive. The supply of unskilled labour is exogenous to this process, but the provision of human capital which accentuates total factor productivity is itself a function of investment expenditures. Private investment is motivated by long-term net returns after taxes. As such, therefore taxes play a dual role. They enhance profits by financing government capital formation, but reduce net returns when imposed on investment income. Government expenditures of a purely redistributive nature do not enhance output, but reduce returns on investment and thus lower growth. There exists a trade-off between redistribution and growth. This model does not preclude a budget deficit, but it should be a (low) constant or declining share of GDP. Given non-decreasing returns to scale, the relationship between government capital expenditures and the growth rate of GDP is non linear. In the early

phases of development the net impact of government expenditures would be growth promoting. As the economy expands the relationship is reversed. The policy issue is to establish a tax rate (and thus government expenditures) such as to maximize the GDP growth rate or some composite objective function (Alesina and Rodrik, 1994). Restoring the fiscal balance should be accompanied by a re-orientation of government expenditures toward growth (i.e. expenditures on fixed capital and economic services) and a reform of the tax system with a view toward efficiency and equity.

The challenge is in taking a dynamic approach when making such re-allocations and reductions. If the focus is more on restoring the fiscal balance there is a danger it will be achieved at the expense of economic services. Expenditures to expand the national technological capabilities do not necessarily confer immediate output benefits. Some of the expenditures on disease prevention, foreign technical expertise and labour training can only confer long-term benefits and tend to be the priority targets for budget cuts.

Large government deficits are associated with an increase in the money supply, and upward pressure on prices and interest rates. In SSA gradual reform programmes government deficits have been more intractable than, for example, price decontrol or exchange rate adjustment, because of the difficulty in reducing the size of the civil service and subsidies. Short-term growth prospects will be further reduced as credit rationing becomes necessary in the face of imperfect financial markets. The challenge to policy-makers is how to maintain a pace of investment, particularly in the case of small enterprises with no financial reserves or a credit history. A solution would be to open a "second window" for concessional funding of qualifying investment projects. Interest rates should reflect the expected long-term levels and be permitted to vary with the cost of funds. Whatever the measure, it should be simple to administer, and efficient. Ghana, for example, responded to declines in investment, by introducing an investment code which provided tax incentives which varied by industry and activity. It proved difficult to administer and made tax laws inefficient.^{27/} The same result occurred in Zimbabwe. In an attempt to give preferential treatment to new investment company tax laws, depreciation and dividend remittance allowances were differentiated on the basis of when the investment was made. Again, the result made tax laws inefficient, and investment decisions subject to more uncertainty.

Promoting Small Enterprise

Policies to support small and medium scale enterprises (SMEs) have now assumed a multi-faceted purpose. The primary cause is to increase total factor productivity by alleviating the disadvantages faced by small businesses due to market imperfections. The strategy includes assistance in modernizing facilities, improvements in technical standards, including technological research and development and the training of technicians and skilled workers. Promotional activities include market research and co-ordination of business activities with larger enterprises in such areas as sub-contracting.^{28/} In SSA countries SMEs are considered a potential tool in the

^{27/} Kapur et. al. (1991).

^{28/} *Industrial Policy in Asia*, op. cit., p. 20.

industrialization process. They can operate in those areas where scale economies are not a major constraint. Given the relatively small domestic markets for industrial goods SSA countries view them as vital to diversification of the economic base.

With the initiation of economic reform programmes SMEs have assumed the additional role of providing a means of livelihood for displaced workers, including civil servants. This includes activities in the informal sector. The assumption is the labour force is already skilled and entrepreneurial ability can also be acquired. It is not an innate quality. This displaced labour is assumed to be capable of becoming entrepreneurial. While this may be a debatable assumption the impact of this new approach is to increase the demand on resources at the expense of technological improvements. SME policy then runs the risk of being an income maintenance programme to be associated more with necessary costs to alleviate the social costs of adjustment, rather than as an instrument for growth. This will be more pertinent if the support measures include market distorting incentives. A more appropriate approach might be to identify growth-oriented sectors with a role for SMEs and then provide the above sector-oriented services without earmarking the support for the previously employed.

The most important measures in supporting SMEs have to do with deregulation of the economic environment. This includes measures governing the location of industry, stringent health standards and building codes or marketing restrictions. The challenge is to discriminate between necessary and overly restrictive measures that are biased against SMEs in particular (Box 3). On the other hand, the pre-reform exchange controls and market restrictions fostered parallel market activities in both trade and industrial activity. Some of the activities, particularly in the distribution and services sector will turn out to be unprofitable under free market conditions and should not be supported. In addition, the support should be for growth-promotion purposes, not to make inherently unprofitable operations viable. Given the focus on externalities associated with an export-oriented outlook, a technologically skilled national and firm labour force, the policy should address these sector specific issues, not individual firm requests. That makes the choice of the target sectors paramount.

Box 3

DEREGULATING THE FOOD MILLING INDUSTRY IN ZIMBABWE

Until 1993 the marketing of maize meal in the urban areas had been the preserve of large-scale approved millers. Their market shares were protected through regulations that prohibited the purchase of maize in small quantities from the state marketing board, the Grain Marketing Board, or the transportation of maize meal from rural hammer mills for the purpose of resale in the urban areas. Noise prevention regulations prohibited the installation of hammer mills within the urban perimeter. Consumer prices of maize meal marketed by the approved millers was subsidized, with the difference between the miller costs (and a guaranteed 19-30 per cent rate of return) and the market price being paid to the millers as a subsidy. Unapproved millers could not qualify and rural hammer mills saw their markets eroded by the sale of the subsidized product.

The drought of 1991-92 resulted in imports of higher priced maize. In an effort to reduce the impact on both the consumer and the budget, part of the price increase was passed on, but regulations on hammer mills were removed. The subsidy was now payable through the marketing board so that payments to established millers stopped, obviating the need for registration. Individuals also could purchase maize in small quantities from the Grain Marketing Board. The milling charges by hammer mills were one-fifth of those of the large-scale units. In the 1992/93 sales of maize through the large-scale millers fell 40 per cent as over 200 hammer-mill operators were set up in the urban centers.

Regional Integration and Industrial Policy

The history of regional integration in SSA is well known. The overriding aims had to do with overcoming the obstacles posed by scale economies. The other had to do with strengthening their bargaining power in the primary commodity markets. The second issue is not pertinent to this paper.

The case for economic integration as a way of overcoming scale economies is summarized elsewhere (African Development Bank, 1993). There can be efficiency gains from enlarging the markets and eliminating the losses associated with small markets. Efficiency gains can also be the result of trade liberalization which allows for the rationalization of national economic structures, investment flows and gains from scale efficiencies. In the case of Southern Africa the study concludes most of those benefits are in the domain of infrastructure development benefits which can be captured by investments in infrastructure and common services - energy, transportation, financial sector and tourism. The removal of tariff and non-tariff barriers, liberalization of

exchange rate and investment regulations would then allow private investors to make investment decisions on the basis of comparative advantage and generate welfare benefits for the whole region.

Most of the regional infrastructure projects relied on donor finance. This was particularly the case with the Southern Africa Development Conference (SADC). Given the emergence of South Africa as an accepted member of the region this source of finance will inevitably decline. Another alternative is international borrowing, with all the attendant sovereignty issues since the administrative secretariats normally do not have such powers vested in them. This is in addition to all the other technological challenges. A third alternative would be to let the private sector invest and operate such projects, either under some regional authority or on their own. The SADC countries individually would have to accept privatization of what have up to now been public domains. Privatization of existing entities is proving to be a slow process. The process could be accelerated with new projects where the capital requirements pose a challenge to the individual countries and international investors are concerned about scale economies.

One of the major problems to private sector investments within a regional context has been the drive by each country to have the facilities within its own borders. Employment generation carries more weight than welfare benefits generated through lower prices. The result in the past has been inefficient investment decisions based on non-market criteria, and everybody has lost (Box 4). There is no standard solution to the problem. However, if the member countries choose industrial sectors for support on the basis of comparative advantage then they are more likely to accept benefits from other sectors accruing to the other countries.

Box 4

BOTSWANA SUA PAN PROJECT - WHAT NOT DO DO

The governments of South Africa and Botswana established a joint venture, Soda Ash Botswana (SAB) to exploit the salt deposits at the Sua Pan for the production of soda ash, an input in the production of glass. Private sector firms were invited to join for the purposes of providing technical expertise. The project was designed to substitute for imports of synthetic ash into the South African markets, and expectations were that exports were viable. Although currencies were convertible for the purpose of this project, both countries were more interested in generating demand for domestic inputs.

The agreements were drafted in such a way that capital investments from the two governments included materials for the erection of the plant, evaluated at domestic prices. Inevitably, the joint venture was under-capitalized and capital costs higher than would have been the case under open market operations. The SAB in turn guaranteed the government of Botswana minimum levels of water, power and rail services to be purchased.

Box 4 continued

The plant supposedly cost \$500 million. Apparently the feasibility study overestimated potential export sales by 40 per cent. South African prices of soda ash have fallen as imports from the USA, Kenya and elsewhere. Now the project is applying for anti-dumping duties to the South African customs Union. South Africa would then have to weigh the benefits of supporting SAB and the price effects of the higher tariffs on its own downstream industries.

SUMMARY AND CONCLUSIONS

The history of economic policy in SSA countries reflects the importance of trade to the economies and the dominance of primary commodity exports in trade, income and employment. The institutional approach was to regulate the economy in an attempt to mitigate the impact of negative external shocks. At the same time, governments actively intervened in an effort to stimulate diversification of the economy by creating import-substituting industries. The problems with the policy have been enumerated, but the major result was the lack of meaningful industrialization, while the growth of traditional exports declined both as a result of adverse price trends and declining output.

Trade has been shown to be an engine of growth elsewhere, most notably South East Asia. The major reason has to do with the increase in total factor productivity made possible by the incomes, investment and externalities trade generates. Because trade (exports and imports) declined, total productivity lagged behind faster growing regions.

A major component of the distortions now being addressed by economic reform programmes were the result of balance of payments problems caused in turn by falling exports. There is now a move toward economies managed along the dictates of the market. The belief is that this framework will create conditions that are favourable for total factor productivity growth. The experience in the NICs show that government industrial policies can play a promotional role by judiciously targeting sectors that can best promote investment technology transfer and total factor productivity growth. The issue is not growth in the export sector alone, but also in the rest of the economy. That, by implication, means the economy has the capacity to take advantage of the technology, and this is an area government industrial policy has a role.

There are resource constraints which now make past policy actions impossible to implement. Budget constraints eliminate direct government investment in areas open to the private sector; our analysis also shows that to be inefficient. The policy tools available for the government should be trade neutral, i.e. they should be applied regardless of whether the output is destined for export or the domestic market. The policy goal should be to create a skilled labour force and technical capabilities such that static comparative advantage can continue into the future for traditional exports, and new areas in which the country would have a future advantage on the international market.

Structural adjustment programmes, when implemented gradually, create short-to-medium term problems of their own. These can cloud long-term growth prospects. High inflation and interest rates coupled with credit rationing, at least in the short term, might hinder investment which could be productive in the long term. There have to be some market neutral remedies which, however, have to be of a short-term duration and with performance guidelines that trigger termination.

Small scale enterprises (SMEs) are seen as a tool for overcoming rigidities that are inherent in large operations. They are flexible, and because of their investment requirements, can be set up to supply relatively small markets. Their size militates against large investments in technology, and this is where government policy can assist through a sectoral approach. Structural adjustment problems have generated short term unemployment and governments have resorted to SMEs as a source of livelihood for the previously employed. This is not a growth-oriented approach except if it is applied to areas where technological change could increase output per unit of all inputs.

Regional integration has been effective in generating infrastructure where scale economies are important and the interests of the participating countries are evident. Most of the projects have relied on foreign aid. Conditions now are such that this source of financing may not be so readily available. Given individual budgetary constraints and efficiency considerations, there is every incentive to allow privatization of such activities. It may be easier with new projects where the private sector identifies the opportunity and bears the risk. Government policies, however have to be such as to promote private sector participation. The difficulty is that the countries have to coordinate policies with regards to ownership, pricing and tariffs.

REFERENCES

- A. Alesina and D. Rodrik (1994), "Distributive Politics and Economic Growth". *Quarterly Journal of Economics*, Vol. 99, No.2, pp. 465-90.
- D. Dollar (1992), "Outward-Oriented Developing Economies Really Do Grow More rapidly: Evidence from 95 LDCs, 1976-85", *Economic Development and Cultural Change*, Vol. 40, pp. 523-44.
- R. Erzan, and P. Svedberg (1989), "Protection Facing Exports from Sub-Sahara in the EC, Japan and the US", *Policy Planning and Research Working Paper Series No. 320*, The World Bank.
- M. T. Hadjimichael, D. Ghura, et. al., "Sub-Saharan Africa: Growth, Savings, and Investment, 1986-93". International Monetary Fund, Washington, D.C.
- P. Harrold (1995), "The Impact of the Uruguay Round on Africa: Much Ado About Nothing?" Paper Presented at The Uruguay Round and the Developing Countries.
- R. Inoue, H. Kohama, and S. Urata (eds.) (1993), "Industrial Policy in East Asia". Japan, JETRO.
- C. Johnson (1984), "The Industrial Policy Debate". San Francisco, California: Institute for Contemporary Studies.
- S. Jacobsson (1993), "The Length of the Infant Industry Period: Evidence from the Engineering Industry in South Korea", *World Development*, Vol. 21 No. 3, pp 407-419.
- I. Kapur, M.T. Hadjimichael, et.al. (1991), "Ghana: Adjustment and Growth, 1983-91". The International Monetary Fund Occasional Paper No.86.
- Anil Lal (1994), "Impact of Uruguay Round Agreements on Least Developed Countries' Exports: An Initial Assessment". International Trade Division, The World Bank, 27 December 1994, mimeo.
- S. Lall (1992), "Technological Capabilities and Industrialization", *World Development*, Vol. 20, No. 2, pp. 165-186.
- (1994), "The East Asia Miracle: Does the Bell Toll for Industrial Strategy?" *World Development*, Vol. 22, No. 4, pp. 645-54.
- A. Mody and K. Yilmaz (1994), "Is There Persistence in the Growth of Manufactured Exports?" The World Bank Policy Research Working Paper No. 1276.
- H. Pack (1993), "Productivity and Industrial Development in SSA", *World Development*, Vol. 21, No. 11, pp. 1-16.

H. Stein (1992), "De-industrialization, Adjustment, the World Bank and the IMF in Africa", *World Development*, Vol. 20, No. 1, pp. 83-95.

L. Westphal (1986), "Industrial Strategy and Technological Change: Theory versus Reality", *Journal of Development Economics*, Vol. 22, pp. 87-128.

A. Yeats (1991), "Do Natural resource-Based Industrialization Strategies Convey Important (Unrecognized) price Benefits for Commodity-Exporting Developing Countries?", *The World Bank Policy, Research, and External Affairs Working Papers* No. WPS 580.

(1994), "What Are OECD Trade preferences Worth to Sub-Saharan Africa?" *The World Bank International Economics Department, International Trade Division, Policy Research Working Paper* No. 1254.

ANNEX TABLES

Table A.1. AVERAGE, PER CAPITA GDP GROWTH RATES FOR SSA COUNTRIES, 1960-93 (PERCENTAGE)

Country	1960-70	1970-79	1980-93	Per Capita	
				1970-80	1980-91
Botswana	5.7	13.5	9.4	9.7	6.4
Benin	2.6	3.3	3.4	-0.3	-0.5
Cameron	3.7	5.4	1.5		
C.A.R.	1.9	3.3	0.4	0.0	-1.1
Chad	0.5	-0.2	5.0	-2.9	3.9
Congo	2.7	2.9	5.3		
Ethiopia	4.4	1.9	-	0.0	-0.9
Gabon	4.1	7.7	n.a.	n.a.	n.a.
Ghana	2.1	-0.1	2.7		
Guinea	3.5	3.6	-	2.9	-3.1
Côte d'Ivoire	8.0	6.7	-1.1	-	-
Kenya	6.0	6.5	3.5		
Lesotho	4.6	7.0	3.8	7.0	1.8
Liberia	5.1	1.8	-	-0.8	-3.9
Malawi	4.9	6.3	2.4	2.8	-0.3
Mali	3.3	5.0	1.5	2.6	-0.5
Mauritius	1.6	8.2	-		
Mauritania	-	1.9	2.7	-1.2	-1.0
Mozambique	4.6	-2.9	0.7	-4.9	-1.7
Niger	2.9	3.7	1.1	-1.3	-4.1
Nigeria	3.1	7.5	-	-	-
Rwanda	2.7	4.1	2.0	1.4	-2.5
Sudan	1.3	4.3	2.0	2.2	-2.3
Tanzania	6.0	4.9	3.4	-0.6	-0.6
Togo	8.5	3.6	0.3	1.3	-1.2
Uganda	5.9	-0.4	2.6	-5.2	1.8
Zaire	3.6	-0.7	-0.4	-3.2	-2.0
Zambia	5.0	1.5	1.3	-1.5	-2.7
Zimbabwe	4.3	1.6	4.0		
SSA	3.9	2.9	-1.1		
L. America		5.4	1.4		
S.E. Asia		5.6	5.1		

Source: World Bank: World Development Report, 1995.

Table A.2. DISTRIBUTION OF GDP, 1965, 1990 (PERCENTAGE)

Country	Agriculture		Industry		Manufacturing		Services	
	1965	1990	1965	1990	1965	1990	1965	1990
Benin	59	37	8	15	n.a.	7	33	48
Botswana	34	3	19	57	12	6	47	40
Burundi	n.a.	56	n.a.	15	n.a.	10	n.a.	29
Chad	42	38	15	17	12	14	43	45
Cameroon	33	27	20	28	10	13	47	46
Somalia	71	65	6	9	3	5	24	26
Niger	68	36	3	13	2	5	29	51
Ethiopia	58	41	14	17	7	11	28	42
Mali	65	46	9	13	5	8	25	41
Malawi	50	33	13	20	n.a.	14	37	46
Rwanda	75	38	7	22	2	15	18	40
Tanzania	46	59	14	12	8	10	40	29
Zaire	20	30	32	33	n.a.	13	48	36
C.A.R.	46	42	16	17	4	n.a.	38	41
Madagascar	25	33	14	13	n.a.	12	61	54
Uganda	52	67	13	7	8	14	35	26
Lesotho	65	24	5	30	1	14	30	46
Togo	45	33	21	22	10	9	34	46
Sudan	n.a.	54	n.a.	9	n.a.	4	37	n.a.
Kenya	35	28	18	21	11	11	47	51
Ghana	44	48	19	16	10	9	38	37
Senegal	25	21	19	18	14	13	56	61
Liberia	n.a.	27	n.a.	40	n.a.	3	34	-
Zambia	14	17	54	55	6	43	32	29
Zimbabwe	18	13	35	40	20	26	47	47
Nigeria	55	36	12	38	5	7	33	25
Congo	19	13	19	39	n.a.	7	62	48
Mauritius	16	12	23	33	14	24	61	55
Angola	n.a.	13	n.a.	44	24	26	48	51
Gabon	26	9	34	49	7	7	40	42
SSA	40	32	20	30	7	n.a.	39	40
S.E. Asia	37	21	32	45	24	34	30	36
L. America	16	10	33	36	23	25	50	54

Table A.3. COMMODITY PRICE TRENDS, 1960-1993 (PERCENTAGE)

Commodity	Volume			Prices		Instability Index
	Average Annual Growth					
	1960-70	1970-79	1980-93	1970-80	1980-93	1980-93
Copper	2.3	-0.3	-3.4	-18.7	6.2	16.4
Manganese	14.1	0.2	-4.7	- 1.1	13.3	22.6
Iron ore	25.6	-3.9	-	-13.0	3.5	4.2
Coffee	4.4	0.4	2.4	3.9	-10.5	16.4
Cocoa	0.8	-1.1	3.5	7.5	-9.8	8.7
Tea	9.3	5.0	5.9	-2.8	-2.9	17.4
Tobacco	-2.7	7.2	12.5	-1.0	0.5	6.0
Cotton				-2.2	0.3	14.4
Maize				-0.5	-2.0	11.7

Source: CRB Commodity yearbook.

Table A. 4: Commodity Structure of LDCs' Exports During 1990-92 (in Percent)

	1990-92 Av. Exports (000 \$)	Food	of which Tropical Products	Oil and Oilseds	Agric. Raw Materials	Mineral Fuels	Ores and Metals	Manuf.	Of which Textiles	Clothing	Wood, Rubber, Leather, etc.	Others	Total
Aula	3239662	15.82	12.18	1.52	16.84	0.97	0.92	65.08	14.25	40.36	4.59	0.36	100.00
Algeria	1081319	19.12	0.62	0.27	36.49	0.01	1.33	42.58	34.78	1.29	0.89	0.27	100.00
Angola	1967381	11.14	5.20	0.00	4.76	1.32	0.20	82.90	12.63	59.01	6.95	0.24	100.00
Bhutan	9207	51.20	17.50	0.23	2.38	2.73	8.04	34.70	0.66	0.32	6.77	0.76	100.00
Cambodia	87242	6.07	55.37	2.87	65.23	0.35	3.36	24.67	0.15	22.75	0.06	0.33	100.00
Laos PDR	83033	4.23	7.71	0.23	55.38	0.08	6.80	32.68	0.25	26.95	2.18	0.82	100.00
Maldives	199318	55.40	0.07	0.26	0.24	0.01	0.15	43.67	0.31	40.66	0.06	0.52	100.00
Nyameyar	648379	32.54	39.95	6.06	48.31	0.42	2.61	15.68	0.10	3.57	0.51	0.44	100.00
Nepal	307712	9.77	1.46	2.15	1.11	0.70	7.92	87.35	56.61	23.30	0.00	0.20	100.00
Yemen	8330	84.90	48.76	0.00	3.76	0.00	0.00	3.23	0.81	0.48	0.49	1.46	100.00
Africa	9425459	23.49	17.00	1.06	12.15	3.12	32.86	37.72	0.81	0.48	0.48	0.33	100.00
Denin	109386	18.60	4.82	13.98	32.92	18.07	1.44	8.64	2.84	0.11	0.11	0.48	100.00
Botswana	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Burkina Faso	104196	14.24	2.26	2.49	79.83	0.01	0.15	5.05	0.24	0.23	1.96	0.72	100.00
Burundi	77871	86.44	84.60	0.01	5.56	0.00	4.27	3.25	0.51	0.35	0.32	0.48	100.00
Cape Verde	9154	89.38	21.76	4.56	1.36	0.04	1.05	27.88	0.02	1.36	0.48	0.29	100.00
Comoros	118041	9.93	15.44	0.20	20.37	0.61	1.47	67.28	0.10	0.03	0.44	0.13	100.00
Chad	89307	0.55	0.15	0.05	93.42	0.00	0.09	5.41	0.18	0.02	0.04	0.53	100.00
Cote d'Ivoire	29332	64.71	64.51	0.00	0.32	0.11	0.01	33.92	0.30	0.76	0.45	0.73	100.00
Djibouti	22100	14.35	7.25	1.11	11.33	3.80	4.94	63.26	10.76	0.59	6.40	2.11	100.00
Eg. Guinea	42329	22.18	81.76	0.00	69.44	0.30	2.33	5.74	0.02	0.02	4.88	0.32	100.00
Ethiopia	243089	55.81	49.65	0.84	18.29	0.50	0.18	33.50	0.53	2.25	8.24	1.72	100.00
Gambia	179937	39.76	0.32	3.76	0.79	0.00	0.26	59.10	0.04	0.11	0.17	0.08	100.00
Guinea	669424	4.10	2.84	0.08	1.00	0.00	64.35	30.38	0.01	0.01	0.02	0.37	100.00
Guinea-Bissau	28537	68.67	51.64	4.04	9.72	16.23	0.85	3.67	0.02	0.19	0.23	0.86	100.00
Lesotho	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
Liberia	1305555	0.37	10.17	0.02	10.33	3.97	6.17	77.77	0.03	0.71	0.07	1.18	100.00
Madagascar	319813	71.60	39.45	0.64	4.56	0.85	7.66	14.98	5.32	4.08	0.72	0.36	100.00
Malawi	318062	92.31	85.39	0.07	2.62	0.00	0.11	4.44	1.61	1.58	0.09	0.33	100.00
Mali	192933	3.24	1.30	0.95	72.50	0.00	0.72	23.16	0.24	0.26	0.51	0.38	100.00
Mauritania	463346	41.96	0.09	0.00	0.17	1.72	34.67	0.75	0.03	0.13	0.03	0.73	100.00
Mozambique	370753	32.85	11.49	0.64	6.02	3.43	16.68	40.61	1.19	1.01	0.20	0.41	100.00
Niger	241364	1.44	0.51	0.21	1.32	0.47	8.54	81.70	0.24	0.08	0.41	6.54	100.00
Rwanda	112593	82.98	81.68	0.00	8.28	0.00	5.69	2.89	0.01	0.04	0.23	0.16	100.00
Sao Tome and Principe	3104	80.44	71.92	1.69	0.41	0.03	0.31	18.08	0.37	0.38	0.50	0.72	100.00
Sierra Leone	300403	14.32	5.67	0.02	0.28	0.00	33.53	51.37	0.14	0.24	0.04	0.30	100.00
Somalia	64607	86.61	20.48	1.83	13.00	0.10	2.26	3.55	0.16	0.49	0.29	0.48	100.00
Sudan	357225	56.59	0.36	10.91	67.03	1.37	0.85	3.60	0.49	0.04	0.47	0.56	100.00
Togo	204867	17.05	9.82	2.50	22.29	2.48	51.50	4.63	0.08	0.27	0.19	1.05	100.00
Uganda	205812	85.65	76.54	4.11	11.76	0.01	0.28	2.22	0.03	0.11	0.15	0.08	100.00
United Rep. of Tanzania	405719	55.63	43.55	2.48	20.86	0.63	7.96	14.16	5.99	1.17	0.55	0.75	100.00
Zaire	1666439	7.86	10.01	0.07	4.46	10.89	48.58	23.42	0.01	0.05	0.39	4.79	100.00
Zambia	1215684	1.85	1.23	0.02	0.64	0.17	93.35	3.82	0.84	0.14	0.07	0.17	100.00
Zimbabwe	454912	23.99	21.77	8.21	11.19	0.00	0.48	46.64	3.37	36.94	3.70	3.61	100.00
Ivory Coast	303482	11.07	8.71	0.01	0.65	0.00	0.22	85.33	4.88	46.03	3.97	2.73	100.00
Kiribati	4156	41.09	23.32	21.09	1.20	0.00	1.32	56.21	1.40	3.06	0.04	0.18	100.00
Samoa	20639	91.69	9.03	4.37	4.37	0.03	5.17	46.74	0.02	1.28	0.03	2.11	100.00
Solomon Islands	91967	43.47	59.32	12.72	47.27	0.00	0.20	1.89	0.02	0.31	0.07	1.17	100.00
Tuvalu	705	29.48	5.12	3.97	5.02	0.00	0.64	63.95	0.24	20.10	0.11	0.92	100.00
Vanuatu	26964	81.50	40.23	31.74	6.05	0.01	0.67	9.58	0.03	0.87	0.64	2.19	100.00
LDC	13320833	21.87	16.20	1.31	13.19	2.48	23.28	37.91	4.14	31.34	1.55	1.26	100.00
WORLD	3321909726	9.52	1.48	0.70	2.99	10.06	3.68	72.85	3.13	3.76	1.78	0.27	100.00
LDC/World in percent	3321909726	0.33	3.9	0.76	1.78	0.1	2.55	9.21	0.53	1.22	0.35	0.24	100.00

Source: Comtrade Data Base, UNSC.

Note: Based on partner country import statistics.

The above figures are average for 1990-92.

Exports from Botswana and Lesotho are recorded in totals for South African Customs Union and hence are not available separately.