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CONSTRAINTS TO THE DEVELOPMENT AND DIVERSIFICATION OF NON-TRADITIONAL EXPORTS IN UGANDA, 1981-90

G. N. SSEMOGERERE
and
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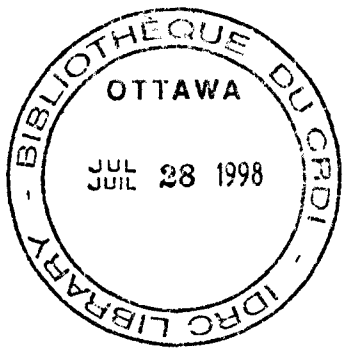

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List of acronyms

CMB	Coffee Marketing Board
DRC	Domestic resources cost
EPADU	Export Promotion and Development Unit
GATT	General Agreement on Tariffs and Trade
ICO	International Coffee Organization
LDC	Less developed countries
LMB	Lint Marketing Board
MDC	More developed countries
PMB	Produce Marketing Board
PTA	Preferential trade area
ULATI	Uganda Leather and Tanneries Industries
UNCTAD	United Nations Conference on Trade and Development

Abstract

The foreign exchange cash-flow of Uganda has reached a crisis. Expenditure requiring foreign exchange is on the increase as the economy grows, while foreign exchange receipts have dwindled over the past four years from about US$400 million to a cashflow position of about US$100 million.

This study investigates the constraints which prevent exports receipts from increasing in response to the exchange rate reforms since 1981.

The first conclusion drawn from this study is that exchange rate policies, unless pursued within a consistent macroeconomic stabilization framework, cannot enlist a significant response from exports producers.

Second, it is clear that other constraints encompassing institutional reforms and infrastructural reconstruction must also be addressed before a country can develop dynamic comparative advantage.

I Statement of the problem

Introduction: the problem

Whereas in the 1960s Uganda's export base was diversified, since the early 1970s the sources of export earnings have been narrowing and are now almost exclusively coming from coffee, which by 1989 accounted for 97% of the total value of export receipts.

The danger of this narrow export base has been demonstrated dramatically over the past three years. When the International Coffee Organisation (ICO) quota collapsed, and the international price of coffee declined from US$3.3 per kg in 1986 to US$0.98 per kg. in 1990, Uganda's foreign exchange earnings dropped from the all-time high of US$394 million in 1986 to US$179 in 1990, a decline of 54% in four years.

Although the possibility of short-run price increases cannot be ruled out, the long-term prospects of rising international coffee prices are poor, given world wide over production and existing stocks. Therefore, the downward trend in Uganda's earnings is likely to continue as long as coffee dominates the export base.

The demand for imports, to reconstruct the productive structure of the economy and to provide essential consumer goods, has risen from US$438 million in 1986 to US$740 million in 1990, an increase of 68% in four years. The imports financed by loans and grants totalled US$228 million in 1987 or 36% and US$333 million in 1988 or 53% of the total value of imports. The figures for 1989 are US$494 million or 69%.

This indicates a dangerous trend emerging, of an import-intensive economy whose exports earnings are continuously declining. If the country had to pay all due external debt obligations, i.e., all maturities without rescheduling debt from bilateral donors under the Paris Club Agreement, the debt service ratio in 1990 stands at 106% of total exports earnings, leaving nothing to meet import requirements.

In the financial year 1990/91, Uganda could not pay monthly oil imports bill which averaged around US$10 million since foreign exchange earnings had dropped to an average of US$9 million a month. This situation was aggravated

by the Gulf crisis, which more than doubled the international prices of petroleum products. The case for export development and diversification away from exclusive dependence on coffee is well illustrated by the above statistics and cannot be overstated: this is the problem to which economic policy must find an immediate answer.

Constraints to export development and diversification

The deterioration of Uganda's export base occurred during the 1970s. Policies since 1981 to diversify the export base have not produced visible difference in the export statistics. The projected contribution of non-traditional exports to foreign exchange receipts has been estimated at around US$100 million by the Ministry of Planning and Economic Development. The Government, aware of the gravity of the problem, has pursued very liberal policies for the past three years to promote exports diversification. To date, however, the response indicates that foreign exchange receipts from non-traditional exports have been far below the projected Export Promotion and Development Unit (EPADU) figure of US$100 million per annum, increasing only from US$1.06 million in 1987 to US$22.64 million in 1989. This suggests that there are serious constraints to export development and diversification which need to be investigated with care.

Objectives of the study

The first objective of this study is to identify existing and prospective non-traditional exports with good potential in the international and regional markets, and to study how rapid expansion of these exports is being affected by current policies, with a view to suggesting changes tailored to broad categories of commodities and sources.

The second objective is to identify the constraints to export development and diversification in some detail, and, where possible, to rank them in order of relative importance which points clearly to specific problems for first policy attack.

The third objective is to review current policies to explain why they have been unable to make a difference in export performance and to identify those policies which need overhauling to bring about a rapid change in the export base and earnings in the near future. The fourth objective is to suggest policy recommendations.

Scope of the study

The general thrust of this paper is on constraints to export development and diversification. References to specific exports are reserved for illustrative purposes only, as specific constraints need case studies.

Outline of the study

The paper is divided into seven sections. After this introduction, there follows a review of the macro-economic framework of the 1970s that led to the deterioration of the export base. The third section is a survey of the literature on export development and diversification, while the fourth sets out a methodology to study export development and diversification in the light of Uganda's data problems. The fifth section identifies exports for immediate development and diversification, while the sixth is a review of the policies of the 1980s and their effects on the constraints to export development and diversification. This includes comparisons of Tanzania and Kenya, countries with similar development problems but competing more successfully against Uganda in the international and regional preferential trade area (PTA) markets. The final section ranks the constraints that policies have been unable to ameliorate, and suggests policy changes.

Important terminologies

'Traditional exports' are those raw materials which constituted the export structure of the colonial period: coffee, cotton, tea, tobacco, sugar and copper (GOPA Consultants, 1984).

'Non-traditional exports' are all other commodities which sprung up since 1962; agricultural raw materials, processed food stuffs and manufactures.

'Export diversification' refers to changing the composition of exports, i.e., the relative contribution of each export category to total export earnings, with a view to establishing a wider variety of exports with good market prospects abroad and not subjected to identical swings in international prices. Therefore, it is not diversification per se but changing the composition of exports with a purpose of increasing foreign exchange earnings (IMF,1987).

'Export development' is a wider term covering: laying the physical infrastructure and formulating an institutional framework for export promotion, including establishing the data base, searching and developing export markets; solving the technological problems to increase exports production by providing

inputs and training, and giving adequate economic incentives to export producers (Bennet, 1989), and improving the macroeconomic framework to provide a favourable climate for exports and economic growth generally.

II From export diversification to concentration

With the exception of the *Industrial Sector Memo* of 1986, the literature covering the 1970s and 1980s is general in its analysis. It focuses on the macroeconomic, as opposed to microeconomic, policies pursued by Amin's military regime 1972-79 which disrupted the economy from its growth path of the early and mid-1960s.

This section departs from this approach in two respects: first, it is narrow in scope and focused on the export sector. Second, it presents an overall perspective both macro and micro, of the disruptive policies that were pursued by the military regime, as well as the development opportunities that were missed, to maintain and expand Uganda's diversified export base, inherited from the post-independence era.

An overall perspective is necessary initially to appreciate the constraints facing the export sector today, and to make pertinent recommendations.

The period up to 1972

Uganda's export base from independence in 1962 until 1972, diversified. The 'traditional exports', consisting of agricultural raw materials had been encouraged by colonial policy to raise tax revenue. They consisted of coffee, cotton, tea and tobacco, in order of relative importance. Copper, the only mineral mined is economic quantities, was also exported unprocessed and contributed up to 10% of total export receipts. Table 1 shows the 'traditional raw materials exports' to Europe inherited from the colonial trade pattern.

It is important to investigate how the economy adjusted to colonial policies in order to identify which production and demand factors explained the apparent success of the traditional exports. Post-independence policies would have had to take these factors into account (without necessarily continuing colonial policy) in order to develop the export sector.

Table 1 Composition of exports 1968-89, (f.o.b., US$ million)

Commodity	1968	1969	1970	1971	1972	1973	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990
Coffee	102.1	111.4	144.9	140.3	161.2	215.5	338.7	241.7	340.0	339.7	359.0	355.0	397.3	311.1	260.3	151.7	141.6
Cotton	42.2	35.9	50.1	50.3	52.6	48.0	4.3	2.2	3.3	11.6	12.4	15.4	5.1	4.1	3.1	0.2	5.7
Copper	15.9	25.6	23.6	19.7	16.1	15.6	-	-	-	-	-	-	-	-	-	-	-
Tea	10.6	13.3	13.5	13.6	18.0	1.5	0.3	0.3	0.8	1.2	3.2	1.1	3.2	1.9	1.2	0.4	3.5
Animal feeds	5.4	6.0	6.9	4.9	4.4	6.4	-	-	-	-	-	-	-	-	-	-	-
Hides and skins	2.9	3.8	3.8	3.0	6.5	4.5	-	-	-	3.2	4.5	-	-	-	-	-	-
Sugar	0.3	2.5	0.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Unmanufactured tobacco	0.4	2.4	1.1	1.9	-	1.7	0.3	-	-	0.9	1.5	0.3	-	-	0.6	-	2.1
Maize and beans	-	-	-	-	0.9	-	-	-	0.6	11.3	10.1	3.1	1.1	-	0.3	-	-
Other exports	-	-	-	-	-	-	2.2	2.5	0.7	2.1	6.6	4.3	4.7	3.1	2.9	4.9	-
Barter trade (of which 70% is coffee)															49.3	94.4	-
Total	179.3	200.9	244.5	233.7	259.7	293.2	345.8	246.6	346.4	370.0	397.3	379.3	411.4	320.2	322.3	251.6	178.7
Coffee as % of total	56.8	55.4	59.3	60.0	62.1	73.5	97.8	97.9	98.2	91.8	90.4	93.6	96.6	97.1	92.1	97.8	69.8

Note: The table is divided into three sections according to the major factors that influence the changes in the composition of exports, corresponding to year 1973, 1981 and 1986.
Source: Bank of Uganda *Quarterly Economic Report*. Figures for 1974-80 are not available in US$.

The comparative advantage in producing the new cash crops of coffee and cotton depended on suitable weather and good soil, which was to be exploited by a simple peasant technology. In this respect, Uganda was similar to other colonies where:

> ... [when] a new cash crop is introduced, the essence of its success as a *peasant* crop depends on the fact that it does not represent a radical departure from the existing techniques of production (Myint 1971, p. 78)

Specialization in production depended on nature and traditional technology, with little any new investment, except in infrastructure, to carry the output to the processing and export centre. Mining at Kilembe, however, used advanced technology, but depended on capital inflow from Canada plus skilled and semi-skilled labour from the Asian community which came to Uganda under the protection of the colonial umbrella (Republic of Uganda, 1973 and 1981; Bank of Uganda, 1970 and 1974).

On the demand side, favourable international commodity prices following the Korean war, and the stockpiling of raw materials motivated by the cold war, provided an excellent international market for coffee, cotton and copper. The large savings from the all time high world prices of raw materials were put into the Price Assistance Fund set up by the Marketing Boards, and were used to construct infrastructure, for example the Owen Falls Dam at Jinja (Glentworth and Wozei, 1972). The existence of electricity stimulated agricultural processing industries which added value to the primary exports; for example, Uganda started processing tea, cotton seed cake, and refined sugar. Further, capital inflow from the Asian community added to the financing of essential inputs and working capital needed to run the newly created processing capacity (Nsereko, 1988).

The existence of the East African Common market from 1948-74, added to Uganda's export opportunities by allowing a specialization of a larger variety of primary agricultural exports, processed foodstuffs and manufactured goods. Tables 2 and 3 show this greater variety of exports to Kenya and Tanzania during the later 1960s. The overall picture is summarized in Table 4, which shows a diversified export base and the relative contribution of each category of commodity to total export receipts, by destination.

Table 2 Uganda: principle commodities exported to Kenya, 1968-70 (Ug. Shs 000s)

Commodity category	1968	1969	1970
1. Agriculture raw materials			
Fish-fresh (simply prepared)	1,926	2,704	1,743
Cereals (unmilled)	1,061	957	1,153
Peas, beans and lentils	1,030	500	2,027
Sugar unrefined	26,041	15,348	14,494
Tobacco unmanufacturerd	12,801	2,771	11,305
Oil seeds, nut and kanals	2,962	3,390	5,636
2. Manufactured goods, food processing			
Tea	1,150	469	397
Meat and meat preparations	71	55	658
Buscuits	1,374	828	78
Confectionery	2,560	2,312	3,504
Feeding stuff (animal)	1,803	2,053	1,804
Margerine and shortening	13,842	8,550	13,772
Cotton seed oil	13,168	9,583	14,751
Beer	663	304	3,260
3. Other manufactured goods			
Cigarettes	21	-	8
Electricity	9,953	8,472	9,318
Soaps	3,410	3,869	2,101
Fertilizers	3,777	6,313	7,814
Cotton fabric	35,171	42,887	54,495
Bars and rods of iron/steel	7,121	10,832	10,567
Enamelled hollow ware	884	861	1,567
All other commodities	2,209	33,196	41,005
Total	142,998	156,054	201,454

Source: Bank of Uganda, *Annual Report 1970-71*, p. 84.

Table 3 Uganda: principle commodities exported to Tanzania, 1968-70 (Ug.Shs 000s)

Commodity category	1968	1969	1970
1. Agriculture raw materials			
Cereals (unmilled)	189	874	2,231
Bananas, beans and lentils	536	484	2,121
Tobacco unmanufactured	7	-	57
2. Manufactured goods, food processing			
Biscuits	58	31	35
Confectionery	311	305	534
Msrgarine and shortening	911	89	101
Cotton seed oil	3,992	8,481	9,448
3. Other manufactured goods			
Cigarettes	19	-	1
Soaps	104	26	6
Ferrtilizers	154	31	109
Bicycle tyres and tubes	2,107	2,465	2,169
Cotton fabrics	10,060	2,818	1,414
Building materials and asbestos	1,185	1,200	1,989
Bars and rods of iron/steel	5,837	6,870	6,916
Enamelled hollow ware	470	313	359
Footwear	969	256	941
Matches	1,074	147	-
All other commodities	12,447	9,919	11,464
Total	40,579	34,265	39,895

Source: Bank of Uganda, *Annual Report 1970-71*, Consolidated Printers, p. 84.

Table 4 Uganda's diversified export base: the relative contribution of each category of commodity to total export receipts, and by destination, 1970 (%)

Commodity category and destination	Percentage contribution
Primary exports to Europe	
1. Copper, tea tobacco	13
2. Coffee	51
3. Cotton	16
4. Regional exports to Kenya and Tanzania	20
Total	100

Source: Calculated from East African Community, 1972.

To maintain the diversified export base shown in Table 4, or to even widen it, required a number of development policies for example:

1. Peasant agriculture needed new inputs of technology and extension services to reduce dependency on weather and to stave off diminishing returns from declining soil fertility and over-cropping;
2. An increasing variety of new agricultural commodities had to be developed to take advantage of the changing composition of demand on the international market as the post-Korean war boom in the traditional primary commodities receded;
3. Capital inflow and domestic savings needed to be encouraged to finance and expand processing capacity, as well as to maintain the newly built infrastructure, as the Price Assistance Fund became depleted;
4. Commercial policies were needed to expand the regional market, since this market provided opportunities for a large variety of exports, both primary and processed; and
5. Investment was required in appropriate skills by providing education, training and incentives to encourage new entrants into the export sector.

Economic policies that eroded the structure of the export base

From 1969 and throughout the 1970s, a number of policies were adopted which disrupted the economic trends of the 1970s. Since these policies have

been extensively reviewed elsewhere, this sub-section will focus only on those aspects that specifically led to the shrinkage of the export base (see footnote 1).

Expulsion of the Asian community

In 1972, the Government launched an 'economic war' during which it expelled 60,000 mostly Asian non-nationals at short notice without developing an alternative skills base to manage the affected businesses. The effect of this expulsion on the export sector was fundamental and affected processing capacity, confidence and crop finance.

Processing capacity The Asians were processing a wide variety of agricultural raw materials and light manufactures both for local consumption and for export. In the period that followed the expulsion, the processing and manufacturing facilities were either taken over by the government and turned into parastatals, or were arbitrarily allocated to new owners without training and skills. In addition, the allocations changed hands frequently leading to ownership disputes that curtailed investment.

The effect was a wide ranging mismanagement of processing capacity, the consumption of capital, in terms of over utilization of plant and equipment, and the lack of repair, or maintenance of spare parts. By 1980, processing and manufacturing capacity was either dilapidated, obsolete or needed complete replacement.

Although lack of data prevents an empirical illustration of the direct link between the deterioration of processing capacity and the shrinkage of the export base, Tables 5-6 provide some idea of the magnitude of this problem. Table 5 shows that the number of firms processing export declined due to lack of experience and essential inputs. Table 6 shows that actual production of some exportables and capacity utilization of the relevant plant and equipment declined.

Erosion of confidence The expulsion of the Asians without compensation, the subsequent arbitrary allocation of business, coupled with general insecurity, had another collective effect — the loss of confidence by private investors, both local and foreign, in any long-term investment in Uganda. This lack of confidence has made it extremely difficult to attract new investment to rebuild processing and manufacturing capacity. For example, it is not possible to re-

Table 5 Firms processing selected exportables, 1969, 1971, 1983

Exportable	Number of firms		
	1969	1971	1983
Coffee curing	148	162	122
Cotton ginning	52	52	24
Tea	29	32	26
Tanneries and shoes	10	9	6
Tyres and plastics	9	8	3

Note: firms employing ten or more persons only.
Source: IBRD, *Uganda Industrial Sector Memo*, 1986, p. 96.

Table 6 Production and capacity utilization of plants producing selected exportables, 1971, 1981

Exportable	Production in metric tonnes 000s		Capacity utilization (%)
	1971	1981	1981
Sugar	141.0	6.6	2.8
Animal feed	24.6	3.5	19.1
Cigarettes	1,581.0	231.0	12.8
Cotton fabrics	46,178.0	21,893.0	42.8
Bicycle tyres	418.0	14.0	1.4
Small matches	55.0	2.1	4.9

Source: IBRD, *Uganda Industrial Sector memo,* 1986, p. 102.

open the Kilembe mines which were closed in 1978. The country is unable to work out an ownership structure which investors can trust to mobilize the large-scale financing required (Republic of Uganda, 1989, p. 87). This means copper, as shown in Table 1, is continually depressed.

In a survey of 84 processing and manufacturing enterprises in 1984, it was found that:

> Throughout the sector, the shortage of working capital is perceived by the enterprises as the most critical problem facing manufacturing industry in Uganda, whether it is expressed in terms of shortages of spare parts and equipment, of foreign exchange and imported inputs, or of locally available materials (Republic of Uganda, 1986, p. 56).

Table 7 expresses how this problem affected particular industries.

Table 7 Reasons for low capacity utilization, 1986

Product groups	Reasons for low capacity
Textiles	d,e,f
Food	d,e,g
Beverages and tobacco	b,e,d
metal products	b,e,d
Non-metallic mineral products	b,e,d
Chemicals	b,e,d
Paper and stationery	a,e,d
Leather shoes	b,e,c
Reasons:	Occurance
a = Low market demand	= 1
b = Shortage of imported materials	= 5
c = Shortage of local materials	= 1
d = Equipment breakdown	= 5
e = Lack of spare parts	= 8
f = Inadequate facilities	= 1
g = Employment problems	= 1

Source: Survey conducted by the Ministry of Industry and Technology, IBRD, *Uganda Industrial Sector Memo*, 30 September 1983, p. 56.

Although in theory the state could provide the financing from budgetary allocations, and from project aid and technical assistance, this type of financing is in short-supply.[2] In any event, it is qualitatively not a perfect substitute for private capital which comes with the 'know-now' and the commitment to make the enterprises run successfully. Therefore, the restoration of the confidence

necessary to mobilize financing for export development and diversification, is a big problem, which we shall return to later on.

Crop finance The bulk of agriculture exports — coffee, cotton, plus tea and tobacco from outgrowers — were produced by small peasant farmers on plots between one and five hectares. These crops used to be purchased on a cash basis by Asian traders, and processed for export either directly, in the case of tea and tobacco, or through the Marketing Boards, in the case of cotton and coffee.

When the Asians were expelled, no new institution stepped in to provide crop finance. The state, through the co-operative system, bought the crops, but paid farmers late, up to one year in some cases. Consequently, the farmers reallocated their resources away from annual crops, like cotton, to food crops which earned cash on delivery to the market. For these crops, like coffee, there was no incentive to improve production technology for higher yields, thus reducing export volumes.

The disintegration of the East African Community

Political disputes as to whether Amin's military ascendancy was legitimate, and economic disputes over the distribution of benefits between the member states, led to the collapse of the East African Community in 1974. Uganda's products were then faced with commercial restrictions in the Kenyan and Tanzanian markets. This affected manufactured goods, food processing and other manufactured goods (see sections 2 and 3 in Tables 2 and 3).

The East African Railways and Harbours were jointly run by the East African Community. After 1974, Uganda was required to pre-pay cash in foreign exchange using either the harbours or the Kenyan Railway. This meant the flow of goods was disrupted whenever the country faced foreign exchange shortages.

The East African Airways, which was run as a joint service, also disintegrated in 1974. Thereafter, each country organized its own national airline. Uganda Airlines was formed as a parastatal, whose priority was to serve government interests rather than exporters.

The East African Statistical Department, based in Nairobi, was also dissolved in 1974. Subsequently, accurate Ugandan trade statistics became extremely difficult to collect. It is not clear whether the blanks in Table 1 are due to a genuine decline in trade, or partly due to poor statistics collection and/or smuggling.

Macroeconomic policies

The 1970s were a period of insecurity. The state machinery to collect taxes broke down while expenditure on the civil war, especially in the second half of the 1970s, rose. This led to government borrowing from the Central Bank to finance recurrent expenditure, which was inflationary.

To fight this inflation the government instituted price controls. Production of many essential commodities became unprofitable at fixed prices, and parallel markets in local commodities and imports boomed. The exchange rate was fixed, at Ug.Shs7 per US$ for a long time. In the face of rapid inflation, exporters began smuggling coffee across the borders as the domestic currency became overvalued. Cotton and other minor crops which were in excess supply in Kenya and did not benefit from smuggling, went out of production. The exchange rate policy, therefore, contributed to the shrinkage of cotton, tea and tobacco (see Table 1). Also, minor food exports (row (1) in Tables 2 and 3) declined as domestic prices for these crops, which were adjusting freely to demand and supply conditions under inflation, became more attractive than border prices at the fixed exchange rate.

Coffee continued in production because it was a tree crop, but many shambas were poorly weeded and yields declined. The higher values in US$ (Table 1 row (1)) are due to the good international prices of coffee at the time. But low yields, smuggling and hoarding of stocks at various levels in the marketing chain, reduced the exportable quantities through the official channels (Ssemogerere, 1990). Apart from the disappearance of old exports, no new exports could emerge. A high rate of inflation, plus an over-valued exchange rate, did not provide incentives to develop new exports.

Conclusions on export concentration in the 1970s

To revive the export sector, the disruptive causes of the 1970s have to be addressed. The macroeconomic framework has to be improved, which means controlling inflation, setting a competitive and effect exchange rate, and paying remunerative prices to export producers promptly. Much deeper-seated development problems also have to be addressed, especially restoring confidence for private investment to finance processing and manufacturing capacity. The infrastructure has to be reconstituted for roads, railways and harbours. A statistical base needs to be set up to guide both policy-makers and exporters.

Negotiations to reduce restrictions on intra-regional trade are also required, since the regional market can widen export opportunities. New exports with

good market prospects have to be found to replace the traditional primary commodities, especially coffee, whose high international prices from the Korean war boom cannot be recaptured. Given Uganda's comparative advantage in agricultural exports, the problem of crop-finance has to be addressed so that crops can be bought promptly from the farmer and moved to the export markets. The productivity of the peasant farmer also needs improvement.

Problems beyond the 1970s

Since the 1970s, new problems have arisen. The export environment of the 1990s is now far more competitive and complex. For example, coffee, the leading export, is facing an international market characterized by over-production and stocks from exporters with high-yielding new trees. African neighbours whose processing and manufacturing capacity and infrastructure were not disrupted, such as Kenya and Zimbabwe, are more competitive *vis-à-vis* Uganda, than they were in the 1960s.

Section III reviews the literature on export development and diversification with the purpose of identifying which factors Uganda should focus upon in the 1990s if it is to correct the disruptive forces and the neglected opportunities of the past, as well as face the newly emerging competition.

III A selective review of the literature on export development and diversification

Introduction

The purpose of reviewing the existing literature on export development and diversification is to identify which factors are likely to influence them in less developed countries (LDCs) in the 1990s. The review is divided into three sections: the theoretical basis for export development and diversification in LDCs today; quantitative economic models; and the institutional framework. The conclusion to this section draws lessons for Uganda.

The theoretical basis for export development and diversification

The old arguments

Originally, the theoretical interest was on what role export diversification could play in reducing the variability of export earnings from the cyclical fluctuations in the international prices of primary commodities (MacBean, 1966; MacBean *et al.*, 1980).

This literature produced inconclusive results, largely because of the different methodologies and data coverage used to measure instability and diversification; in any event, the measured instability was small.[4]

More importantly, cyclical variability (rather than secular trend), does not by itself constitute a sufficient case for diversification since there are schemes to deal with it, for example, price stabilization schemes at home to protect the income of export producers and commodity schemes abroad to reduce fluctuations in international prices. Purely cyclical fluctuations should balance themselves out over time.

The new arguments

The current arguments for export diversification and development are partly a rebuttal from the development literature against the Ricardian static concept of comparative advantage which, when carried to its logical conclusion, advocates complete specialization to maximize the gains from trade (Chenery, 1961).

Since the 1970s, there have been both erratic swings and a secular decline in the international prices of primary commodities (especially agricultural raw materials and basic food stuffs), which commodity schemes, such as the ICO quota, have been unable to eliminate. The schemes shielded the primary export producers of these commodities from adjusting to demand and supply changes, thus worsening the downward secular trend by encouraging over-production and the hoarding of stocks (Salvatore, 1983). Countries that specialized in a narrow range of primary commodities, are currently faced with declining export earnings and a loss in their share of the international export markets (IMF, 1986).

The trend since 1970 has produced a theoretical reaction which argues that in a world of changing demand and supply conditions, international trade should be based on dynamic comparative advantage. The dynamic elements focused upon are demand and supply changes; risk evasion given imperfect foresight; environmental considerations and changes in commercial policies.

Changes in demand Engle's law predicts that necessities are income inelastic. As income in the consuming country increases, the proportion spent on necessities declines. An exporter facing rising income in the importing country has to diversity by increasing the proportion of commodities which are income-elastic and reducing the proportion of necessities in order to realize rising export earnings.

Even if incomes in the importing countries are constant, tastes change, and indifference maps shift over time, with changes in the psychological references of different generations of customers. This calls for diversification to generate new exports to cater for the changing desires and needs. Both incomes and tastes have been changing over time in the European and USA markets, which are the main customers of African exports, including Uganda (IMF, 1987b).

Changes in supply Dynamic comparative advantage calls for diversification to develop new exports as the country adjusts its productive structure to changes in domestic resource endowments such as new skills from education,

or better land utilization that staves off diminishing returns, or changes in production technology and input mix, or changes in the availability of imported inputs in response to the foreign exchange constraint.

Even if the resource base and inputs remained unchanged, a country's international competitiveness changes in response to the domestic macroeconomic environment, such as the rate of inflation and the competitiveness of other suppliers of identical commodities. Such changes will be reflected in movements in the real effective exchange rate which signals a reallocation of resources into a new diversity of exports.

Complete specialization, especially in primary commodities with long gestation periods such as tree crops, creates an inflexible export structure in the short-run. Even if the price elasticities of supply of these commodities turn out to be large in the long-run, a country cannot adjust to short-run booms or declines in international prices. More importantly, it is also difficult to predict whether such price fluctuations are short-run and cyclical or whether they represent a secular trend that requires a re-allocation of resources.

It is, therefore, desirable to diversify into commodities of different price elasticities of supply as a deliberate policy to keep the productive structure flexible, otherwise:

> Instability of exports earnings may not be reduced if diversification takes the form of elaborating traditional primary products exports or if the new products tend to exhibit the same phase of price fluctuations as traditional exports (IMF, 1987b, p. 43).

Second, when planning to develop new exports, a country must have a broad awareness of what potential competitors are doing, to avoid moving into easily flooded markets:

> The successful adoption of policies to promote diversification, *particularly in primary products,* requires awareness of what others are doing — *if* all countries are shifting resources into the same commodities, a global over-supply can result [italics added](IMF, 1987b, p. 18).

Industrial capability Recent empirical literature shows a close and positive relationship between export diversity and industrial capability. The countries with rising export earnings are those with a higher proportion of manufactures in total exports which come from a thriving manufacturing sector. Industrial capability offers a country opportunities for product differentiation on the

supply side, 'new' products can be offered in the short-run even by just varying the package and label. On the demand side, within the 'product group', the differentiated commodities are close substitutes and therefore highly price elastic. This may explain why:

> The volume of selected manufactured exports may be raised without a compensating fall in prices because they are price elastic (IMF, 1987b, p. 16).

A second consideration is that the industrial production environment is easier to control, compared with the unpredictable weather changes for agricultural commodities. Third, industrialization brings with it, or encourages the development of, a generalized infrastructure within which it is easier to reduce unit costs by supplying reliable power supply, better communication and information, etc. Lower costs thus increase the competitiveness of the home country in the international market.

A word of caution is in order at this point. Measures to create industrial capacity raise deep-seated questions of development policy. Such measures must avoid creating export sectors with limited opportunities to grow (see Havrylyshyn, 1990, pp. 47-56 and 109-122). There is no rigid suggestion to produce any discrete commodities or follow a discrete pre-determined development sequence. Countries building new industrial capabilities and exports in the recent past have been able to diversity into a wide range of agricultural processing activities to add value and improve quality, such as with light manufactures and services (see Stern, 1989).

Environmental considerations Change in the environment, and the response to it, are important factors affecting dynamic comparative advantage and world trade. The initial reaction of the more developed countries (MDCs) to environmental degradation has been to economize on the use of raw materials so as to reduce the cost of waste disposal. This tended to hurt exporters of primary commodities by reducing the demand for their products, leading to a secular decline in their international prices.

More recently, however, tastes in many MDCs are changing towards 'pollution-free' agricultural products, grown with a minimum of chemical inputs. The LDCs who have favourable weather and good soil are responding by exporting organically grown food, especially during the off-season period when MDCs cannot grow comparable products more cheaply.

Obstacles in the LDCs that prevent the appropriate supply response are related to deep-seated development problems such as the lack of rapid

transport to deliver these commodities fresh to the markets, or lack of processing capacity to preserve them in a form that lengthens their shelf-life.

The association between industrial and export capacity becomes relevant in this case: as industrial capacity grows, the evidence over the last 15 years shows that processing capacity itself, plus the related infrastructure, increase the country's flexibility to process and supply agricultural commodities with high income and price elasticities of demand (see IMF, 1987b and Havrylyshyn, 1990).

The debt problem The literature on the economics of development shows that there has been a large increase in debt owned by some very poor countries, especially in Africa, in the last 15 years.

The absolute size of the debt, and its rate of growth, do not by themselves constitute the problem, since a country borrowing today to increase its productive capacity and repaying at a future date, is in long-run equilibrium. What concerns creditors instead is the ability of the LDCs to service the debt, i.e., the debt-service ratio or debt-service payments as a proportion of export earnings, thus reflecting lack of expansion of export capacity.

The inability to service debt hampers the ability to borrow: in very poor countries this leads to cutting social services such as transport, health, etc., which depend on imported inputs supported by loans. Productive capacity also remains under-utilized and unemployment grows because of lack of imported inputs. The economic and social consequences of lack of imports, therefore, are grave. Among the various schemes suggested by the creditor countries is to tie the debt to the ability to service it, that is:

> In the decision to lend the conditions attached should be based on an assessment of the debt service capacity and financial management of the debtors as opposed to a willingness to accept conditionality (Stern, 1989, p. 641).

There is a real danger, therefore, that if a country specializing in primary exports cannot generate revenue to service its debt, it will be cut off from borrowing. In this case diversification of foreign exchange earnings is crucial in a country like Uganda which is borrowing heavily to finance imports (see Section I).

Trade barriers As the round of negotiations to reduce tariffs have proceeded under UNCTAD and under GATT, protection in the MDCs has substantially changed from tariffs to a proliferation of non-tariff regulations, sophisticated restraints, bargaining, etc. The political lobbies to protect agriculture in both the EEC and the USA have remained notably powerful and have dampened United Nations initiatives to reduce trade barriers. The enlargement of the EEC and the formation of the common market between Canada and the USA to provide countervailing power, are also feared by many LDCs as moves likely to increase trade barriers.[5]

The immediate threat from trade barriers has affected 'the very developing countries that successfully diversified their export base in the 1970s. The newly industrialized developing countries are those confronting the greatest pressure to limit the inroads they are making into the markets of the industrial countries' (Salvatore, 1983, p. 18).

Given their more flexible export structure, however, the responses of these newly industrialized countries to the threat of exclusion from older industrial markets have been interesting and varied. They have entered into joint ventures with multinationals to help them market their exports into the countries where they are likely to be excluded (UNCTC, 1990). A second strategy has been more sophisticated product differentiation into new qualities of the product which are not yet subjected to trade barriers. A third strategy has been to seek entry into new markets with less stringent barriers.

In all three cases, non-tariff barriers have not reduced the exports and foreign exchange earnings of the newly industrialized countries; instead it is the productive structures of the MDCs which are becoming distorted. Diversification, therefore, is an important policy to adjust to a hostile international environment.

The countries that have been granted preferential entry into protected markets, and are therefore not facing the threat of exclusion, have had no drive to diversity. Their earnings from primary exports have declined from the secular trend in international prices.

The formation of regional markets by the LDCs has not been helpful in the development of diversification policy because many LDCs have pursued protectionist policies. Potentially, however, a regional market among the LDCs could provide an additional market for the home country which could form a learning ground to increase both production and marketing efficiency before entry into the international market. Furthermore, a regional market could be used as a collective tool by the member LDCs to bargain for rounds of trade liberalization with other regional blocks among the MDCs.

Risk evasion The inability to distinguish between a cyclical and secular movement in international prices introduces an important element of uncertainty in trade. When the supply response takes time, as in the case of primary exports from tree crops such as coffee, cocoa, rubber, etc, there is a danger of over investing to increase supply in response to a cyclical rather than a secular increase in international prices. This leads to over-production which can be worsened by commodity schemes.

Some writers have suggested that during a boom, countries should accumulate reserves, and during a downturn, they should borrow. These policies only work if the fluctuations are cyclical. Even then, there is an opportunity cost to holding reserves, and a debt-service burden on borrowing. Alternatively, countries could pursue expansionist policies during the export boom and contract during a downturn. This intermittent pattern of expenditure reduces confidence in the economic system, however, and limits specialization: production agents resort to subsistence to avoid the risk from contractory expenditure. It is preferable to spread the risk of fluctuations in international prices by diversifying the sources of foreign exchange earnings directly, by a deliberate drive to export commodities that are not subject to identical swings in international prices. This is the policy advocated by this paper.

The case for export diversification: dynamic comparative advantage: a summary

The theoretical case for export diversification based on dynamic comparative advantage is overwhelming and comprehensive. A country's comparative advantage changes over time in response to autonomous factors: tastes, technology, industrial capacity, competitiveness of other suppliers etc. In addition, policy induced changes also affect comparative advantage: for example, environmental considerations, debt management, trade barriers and risk evasion. A flexible export structure is necessary to generate the diversity of commodities required to enable a country to compete and ensure a rising steam of foreign exchange earnings over time.

Quantitative economic models for export development and diversification

Quantitative models of comparative advantage can employ microeconomic models at a desegregated level which identify the supply or demand prospects for specific commodities for a country to develop and diversity into in order to increase its foreign exchange earnings.

The demand models

The demand models take the general form:

$$(1) \qquad X_t^d = \int [Y' w_t \ (Px_t^d \ / \ Pw_t) \ ]$$

where:

X_t^d = the quantity of exports of commodity X from LDC over time;

Px_t^d = the export price, c.i.f, of the developing country in foreign exchange, for commodity X;

Pw_t = the average export price of X in the world market where the LDC is exporting;

Yw_t = the real income of the importing country.

The growth rate of X_t^d over times, which determines the increase in foreign exchange earnings, can be derived as follows:

$$(2) \quad \frac{dX_t^d}{dt} = \left[\left(\frac{\delta X_t^d}{\delta Yw_t}\right) \cdot d\left(\frac{Yw_t}{dt}\right)\right] + \left[\frac{\delta X_t^d}{\delta (Px_t^d \ / \ Pw_t)} \cdot d \ \frac{(Px_t^d \ / \ Pw_t)}{dt}\right]$$

The partial derivative terms can be re-written as:

$$(3) \qquad \frac{\delta X_t^d}{\delta Yw_t} = \varepsilon_y \frac{X_t^d}{Yw_t}$$

$$(4) \qquad \frac{\alpha x_t^d}{\alpha (Px_t^d / Pw_t)} = \varepsilon_p \frac{X_t^d}{(Px_t^d / Pw_t)}$$

where ε_y and ε_p are income and price elasticities of demand for X_t^d in the importing country.

Substituting the right hand side of Equations (3) and (4) into the right hand expressions of Equation (2) and dividing both sides of Equation (2) by X_t^d gives the growth rate of the export commodity as:

$$(5) \qquad \left(\frac{dX_t^d}{dt} / X_t^d\right) = \varepsilon_y \left(\frac{dYw_t}{dt} / Yw_t\right) + \varepsilon_p \left[\frac{d\ (Px_t^d / Pw_t)}{dt} / \left(\frac{Px_t^d}{Pw_t}\right)\right]$$

Equation (5) says that the growth rate of the export commodity X_t^d to the importing country, depends on the income elasticity of demand ε_y times the annual rate of change in income (the first bracketed term to the right), plus the price elasticity of demand ε_p times the rate of change of the price of X_t^d relative to the average world price over time. Since ε_p is negative, and the percentage change in the relative price is also negative, the second term is positive. If Equation (5) were empirically estimated, it would take the form:[6]

$$(6) \qquad \ln X_t^d = b_0 + \varepsilon_y a_1' \ln Yw_t + \varepsilon_p a_2' \ln (Px_t^d / Ps_t)$$

$$\text{let } b_1 = \varepsilon_y a_1' \quad \text{and } b_2 = \varepsilon_p a_2'$$

The co-efficients b_0, b_1 and b_2 would have the following meaning:

b_0 = would represent the historical factors affecting exports eg, the initial costs of breaking into the market. The harder to break into the market for example, the lower would be the growth rate initially, and b_0 would be small.

b_1 = the growth elasticity of exports of X_t^d with respect to income in the importing country

i.e., $\varepsilon_y \cdot \left(\frac{dYwt}{dt} / Ywt \right)$ or $\varepsilon_y \cdot r_y$

$b_1 = (\varepsilon_y) \cdot (r_y)$. This is a product term rather than a simple elasticity of demand.

The meaning of b_1 is as follows: if X_t^d is income elastic in the importing country, as income of the importer increases, the demand for X_t^d will grow, and ε_y would be positive. But r_y = the growth rate of income; this determines the rate at which the demand curve of X_t^d in the importing country will shift out to the right. Similarly:

b_2 = the growth elasticity of exports of X_t^d with respect to relative prices $P._{xt}^{d} / Pw_t$.

$b_2 = (\varepsilon_p) \cdot (r_p)$. This is again a product term rather than a simple price elasticity of demand.

The meaning of b_2 is as follows: if X_t^d is price elastic in the importing country, as the exporter becomes more competitive, relative to the average of other exporters, P_{st}^d declines relative to Pw_t, and X_t^d replaces imports from the other countries.

The growth rate r_p determines the speed at which Px_t^d declines relative to Pw_t. It bears a negative sign. The co-efficient b_2 is positive because it is a product of two negative terms ε_p and r_p.[7]

The desegregation of the demand model in Equation (5) before estimation highlights its theoretical usefulness. For a commodity to have good market prospects abroad the necessary condition is that the demand for such a commodity is both income and price-elastic.

For an exporting country to realize a rapidly rising stream of foreign exchange earnings from this commodity, however, it is not sufficient to simply pick commodities with high income and price elasticities of demand for export development and diversification. These only refer to parts of the growth elasticities ε_y and ε_p. In addition, the income of the importing country must be growing (a positive r_y) and the exporting country itself must maintain competitiveness in the international market (a positive absolute value of r_p).

The supply models

Unlike the demand models, there if no uniform structure for the supply models. The formulation depends on the production function from which a particular supply model is derived. Most supply models are reduced from the constant elasticity of substitution production function of the form:

$$Q = A\left[\delta K^{-\rho} + (1-\delta)\, L^{-\rho}\right]^{-1/\rho} \tag{7}$$

where

Q = the quantity of output for export;
A = the efficiency parameter, referring to technological change that augments the productivity of the factors of production;
K = capital;
L = labour;
δ = the distribution parameter determining the relative contribution of each factor of production to total output;
ρ = the substitution parameter governing factor intensity.

The simplification of Equation (7) to the reduced form is undertaken to estimate the supply response to a number of independent variables expected to influence the tradable commodity. For example, a commonly estimated supply function, in implicit form:

$$c_1 \ln\left[(Px_t^s \,.\, ER) \,/\, P_t\right] + c_2 \ln\left[(Px_{t-1}^s \,.\, ER) \,/\, P_{t-1}\right] \tag{8}$$

where

X_t^s = the quantity of exports produced, of the individual commodity in the LDC;
Px = the export price of X in foreign exchange
P = the overall domestic price level in local currency i.e. $P = ER.Pw$, where Pw is the world price in foreign currency.
ER = the nominal exchange rate of the LDC, in local currency per unit of the foreign currency.
Z = the proxy for capacity utilization in the case of industrial output;
T = the proxy for weather in the case of agricultural output.

The dependent variable can also be divided by one of the factors of production whose productivity is the subject of study, X_t^s/Z_t to denote output per unit of

land, or land productivity, for example, where Z_t indicates hectares of arable land.

The exchange rate (ER) is an important independent variable since it relates the domestic price to the international price and influences the relative profitability of exporting compared to supply the domestic market.

The terms in Equation (8) are usually lagged to indicate that total supply adjustment may take longer than one period, and long-run supply elasticities are larger than the short-run ones.[8]

Measures or indices of competitiveness

The concern to an exporter to produce a commodity for the world market is that the realisable world price in Uganda shillings covers the costs of exports and an adequate profit margin. The exporter's attraction to transact in the export commodity is a function of the size of this margin. The bigger the margin, the more attractive is a commodity. The economic basis of analysing export competitiveness of a commodity on the world market is therefore based on:

- Value added in foreign exchange (IVA);
- The Domestic Resources Cost (DRC) incurred to earn the value added;
- The foreign costs incurred to realize the export benefit.

The DRC is the domestic resource cost for a unit of net foreign exchange earned from exports:

$$DRC = \sum_{i=1}^{n} \frac{LC_{ij}}{IVA_j} \tag{9}$$

where

LC_j = local costs in accounting prices of the inputs used in the production of the commodity *j*.

IVA_j = international value added in foreign exchange, calculated net of the foreign costs of producing *j*th commodity.

The index of competitiveness or the DRC ratio (C_j) is the ratio between the domestic resource costs and the official exchange rate (E). For a commodity to be competitive, the DRC should be less than the exchange rate, ie, C_j should be less than one:

$$C_j = \frac{DRC_j}{E} \quad (10)$$

Models of the competitiveness have two advantages:

1. By ranking exports, they indicate to the policy maker which commodities should be developed first;
2. The production data required on imported local inputs, and on the opportunity cost of labour, can be collected in a survey at a point in time, unlike the time-series data needed to estimate the demand and supply models. The coefficients can be updated periodically provided that a data collecting system is set up and maintained.

However, whether the commodities ranked can be successfully exported depends on other additional factors in the importing country such as trade barriers, income and price-elasticities of demand. Also, the home country must successfully compete with other exporters to the foreign market.

Programming export development

Despite the apparent simplicity of the DRC indices, the calculations have two serious defects:

1. They do not take into account the scarcity of non-traded inputs. It is assumed that the supply on non-traded inputs is perfectly elastic ie, extra quantities of these inputs can be produced if more are needed. In a situation where a country faces several supply bottlenecks of non-traded inputs, eg, those of skilled labour, this assumption is not warranted (Stern, 1989, pp. 649-50).

2. If devaluations are based on the index of competitiveness, one may end up protecting high costs producers with no prospects of improving productive efficiency. It is advisable to calculate E independently, as the equilibrium exchange rate for the economy and use C_j to determine which products are competitive at that exchange rate. In practice governments tend to operate multiple exchange rates for purposes of encouraging exports or to base adjustments in the official exchange rate on supporting principal exports.

The programming approach yields shadow prices equal to the social opportunity cost of producing both tradeables and non-tradeables at the equilibrium exchange rate for the economy. This is an important advantage. Second, in formulating the programme, the scarce resources required to produce exports can be carefully entered as binding constraints to the feasibility of the programme.

The programme for export development needs not be too large. A few key sectors can be concentrated upon to keep computation and data demands to the minimum: for these reasons, we have mentioned programming under micro models — i.e. it can be used to examine key sectors and scarce resources (rather than the big version that examines the whole economy).[9]

Data problems and quantitative models in Uganda

All four proposed models require data for computation, which is not readily available. Because of this the models have no immediate practical value.

The demand model requires desegregated time-series on the quantity demanded of X_t^d, the export price Px_t^d, the average world price Pw_t, and the real income of the importing country, Yw_t. While average world prices, and real income each individual importing countries are available, international prices of commodities at a desegregated level are difficult to get.

In Uganda, there is no output data on individual commodities, even on coffee the leading export. The supply model cannot be estimated from Equation (8) either.

The Agricultural Secretariat of the Bank of Uganda set up a method to compute the DRC for traditional cash crops and is gradually moving into non-traditional food crops. This is the best source of such a data base. Policy makers should increase the resources to support it so that the DRC ratios of more exports can be computed.

There is no programming model for the economy: the Ministry of Planning is just starting the preparations for such a model. But before the overall economy can be programmed, work on key sectors and critical bottlenecks should start.

The purpose of reviewing the literature on quantitative models, therefore, is to isolate the explanatory variables which Uganda must pay attention to in export development and diversification. These are equilibrium exchange rates, producer prices, income and price elasticities of demand, growth rates in real income for her customers abroad, and the competitiveness of other suppliers to these customers. Awareness of these variables and the relative urgency for

their computation by the methods indicated can guide policy. We intend to refer to these variables in the later policy analysis.

The institutional framework

Voluminous literature exists on the institutional framework for export development and diversification. However, most of this literature is tailored to individual commodities rather than general principles to promote export development and diversification. In this section we shall select the few general principles for discussion and will cover the specific recommendations as we analyse the constraints facing the individual commodities subsequently.

The most useful approach is to identify the actors and discuss the desirable institutional framework within which they should promote export development and diversification. The actors are: government, export producers, private investors and donors.

Government

The heterogeneity of non-traditional exports does not render itself easily to government control. Instead:

> Government must limit its role to areas where the private sector is lacking, thereby reinforcing private initiatives rather than undermining them (Schapiro, 1986).

This limited but reinforcing role requires government to first maintain security so that the general environment is predictable. Security here is interpreted not to mean the continuation of one regime or one person in power for a long time (until violently removed) but consistency and clarity of economic policy regardless of the regime in power, so that investors can reasonably predict the likely effect of public policies on their projects.[10]

Second, the government must formulate and implement a consistent macroeconomic framework within which the price system can allocate resources efficiently. This includes, in particular, maintaining a real effective exchange rate that reflects a country's comparative advantage, fiscal and monetary policies that stabilize the general price level, and a flexible production system which allows producers to quickly adjust to changing market conditions.

In countries which have successfully diversified their exports in the last 15 years, what mattered at the macro-level was:

> .... a stable non-inflationary environment, where there were few restrictions on private initiative, and where public sector spending complemented rather than competed with private capital.[11]

Repeated devaluations to adjust the nominal exchange rate to inflation, which are not accompanied by policies to correct the causes of inflation, portray an unstable macroeconomic environment and reduce investor confidence.

> Adjustment in nominal exchange rates to accommodate prevailing inflation ... tend to reduce investor confident and encourage investment in financial assets or real assets that appreciate with the increase in prices rather than in productive activities (IMF, 1987b).

Here stabilization must also integrate markets: continuation of parallel markets in foreign exchange or smuggling may be a sign of lack of confidence and a flight from repeated devaluations. Real producer prices can only be maintained in a stable macroeconomic framework. There is a danger that using frequent devaluations to maintain real producer prices can result in mark-ups for even inefficient producers (a problem we shall consider in Section VI).

Third, the government must develop the infrastructure that promotes exports. This includes research into new commodities and quality improvement of existing commodities; gathering market intelligence on prices, quality, marketing channels, factors that determine entry into new markets, and competitiveness of the home country relative to other suppliers in these markets; improving general communication and transport to enable exporters to meet delivery schedules, and to guarantee continuous supply; and providing other public utilities eg. electricity.

The fact that Kenyan exporters can deliver fresh cut flowers from the field to European markets in 48 hours indicates what governments can 'do right' to promote exports. The government played its re-enforcing role by maintaining infrastructure so that exporters could negotiate and schedule transport routines for perishables efficiently. Cut flowers account for 50% of foreign exchange earnings within the group of Horticultural exports from Kenya (Schapiro, 1986).

Fourth, the government must formulate and administer incentives to export producers such as an investment code to attract both local and foreign investment; appropriate credit and interest rate policies; producer prices that cover production costs plus a reasonable profit margin that allows for

reinvestment; extension services and training to upgrade the quality of specific commodities, and to increase productivity.

The literature on incentives to exporters is cautious, however: it notes that excessively generous incentives can yield negative value added to the local economies eg. some badly negotiated Export processing Zones where exports can turn out to the import-intensive with no linkages to the local economy except for hiring unskilled labour (Warr, 1989, and see Fizgerald and Manson, 1989).

Fifth, the government must also negotiate to eliminate trade barriers into both external and regional markets, and to open up transport and communication channels into these markets. The elimination of regional trade restrictions is particularly useful in four respects:

- First, regional markets provide a training ground to local firms to market more efficiently before they attempt to enter into the international markets: this would entail learning to package, label, clear the product, etc, and positioning it into the marketing niches.
- Second, the elimination of regional trade restrictions forces local firms to operate at lower unit costs and fully utilize the plant to supply a large markets. The firms would also have to abandon monopolistic practice in order to stay competitive.
- Third, cultivating a regional market cushions a local firm's export earnings: when international prices for its product fluctuate, the surpluses/shortages can be ironed out by reducing/increasing regional supplies.
- Fourth, the home country may be able to secure more concessions in the international market if it can team up with its neighbours to negotiate with the MDC's individually, or in their trading blocks, eg, the EEC versus the ACP countries.[12] Policies to increase the efficiency of local firms are not easy to implement, however. The firms that cannot complete and are threatened to close down decampaign the regional market as a source of losses to the local economy. The solution for the home country is not to protect high cost producers, however. Instead, the home country must face the challenge from regional liberalization with development policies that reappraise its comparative advantage and assist new competitive firms to enter into production to supply the regional market while the non-competitive firms close down and exit. The overall increase in efficiency should yield higher output and employment.
- Many LDCs have fiscal deficit and meagre sources of revenue: they are ill-equipped to invest into export development and diversification. The literature notes that apart from purely infrastructural facilities, the governments does not need to contribute much capital investment. The

general supportive regulatory framework is sufficient to attract private capital, both local and foreign (see IMF, 1987b; Havrylyshyn, 1990; UNCTC, 1990; Stern 1989; Schapiro, 1986; Weiss, 1990).

The export producers

Producers must learn from the stiff competition characteristic of both regional and international markets, and must develop:

1. Production technologies with high yields, low costs, superior quality, and flexibility to adjust to changing market conditions;
2. Product qualities that are tailored to specific customer requirements. This demands intimate knowledge of customers and becomes more stringent as one exports differentiated luxuries rather than necessities which are homogeneous;
3. Delivery systems that are reliable and regular, to earn customer confidence and maintain markets;
4. Properly packed, labelled and certified shipments to avoid damages;
5. Overall, export producers must take education, training, extension courses, and up to date information, seriously in order to stay in business. Apart from government assistance at critical times, the export producers themselves must form their own associations to police and educate themselves as an on going activity.[13]

Private foreign investment

Even with a moderate amount of capital transfer, private foreign investment can increase export development and diversification by:

1. Bringing essential inputs not available locally, on a regular basis, both physical inputs and technical assistance;
2. Helping local partners to break into international markets by providing marketing intelligence that would be difficult to acquire by local exporters alone.

Despite its desirable roles, the prospects for direct foreign investment into Africa in the 1990s has been bleak. Such investment critically evaluates the numerous restrictions which African governments are only beginning to dismantle. As the governments implement the structural adjustment

programmes, which are initially contractory as they force inefficient business to close down, they add to the scepticism of outside investors.

The investors compare unfavourably the numerous infrastructural constraints in Africa, which would take time to overcome even if the economies are liberalized, for example electricity, telecommunications, etc, but which are absent in other countries with ready made infrastructure. Infrastructure increases the rate of return on investment and shortens the gestation period, a factor which weights against Africa. The investors prefer to team up in joint ventures with local entrepreneurs who have demonstrated success; these are few in Africa: by the time they appear in large numbers foreign investment will not be so critical any more.[14]

The bleak picture does not apply to all cases equally, however. A country with a well-thought out export development policy can actively shop around for private foreign investment to address specific bottlenecks. This requires more domestic homework but yields better results than haphazard incentives.[15]

The donors

Foreign aid has proved a mixed-blessing in export development and diversification. It can be used to buy surplus commodities off the local market for shipment to needy populations, and thus sustain prices of exportables. Often, however, it dumps other items on the local market that depress the prices of tradable.

Foreign aid can also provide essential inputs not available locally. Even here, however, the tendency is to push obsolete equipment and technology to the LDCs which prevents them from becoming competitive in the international market.[16]

Lessons for Uganda from the literature

Uganda cannot enjoy rising foreign exchange earnings in the 1990s unless it diversifies the export base from primary commodities with long gestation periods and less flexible supply response, eg, coffee.

The new trade pattern should be developed on the basis of dynamic comparative advantage to ensure flexibility to adjust to changing economic conditions both in Uganda, abroad in the MDCs, and within the region *vis-à-vis* direct competitors. The relevant variables from demand, supply and institutional factors have already been identified.

Given the current resource constraints, the inland location without access to the sea, and the need to minimize costs in order to compete, Uganda should diversify into exports of high quality, low weight, requiring a minimum of initial capital, using a relatively labour intensive technology, and having a short gestation period. The literature does not suggest any specific list of commodities to diversify into. We shall examine a feasible list in Section V.

The micro economic quantitative models are not of immediate practical value to assist policy makers to identify feasible exports. They do, however, point out variables which should not be neglected. As a matter of urgency Uganda should improve its database especially in the areas we are going to point out in Section IV. Better data would enable her to use the quantitative micro-models to identify feasible exports and evaluate policies.

Rebuilding processing and industrial capacity will be needed to increase the flexibility in the exports sector. A supportive macroeconomic framework appears more necessary than state capital to invest into the export sector. Consistent exchange rate policy backed by fiscal and monetary policies are the essential ingredients of the supportive framework. Building infrastructure, unifying markets, negotiations to improve regional trade, are also important within this framework.

External aid will generally add lower value to the local economy the more it is tied. Director foreign investment is preferable but it will be difficult to obtain. Whatever can be mobilized will be used most productively if it is directed to specific bottlenecks in an export-development programme carefully thought out by Ugandans themselves.

Export producers will need training and information to face up to stiff international and regional competition. Such training should be jointly undertaken by government and the private sector.

IV Data and methodology

There is no uniform methodology used to collect the data for this study due to lack of reliable sources on non-traditional exports. Most data systems, such as agricultural output statistics, inter-territorial trade, etc, broke down in the 1970s and have not been properly replaced. Existing trade statistics contain numerous gaps and it is generally unclear whether the gaps reflect a disappearance of a commodity from the export list or under-reporting because of poor statistical collection.

Cumbersome procedures to obtain export licenses, plus the over-valuation of the exchange rate, lead to smuggling. Because of this, official trade statistics misrepresent the amount of trade transacted.

Some non-traditional exports we identifies are new and just about to enter the export statistics; we could only collect data on these by interviewing prospective exporters. This section describes a variety of methodologies for each type of data collected to analyse the issues in this paper.

Identification of actual and potential exports for development and diversification

Bank of Uganda sources

Statistics on non-traditional exports were extracted from the *Quarterly Economic Reports* of the Research Department of the Bank of Uganda. The Bank is supposed to track export proceeds on the basis of exports licenses verified by the exports section of the exchange control department. Unfortunately, few exporters brought export licenses to the Bank for verification due to the overvalued exchange rate and cumbersome export procedures that prevailed before July 1990. This makes the data incomplete.

The Retention Account Scheme, launched in August 1989, permits exporters to retain 100% of their export-oriented business ventures and/or for importing goods in demand by the Ugandan public. Exporters were supposed to open foreign exchange retention accounts with their commercial banks. However,

by April 1990 only 29 export retention accounts had been opened. This scheme, therefore, has also failed so far to improve data collection by the Bank of Uganda.

Following trade liberalization policies announced in July 1990, including the licensing of forex bureaux (to be discussed later), the role of the Bank of Uganda in the export business has been marginalised. Exporters are no longer required to have their licenses verified by the Bank or even have expenditure of foreign exchange earnings controlled. The role of the Bank is now reduced to tracking down foreign exchange receipts from non-traditional exports,

The Export Promotion Council

The Council keeps a working Register of Exporters showing actual exports they are taking or intend to take. We extracted a long list of items from this Register. However, exporters only register when they need specific services from the Council. Also, some items on the Register represent declared wishes but are not actually exported. Other exporters, though still on the register, are no longer in business. There is a need to set up and continuously update the list of active exporters, the potential constituency of the Council. This could provide the beat sample frame from which to draw samples of exporters: at the moment, it is incomplete.

The Ministry of Commerce

In implementing the Dual Licensing Incentive Scheme, whereby the exporters are supposed to return an equal value of foreign exchange earned in actual imports, the Ministry keeps working files on Licenses Approve for the exporters. We used these files to improve upon our list of exports. However, to cut through the lengthy procedures to obtain an export license (which have only been simplified in 1990), business managers have been obtaining and hoarding licenses or simply selling them to other exporters who have no time to apply. Therefore, by looking at licenses issued, the *Report of a Committee on Uganda Airlines Freight and Handling Charges* noted that:

> One is not sure whether exporting has been done at all or whether export proceeds have been diverted (including capital flight) (Kawanga, 1990, p. 3).

The Ministry of Agriculture

The Ministry of Agriculture compiled a list of horticultural exports in July 1989. The list shows estimated production in 1989 and projected production for 1991. The list also shows estimated and projected exportable quantities in 1989 and 1990–91 respectively. This data would have been a good source of what products can be produced in Uganda and the surplus available for export. But the data gives over exaggerated numbers of both production and exports. Many key informants interviewed noted that the production data is estimated from offices, not in the field; it is therefore partly imaginary. The system of paying statisticians in the field a living wage, plus providing them with the necessary equipment and transport, broke down in the 1970 (Makerere University, 1990).

Border trade exports to Kenya: observations

A thriving boarder trade flourishes between Uganda and Kenya. This trade is not officially recorded as exporters avoid the cumbersome procedure of obtaining recommendations for export licenses from the local Government Resistance Councils. We sent an observer to the Kenyan boarder to record what items he saw actually being exported through *panya* roads (non-official crossing points), several times. We added these exports to our list. Time and resources did not allow us to observe the Western and Northern boarders which are also active. Therefore, whatever we added was only partial.

Semi-structured interviews

Due to the lack of reliable time series on non-traditional exports, we resorted to interviews to build data that can be used in analysing the non-traditional export sector especially in estimating the profitability of exports and the break-even exchange rates. A semi-structured questionnaire was developed and applied to exporters identified as active on the basis of regular shipments.

The PTA survey data

The Commonwealth Fund for Technical Co-operation funded a study summarized in the *Report on the Market Survey in Kenya, Tanzania and*

Zimbabwe for Selected Products. The items identified were added to our non-traditional exports list.

Data from the 1970s

Table 1, 2 and 3 of Section II were re-examined to identify which items can be revived for export and these were added to the list.

Conclusions on export identification data

Both quantities and values of exports from such diverse sources were incomplete, non-comparable, and sometimes outright guesses. Obviously, Uganda must develop a data base to guide policy on non-traditional exports, starting with as much documentation as possible from the list of exports we have identified.

Macroeconomic data and institutional analysis

Data on inflation, exchange rates and local market prices are available and up to date from the Research Department, bank of Uganda and from the Ministry of Planning and Economic Development. With respect to institutional data, we obtained a number of reports on export promotion and transport. The issues raised were cross-checked with several key informants interviewed. We also organized a seminar on Foreign Trade Policy and National Development in November 1989 at which exporters, academicians, and policy makers, discussed several institutional constraints. The proceedings supplemented our reports (Makerere University, 1990).

In general, the institutional data and macroeconomic aggregates are more reliable than the data on production and trade flows. However, there is a need to catalogue and keep the reports in one reference library so that they are easily accessible. The same reference library should also stock the policy papers describing export incentive schemes, which many exporters are unaware of because they are scattered in different Ministries.

Market prospects

Export prices

The Export Promotion Council keeps data on international prices of some horticultural crops. The prices represent the best market prices an exporter shipping the best quality items at peak seasons can realise. The exporters interviewed received much lower prices as they had less experience in quality control and marketing. These prices also need continuous review and should be available on a daily basis to enable exporters to calculate profitability of a consignment before shipment, like the practice in Kenya. Efforts by the PTA Secretariat to link member countries by computer listings of quantities, qualities and price of different commodities available in member countries etc, is a move in the right direction.

Local prices of exportables

A few of the export items have local prices published by the Ministry of Planning. This provides a basis for comparing the profitability of exporting versus supplying the local market. For other prices of exportables, we took what the exporters told us, which can be under-estimates to hide profitability and to escape taxation. Some exports, eg, horn tips, have no local prices because they are not consumed locally.

Income and price elasticities of demand

From the arguments of dynamic comparative advantage reviewed in the literature, we wanted to ascertain whether the commodities identified were income and price elastic. Since there were no time-series to calculate these elasticities at a desegregated level, elasticity estimates contained in the IMF report (1987a) on groups of commodities with similar characteristics to those produced in Uganda have been adopted. We have also made use of the report by Islam (1989) to extract elasticities for groups of horticultural exports.

Comparable data from other countries

To assess Uganda's competitiveness, we collected data from Tanzania and Kenya. Comparative data from Kenyan horticultural exports were obtained from two secondary sources: Schapiro (1986) and Hormann and Will (1986). It was not possible to update the data because it takes too long to obtain research clearance in Kenya. Other data on Kenya was obtained from the *Annual Economic Survey* and *Statistical Abstract.*

A fieldwork trip was made to Tanzania where primary data on their Export Retention Scheme, formed in October 1986 to diversify exports, was compiled from the riles of the National Bank of Commerce. It was up-to-date and reliable because of the monitoring scheme used to follow the flow of exports and imports and the use of the Foreign Exchange Retention Account. The Tanzania data collection method provides a practical and useful lesson for Uganda to improve on data collection.

V Identification of non-traditional exports which can be developed rapidly

This section analyses the data presented in Tables 8-13. The purpose is to identify exports with bright market prospects which Uganda can develop immediately to solve its crisis. The analysis follows the literature reviewed in Section III, which spells out desirable characteristics of exports which should be selected for development and diversification.

Because of the severe data limitations, the analysis is descriptive. Most of the time was spent reconciling data from different sources. We do hope, however, that the information assembled is clear enough to guide initial policies.

Potential and actual non-traditional exports: current practice

Table 8 presents data on actual non-traditional exports, and potential exports just entering the market; the potential exports are represented with two dots to prevent insignificant numbers from being entered in the table. The table indicates that non-traditional exports flow are minute, adding up to only 8.99% of the total exports of US$22.64 million in 1989. The effort needed to develop this sector is substantial, if the policy objective of US $100 million earnings per year is to be realized.

Second, trade flows are not only minute, they are also intermittent: past policies have been unable to enlist a consistently rising value of exports. This intermittent picture contrasts with that of Tanzania in Table 9, where an Export Retention Scheme to diversify exports, started in October 1986, is producing statistically visible results in two years. Uganda must be prepared to face stiff competition even from relatively underdeveloped neighbours like Tanzania.

Table 8 Uganda: identified actual and potential non-traditional exports, 1981-89 (US$ millions)

Commodity charge	1981	1982	1983	1984	1985	1986	1987	1988	1989
1. Agricultural raw materials: excluding horticulture (food)									
Beans	-	-	0.05	0.21	..	..	0.03	0.73	2.89
Cashew nuts	-	-	-	-	-	-	-	..	..
Cocoa	-	-	-	-	-	-	-	..	..
Groundnuts	-	-	-	-	-	-	-	..	..
Maize	-	-	-	-	0.30	-	-	0.25	0.12
Unmilled cereals	-	-	-	-	-	-	-	0.66	2.55
Oil seeds	-	-	-	-	-	-	-	..	..
Sesame	-	-	-	-	-	-	-	..	..
Soyabeans	-	-	-	-	-	-	-	-	..
2. Horticultural exports unprocessed									
Bananas	-	-	-	-	-	-	-	0.29	0.09
Bogoya	-	-	-	-	-	-	-	0.23	0.17
Flowers	-	-	-	-	-	-	-	..	0.08
Fruits	-	-	-	-	-	-	-	0.26	0.22
Ginger	-	-	-	-	-	-	-	0.48	0.26
Pineapples	-	-	-	-	-	-	0.01	0.68	0.28
Vegetables	-	-	-	-	-	-	-	0.45	0.40
3. Non-food agricultural raw materials									
Gum arabic	-	-	-	-	-	-	-	..	..
Papaine cruide		-	-	0.14	1.19	..	..	..	....
Timber	-	-	-	-	-	0.01	0.03	3.93	1.18
Live birds and animals	-	-	-	-	-	-	..	..	..
4. Minerals: unprocessed									
Tin	-	-	-	-	-	0.08	..	..	0.04
Zinc scrap	-	-	-	-	-	..	..	..	..
Salt	-	-	-	-	-	-	-	0.08	0.14
5. Processed foods									
Dried and smoked fish	-	-	-	-	-	-	-	0.47	1.82
Uganda waragi		-	-	-	-	-	-	-	....

Table 8 cont ...

Commodity charge	1981	1982	1983	1984	1985	1986	1987	1988	1989
6. Processed or manufactured goods									
Cables, plastics	-	-	-	-	-	..	..	..	..
Cotton seed cake	-	-	0.12	0.01	..	0.01	0.01	..	..
Electricity	-	-	-	-	0.91	0.97	0.77	0.38	3.31
Handicrafts	-	-	-	-	0.01	..	..	..	..
Lint	-	-	-	-	-	..	..	..	..
Safari suits (textiles)	-	-	-	0.02	..	..	..	..	..
Cattle horn tips		-	-	-	-	-	-	..	..010
Hides and skins	-	-	3.18	4.51	0.77	0.33	0.22	3.59	6.67
Other traditional exports	-	-	..	..	1.50	0.02	..	0.15	0.28
Total non-traditional exports	-	-	3.77	6.32	5.59	1.40	1.06	11.72	2264

Notes: there is a discrepancy in totals between Table 1, last row, and Table 8 last row. In Table 1, non-traditional exports contributed at most 3% in total exports receipts. Table 8 shows 8.99%: this larger figure may be due over-reported, adding smuggled items, et. The uncertainty of data raises one of the biggest constraints facing policy-makers.

Third, the bulk of exports consists of unprocessed raw materials (entries 1-4 in Table 8) of which agricultural food stuffs predominate (entries 1 and 2). Uganda will have to seriously consider replacement and expansion of her processing capacity. Given her inland locating and high transportation costs, some processing is necessary to add value and lengthen the shelf-life of the commodities.

In the processed categories, food and agricultural items predominate (entries 5 and 6). The exceptions are cable plastics, electricity and handicrafts. This suggests that agro-based industries will be the most logical starting point to process, manufacture, and differentiate, to build a more flexible export base.

Table 9 Tanzania: export retention scheme, export receipts by commodity catagory, 1987-88 (US$ million)

Commodity category	1987	1988
Agricultural products	5.98	13.07
Tourism industry	3.53	7.76
Forest products	1.22	3.00
Sea (marine) products	1.43	3.06
Live animals and birds	0.18	0.59
Sub-total	10.91	27.48
Industrial products	0.39	0.79
Minerals (game stone)	..	..
Other exports	0.44	1.54
Sub-total	1.23	2.33
Grant total	12.23	29.81

Source: United Republic of Tanzania, National Bank of Commerce, March 1990.

Identification of exports for development and diversification in the immediate future

Table 8 gives only the current practice. This need not be optimal: it may contain high-cost products in which Uganda cannot develop comparative advantage, or products whose international demand is declining and therefore products which are likely to face a secular decline in international prices. Since it is not diversification per se but diversification to increase earnings, Table 8 needs to be carefully combed to pick out only those commodities with the best prospects to recommend for policy action.

The demand side: international market prices

First, to ensure rising exports earnings, the commodities in which Uganda diversifies should have high and rising international prices. Tables 10–12 presents international prices data on Uganda's exports. In Table 10, the food grains are low-priced, with the exception of cashew nuts. Even in the neighbouring countries, food items are still low-priced in Table 11. Only ground nuts improve their price in Nairobi, Kigali and Dar-es-Salaam.

Uganda will have to reduce production and marketing costs and raise productivity to earn reasonable revenue from these low-priced exports. Uganda should also search for high-priced food items such as vanilla and cashew nuts for subsequent policy especially given its inland location and heavy transport cost to the sea. Transport costs account for 30 - 47% of total export costs to Mombasa (USAID, 1988). Air freight to Europe also accounts for about the same proportion for the relevant commodities.

Further, a comparison of Tabes 10 and 11 with Table 12 shows that the prices of non-traditional exports are not much better than those of traditional exports. These figures should convince Uganda that when diversifying, the existing traditional exports should also be kept for some time until new exports with high international prices can be sufficiently developed to provide the export base.

International market prices for horticultural commodities presented in Table 13 are much higher, on the average, than the prices in Table 10 - 12. However, many exporters we talked to indicated that they received much lower prices for horticultural exports than those in Table 13. The problems cited were low quality of export produce; intermittent delivery schedules, and improper packaging etc. Since the problems cited by Ugandan exporters originate from Uganda rather than from the international market, these problems must be addressed immediately.

The demand side: income and price elasticities of demand

We could not find income and price elasticities of demand at the individual commodity level, except at best, the data in Tables 14 and 15. In general, the countries that were used to compute the elasticities in Tables 14 and 15 had rising real GDP over the relevant periods: therefore, we did not need to investigate separately whether the markets were growing or not. On the average, over the relevant period, the annual rates of growth of real GNP were: Canada 4.0%, United states 2.7%, and Europe 2.5%.

Table 10 Market prospects: international prices of non-traditional exports: excluding horticulture (US$ per kg, parity prices), 1988-89

	1988	1989	1990 (cif Europe)
Bean	0.55	0.50	0.58
Groundnuts	0.35	0.35	0.39
Maize	0.17	0.13	0.11
Simsim	0.76	0.76	0.76
Soyabean	0.22	0.27	0.36
Cashewnuts	..	12.00	..

Source: USAID, 1988, Ministry of Planning, 1989, and Bank of Uganda, 1989.

Table 11 Market prospects: prices of food crops in capital cities of neighbouring countries, 1988 (US$ per kg)

	Kigali	Dar-es-Salaam	Nairobi
Beans	0.47	0.18	0.38
Groundnuts	1.20	0.96	0.84
Maize	4.40	0.67	0.19
Dry onions	..	..	0.80

Source: USAID, 1988.

Table 12 Market prospects: international prices of traditional export to European markets, 1990 (US$ per kg)

Commodity	April 1990	November 1990
Coffee Arabica	1.25	1.52
Coffee robusta	0.95	1.23
Cotton	1.50	1.85
Tea	1.30	2.20
Tobacco	1.80	..
Cocoa	0.85	1.25

Source: Ministry of Planning, April 1990, and Bank of Uganda, 1990.

Table 13 Horticultural exports: average international market prices, 1989 (US$ per kg)

Commodity	1984	1985	1986	1987	1988	Average 1988/89	
1. Aubergines	1.2	1.2	1.2	1.2	1.3	2.0	
2. Avocados	1.4	2.5	2.4	2.4	2.5	2.5	
3. Bananas (bogoya)	3.6	3.6	3.2	2.9	2.9		(1.6)
4. Bananas (green)	2.4	2.8	2.7	2.9	2.9		
5. Beans (green)	2.4	2.8	2.7	2.9	2.9	3.8	
6. Capsicum						3.0	
7. Chillies	3.4	4.4	4.3	3.8	4.3	5.3	
8. Garlic	5.3	5.2	5.2	5.0	4.6	5.0	
9. Ginger	2.25	1.7	1.7	2.1	2.4	2.2	(1.5)
10. Jack fruit	1.3	1.3	1.3	1.3	1.3		
11. Mangoes	2.8	2.6	2.6	2.5	2.6	2.8	
12. Okra	2.5	2.8	3.8	4.4	4.4	3.8	
13. Pepper	4.2	4.3	4.3	4.1	4.3		
14. Passion fruit	2.8	3.0	3.0	3.0	3.1	4.0	
15. Pawpaws	3.4	3.1	3.0	3.0	3.0	3.1	
16. Pineapples	0.8	1.4	1.4	1.4	1.7	1.8	(1.4)
17. Sweet potatoes	0.8	1.2	1.3	1.2	1.1	1.0	
18. Turmeric	2.1	2.1	2.0	2.1	2.3	1.0	(1.8)
19. Cucumbers							

Note: According to one exporter, 'Please note that the above figures seem to be inflated. They appear to be retail prices'. This view is widely shared by other exporters. These are the best prices for high quality produce at peak seasons. Uganda receives much lower prices, see Section VII.

Source: Uganda Advisory Board of Trade and Uganda Export Promotion Council, Ministry of Commerce, 1989.

The data indicates that in general, the price elasticities of demand are higher for processed than for non-processed commodities. This suggests that the stiff competition in the international market Uganda will face will increase with the degree of processing.

In theory, Uganda as a small exporter can consider the demand for her commodities abroad as infinitely elastic. However, at the disaggregated level, her own supply of say a particular fruit, during off-season, can influence the

market price. For this reason, it is relevant to investigate the price-elasticity of demand.

With the exception of roots and tubers (row 1b, Table 14) income elasticities of demand also increase with the degree of processing. If Uganda wants a growing market for exports, not only must it open trade with countries of rising incomes, but it must also deliver sophisticated processed products to compete in these markets.

From the list of current exports in Table 8, Uganda can consider the development of exports of processed wood products (eg, plywood), cotton products (lint, safari suits), leather and footwear.

Turning to Table 15, the relevant categories for rough comparison would be entries (1), (3), (4) and (6). All these entries are high income-elastic.

Table 14 Market prospects: income and price elasticities of demand for horticultural exports to European markets, 1989

Commodity group	Price elasticity	Income elasticity
1a Roots and tubers, fresh		
Fresh roots and tubers	-0.50	0.98
Miscellaneous vegetables	-0.52	0.89
1b Processed		
Roots and tubers	-1.00	-2.09
Pulses	-0.30	0.75
Miscellaneous vegetables	-1.29	3.34
2a Fruits, unprocessed and fresh		
Bananas	-1.60	0.67
Oranges	-0.60	0.90
Tropicao fruits, other	-1.04	0.38
Tree-nuts	-1.78	0.17
2b Processed		
Tropical juices	-2.24	2.09
Other tropical fruits	-1.50	1.39
Tree-nuts	-0.54	0.79

Source: Nurul, 1989.

Table 15 Selected industrial countries: import demand elasticities

Commodity	United States (Kreinin)		Commodity	Federal Republic of Germany (non-EEC imports)(Glismann)	
	Price elasticity	Income elasticity		Price elasticity	Income elasticity
1. Cotton products	-1.17	1.37	Clothing	-0.75[1]	3.50
2. Man-made fibre, textile products	-0.99	6.86	Textiles	-0.44[1]	1.49
3. Leather	-0.74	1.69[1]	Leather goods	-1.55	1.04
4. Footware	-0.79[1]	3.98	Shoes	-1.71	3.31
5. Plywood	-0.51[1]	2.39	Plastic goods	-1.19	5.01
6. Electronics machinery and equipment	-0.92	3.39	Music goods and toys	1.04[1]	5.36
7. House electronomic equipment	-0.71	7.74	Electronics	-0.85	3.18
8. Photographic equipment	-1.08	2.86			

Note: [1] Indicates that elasticity is not significantly different from zero at the 10% level of significance.

Source: Donges, G.B. and J. Riedel, cited in IMF, 1987.

Unlike income elasticities, in Table 15, except for cotton products and photographic equipment, the price-elasticities of demand are low, the absolute values are less than one. This might suggest less price competition. However, if Uganda is to enter the international market, she will have to offer attractive prices to overcome the barriers to entry.

Identification of exports for development and diversification in the immediate future: the supply side

Ideally, the commodities in Table 16 should all be ranked according to the Domestic Resource Cost index (DRC) and the index should then be compared to the equilibrium exchange rate. The commodities whose DRC is found to be lower than the equilibrium exchange rate would qualify to be developed for export (see Section III). Without the equilibrium exchange rate, the official rate was used.

Such ranking appears in Table 16, column (1). Six non-traditional commodities passed the DRC test: cashew nuts, simsim, beans, bananas, ginger and pineapples, in May 1990 when the official exchange rate was 390Ug.Shs per US$. At the bottom of the table, only three of the traditional exports passed the DRC test: tobacco, tea and Arabic coffee.

The ideal data

Ideally, the DRC calculations should cover all commodities identified as potential exports in Table 8. Unfortunately, at the moment only 20 non-traditional exports are covered. The DRC ratio provides an important data base which should be developed.

The official exchange rate should be approximately equal to the equilibrium exchange rate for the economy to guard against misallocating resources. The programming approach is the best method to calculate the equilibrium exchange rate for the economy (as described in Section III). This data does not exist in Uganda either and needs to be developed immediately.

Extensions of supply-side analysis

A parallel market exchange rate was also used to provide cutoff points of which exports should be developed (assuming that it is closer to the equilibrium exchange rate). The parallel market rate was 670 Ug.Shs per US$

Table 16 Uganda's exports according to comparative advantage

Commodity	Domestic resource cost		Break-even exchange rate	Official exchange rate			Parallel market		
	Mar 90 (1)	May 90 (2)	Nov 90 (3)	May 90 (4)	Nov 90 (5)	Dec 90 (6)	May 90 (7)	Nov 90 (8)	Dec 90 (9)
1. Cashew nuts	8.12	..	..	390	510	510	670	752	769
2. Chillies	..	..	94						
3. Cabbage	..	..	123						
4. Simsim	311	..	..						
5. Beans	343	..	..						
6. Bananas	360	641	633						
7. Fish (SPP)[1]	..	563	397						
8. Ginger	385	698	629						
9. Pineapples	390	..	834						
10. Fish (SFT)[2]	..	578	405						
11. Vegetables (fresh)	420		567						
12. Soyabeans	566								
13. Groundnuts	1240								
14. Maize	3153								

Comparison with traditional exports

1. Tobacco	241.45	4. Coffee, robusta	506.60
2. Tea	326.22	5. Cocoa	517.41
3. Coffee, Arabic	349.69	6. Cotton	755.11

Note: 1. SPP: smoked fillet of Nile Perch; 2. SPT: smoked fillet of Tilapia.

Table 16a Average exchange rates of foreign exchange bureaux (replacing the parallel market, 1990) Ug.Shs per US$

	Buying	Selling
November	787	767
December	749	788

Source: Ministry of Planning, March 1990, Semi-structured interviews of exporters, October 1989 and November 1990, and Research Department, Bank of Uganda.

in May 1990. At this rate 12 non-traditional commodities became competitive in column (1), adding soybeans and fresh vegetable. Among the traditional export, Robusta coffee and cocoa became competitive.

Break-even exchange rates

With the time and resources allocated to this paper, it was not possible to gather the detailed farming-system data needed to update the DRC of the commodities in column (1) or to extend the calculations to more commodities. Instead, in columns (2) and (3), we calculated exchange rates at which the exporters of the identified commodities break even.

This method is simpler to update as well, and we updated the calculations in column (2), in November 1990; the new results are reported in column (3).

Concentrating on column (3), four commodities are profitable at the official exchange rate and seven at the parallel market rate. The relevant exchange rates are in columns (5) and (7), as 510 and 670 Ug.Shs per US$.

Sensitivity and usefulness of the data in Table 16

First, the DRC calculations should be immediately extended to more commodities. Second, the calculations should be periodically updated since

costs can change appreciably in response to shocks, for example, the Gulf crisis. For example, the costs for ginger and pineapples went up appreciably between May and November because these are heavy commodities grown by scattered producers with high transport costs. Third, the comparison of DRC ratios should be with the equilibrium exchange rate for the economy.

Conclusions: identified exports for immediate development to diversify the export base

On the demand criteria, horticulture as a group stands out with the best market prospects, plus cashew nuts and vanilla. This is a small range of commodities to constitute a new export base. The current exports earnings out of the identified exports above amounted to US$2.35 in 1988 and declined to US$1.50 million in 1989. These minus export values must be assisted to rise systematically. The policies needed to bring about these changes are examined in Sections VI and VII.

Given the very small range of exports, Uganda has to reduce costs, increase productivity, and generally upgrade traditional exports for some time despite low market prospect, until higher value exports pick up.

On the supply criteria, simsim, beans, fish and soybean qualify to be added to the non-traditional export list. However, available data on comparative advantage needs to be improved before it can provide reliable results to guide policies. The cost-structure of some of the commodities whose break-even exchange rates were calculated in column (3) of Table 16 will be discussed in Section VII to provide further guidance for policy.

Processing was identified as most desirable: processed and manufactured goods had higher income and price elasticities of demand. On the supply i.e., processing adds value, lowers weight, and lengthens the shelf-life. The bulk of exports identified are raw-materials, however. The problems Uganda faces in developing processing capacity will further be discussed in Section VII.

VI A review of policies for export development and diversification, 1981–90

This section reviews the policies instituted by government for export development and diversification to identify why these policies have failed to make a substantial difference in the trade statistics, and to suggest desirable changes.

Exchange rate policy

The major policy instrument has ben exchange rate adjustment, in a number of variants. The first was overall devaluation; the second was a dual exchange rate system W_1 and W_2 that gave a higher W_2 rate to non-traditional exports; the third variant was to give a higher implicit exchange rate to exporters in the Dual Licensing Scheme than was possible by devaluation, as a transitional measure to complete exchange rate liberalisation. The fourth started in August 1989 when the government adjusted the official exchange rate on the basis of net inflation against major trading partners. As the realised real effective exchange rate was found to be lower than that required to sustain investment in the coffee sector and at the same time, promote export diversification, it was decided in July that in addition, the exchange rate should be adjusted further from time to time to allow for a real devaluation of the Uganda shilling that would promote exports.

Barter

A second policy was to use barter trade to develop new markets, with the emphasis on barter to the PTA, for new commodities which would diversify the export base.

Retention scheme

The third policy was the foreign exchange retention scheme started in March 1989.

Exchange rate adjustment: variant I devaluation

From June 1981 to August 1982 Uganda undertook a series of devaluations of the local currency in order to eliminate the implicit tax on exports from the over-valued currency of the 1970s. One major objective of devaluation was to pay higher prices in local currency to export producers, without printing money. A second perhaps more important objective was to raise government revenue from this non-inflationary source, so as reduce borrowing from the Central Bank. The nominal exchange rate figures between 1981 and 1985 are given in Table 17.

Higher prices were to direct previously smuggled coffee into official channels, stimulate better husbandry of those coffee trees that survived the 1970s, rehabilitate abandoned *shambas* (small farms), and revive the production of tea, tobacco and cotton.

The response to devaluation was positive on coffee, as shown in Table 1 by the increase in the volume exported over the period 1982–1985. Diversion from smuggling increased the coffee volume in 1982 and 1983, while improved husbandry and rehabilitation of abandoned sambas sustained the higher volumes in 1984 and 1985. The volume changes moved from 128,000 metric tons in 1981 to 175,000 in 1982, 144,000 in 1983, 133,000 in 1984 and 151,000 in 1985.

After 1984, revisions of producer prices lagged behind changes in the CPI thus wiping out the producer incentive. Although coffee continued to bring high earnings beyond 1985 because of good international prices, the earnings from cotton, tobacco and maize tapered off, as indicated in Table 1.

The W_2 dual exchange rate system and non-traditional exports: August 1982 to May 1984

In August 1982 a second Window (Window 2) was opened for the purchase and sale of foreign exchange at the Bank of Uganda, at a rate determined at the weekly auction by private bids. The auction rate was above the official rate Window 1, and both rates gradually rose to approach the parallel market rate

Table 17 Nominal exchange rate, 1981-84 (Ug.Shs per US$)

	1981	1982		1983		1984	
	Official rate	W_1 official	W_2 auction	W_1 official	W_2 auction	W_1 official	W_2 auction
January	0.076	0.860		1.070	2.350	2.41	2.99
Februarh	0.078	0.860		0.020	2.300	2.53	3.03
March	0.079	0.858		1.166	2.360	2.74	3.20
April	0.080	0.859		1.197	2.680	2.92	3.18
May	0.081	0.874		1.283	2.755	2.92	3.26
June	0.186	0.942		1.388	2.900	3.07[1]	
July	0.794	0.987		1.551	2.937	3.39	
August	0.817	0.992	3.00	1.665	2.936	3.74	
Spetember	0.805	0.991	3.00	1.763	2.710	4.0	
October	0.791	0.997	2.00	1.856	2.955	4.46	
November	0.783	1.017	2.52	2.067	3.260	5.47	
December	0.856	1.048	2.40	2.338	3.025	5.52	

Note: 1. From June 1984 when the exchange rates were unified budgetary discipline became less strict and inflation accelerated leading to rapid depreciated of the nominal rate.

Source: Repubic of Uganda, *Background to the Budget 1989-90*, July 1989, p. 147, Table 18.

by May 1984, when they were merged. The relevant nominal rates are given in Table 17.

Those shipping non-traditional exports were allowed to convert their foreign exchange earnings at the higher Window 2 rate.

A look at Table 1 in Section II over the period 1982–84, shows that the response to W_2 in terms of foreign exchange earnings was meagre. Entries of rows 5, 6, 9 and 10 in Table 1 which were predominantly non-traditional exports, show a very weak response.

Row 9 is large because it contains maize shipments to Tanzania which were to pay for its contribution to the war of 1978–79. Apart from maize, only hides and skins as a single item shows a response of US$3.18 million in 1983 and US$4.51 million in 1984 (see row 6 in Table 1). According to an informed analyst, the hides and skins 'were fairly active export products even before the introduction of the dual exchange system'. They were simply diverted from smuggling into official channels (Mahmood, 1983).

The diversion from smuggling was further assisted because the higher government revenue from the foreign exchange earnings, converted after devaluation, were used to pay cash to the farmers on delivering the crop and thus partly solved the problem of crop-finance. A comment on W2 in Table 17 in 1983, for example, points out that development policy changes should accompany exchange rate adjustment:

> In the context of Uganda, exchange rate policy by itself may not be sufficient to give a strong impetus to exports, it also seems essential to evolve and execute production specific projects in order to increase production and improve marketing system in general (Mahmood, 1983 p.5).

The dual licensing system: a variant of exchange rate adjustment No. III

In mid-1988, a joint Agricultural non-Traditional Export Promotion Programme between the USAID and the Government of Uganda was launched with three purposes:

1. To simplify import-export procedures so as to divert previously smuggled trade into official channels;

Table 18 Real producer prices (Ug.Shs per kg (old shs))

Effective date of price increase	CPI	Robusta coffee	Arabica coffee-bugishu	Non-bugishu Arabica	Seed cotton
Base					
09.05.81	100	20	37	32	15
11.11.81	92	38	71	61	33
07.05.82	111	45	84	73	36
09.05.83	148	41	70	59	33
01.07.83	153	52	91	77	39
21.12.83	170	60	104	88	53
10.06.84	181	72	130	100	70
29.10.84	250	84	140	110	72
24.06.85	502	54	84	72	12

Source: Real Ug. Shs per kg were calculated by deflating the nominal producer prices annnounced by the Kampala cost of living index, low-income group 1981=100, using the rates of inflation for the corrresponding date, in column 1.

2. To allow the exporter of non-traditional commodities to return foreign exchange in terms of imports of equal value by issuing them with a 'dual license' for exporting and importing. The measure was to partly prevent capital flight, and partly to offer an 'implicit higher exchange rate' to the exporter. Our estimates during fieldwork suggest that the 'implicit exchange rate' ranged between Ug.Shs 1,000 and 1,500 per US$. This compared very favourably with the official exchange rate in column (4) of Table 16 which was only 360 Ug.Shs, per US$ for May 1990. The 'implicit rate' also compared favourably with the open market Kibanda rate which varied between Ug.Shs 500 in December 1989 and Ug.Shs. 750 in November 1990 per US$.
3. The dual licensing scheme was made even more attractive by offering foreign exchange at the official rate under a trade promotion line of credit administered by the Bank of Uganda. The importer qualified to have access to this money by proving that the imports were required in the production of non-traditional exports, such as: improved seeds; high analysis fertilisers; steel for the local manufacture of hoes and pangs; raw jute to manufacture gunny sacks; export packaging materials and raw materials to manufacture them locally (USAID, 1988).

Table 19 shows the response of exports to the Dual Licensing scheme as reported by the Ministry of Commerce on the basis of the value of licenses issued. Despite the very high 'implicit rate', the response in terms of exports earnings is still undramatic. The Uganda response compares less favourably to the Export Retention Scheme of Tanzania from which the foreign exchange earnings in two years (1987 and 1988) were shown in Table 9 (and are reproduced at the bottom row of Table 19).

The Tanzania Retention Scheme also allowed a high 'implicit' rate which exporters could earn by using 50% of their foreign exchange earnings to bring imports for sale at open market prices. The Tanzania response is 40% above that of Uganda for the comparable period of two years. The nominal exchange rates relevant in Tanzania over the period of the retention scheme are given in Table 20. The largest increase in exports in Table 19 was from hides again, just like in the case of W2. This is previously smuggled output diverted into official channels and *not* new output.

The scheme has been criticised by exporters because the export-import cycle takes at least two to three months to sell off the imports before local cash can be acquired to finance the next round of exports. This cumbersome procedure cuts done turn-over. In addition, an efficient exporter needs not be an efficient importer and the scheme hampers specialisation. A more devastating criticism is that looking at the licenses issued neither assures you that exports were shipped non imports brought. For example:

> The figures for bananas were supposed to be exported by Foods and Beverages Ltd. but they were actually never exported (Kawanga, 1990, p.15).

An accurate data base is required from customs data to monitor actual flows of exports and imports against the licenses issued by the Ministry of Commerce and the foreign exchange receipts registered by the Bank of Uganda.

The foreign exchange retention account variant of exchange rate policy IV

Whereas in the Dual Licensing System the exporter had to immediately spend his foreign exchange on imports to be returned, in March 1989 the 'Retention Account' was instituted to allow the exporter to 'retain' 100% foreign exchange earned at his/her commercial bank, and apply to use it at a later date of his/her choosing to import any commodity on the list approved by the Bank

Table 19 Exports under the Dual Licensing Scheme, 1988 to June 1990 (US$)

Commodity	1988	1989	Jan-June 1990
Bananas	285,671.14	90,822.97	43,010.00
Bogoya	230,810.88	169,662.75	18,899.0
Beans	726,288.80	2,894,193.73	5,175,622.40
Maize	324,710.07	124,200.00	500,192.26
Other cereals	662,142.50	2,548,676.34	0.00
Ginger	478,079.53	261,531.98	198,113.88
Pineapples	680,664.44	279,109.22	212,427.88
Fruits	257,337.27	223,655.05	27,605.00
Vegetables	449,585.85	349,716.67	0.00
Teas	794,000.00	2,263,274.86	1,847,706.90
Tobacco	89,704.00	39,711.00	9,169.00
Other crops	69,855.46	862.88	0.00
Timber	3,927,140.04	1,176,333.21	656,487.36
Sale	80,632.00	135,708.33	27,760.00
Hides	3,587,354.00	8,685,382.00	3,514,492.21
Fish	474,591.50	1,822,638.82	880,444.63
Other exports	148,918.19	278,654.00	0.00
Simsim	-	-	7,038,997.80
Soyabeans	-	-	25,000
Sugarcase	-	-	3,850.00
Cassava flour	-	-	16,300.00
Cattle	-	-	175,000.00
Cattlehorn tips	-	-	56,900.00
Chillies	-	-	2,205.00
Vanilla	-	-	20,415.00
Flowers	-	-	29,850.00
Ghee	-	-	4,000.00
Groundnuts	-	-	4,000.00
Goats	-	-	8,333.33
Handicrafts	-	-	547,000.00
Honey	-	-	8,324.02
Melon	-	-	5,250.00
Millet	-	-	2,519.00
Mondarines	-	-	8,333.33
Okra	-	-	2,519.00
Oranges	-	-	2,519.00
Papain	-	-	5,000.00
Total	13,267,485.67	21,344,133.71	21,081,165.00

Notes: 1. Government barter protocols are excluded. These figures ar as per the licenses issued. 2. The most export commodities whose figures appear in only 1990, were summed up under 'other' for the years 1988, 1980 when they were too small to be entered seperately. Source: Minsitry of Commerce, export licences issued, and Bank of Uganda, Research Department.

Table 20 Tanzania: mean exchange rates since the inception of the Export Retention Scheme (nominal values, T.Shs per US$)

Month	1986	1987	1988	1989
January		53	..	..
February		55	..	130
March		57	..	134
April		59	..	136
May		62	..	137
June		63	..	145
July		65	..	145
August	43	67	..	145
September	44	70	..	145
October	46	73	..	147
November	49	76	..	155
December	51	83	..	192

Source: United Republic of Tanzania, National Bank of Commerce, March 1990. No figures were recorded for the dotted Months.

of Uganda, or any other commodity required as an input to produce non-traditional exports.

The exporters interviewed stated that they could not trust the Bank of Uganda to allow them to use their foreign exchange if the bank had other pressing commitments. By April 1990, a year later, only 29 Retention Accounts had been opened (Kawanga, 1990). In Tanzania, which has only 50% retention, an exporter can cash part of his foreign exchange and use the proceeds for working capital. Apparently the sense of confidence in the scheme in Tanzania is greater than that in Uganda.

Forex bureau

In July 1990, the government liberalised the foreign exchange market by authorising the purchase and sale of foreign currency limited to hard currencies, by licensed forex bureaux. A bureaux freely sets and displays the rates for foreign currencies.

With the exception of the Coffee Marketing Board, all other exporters can freely exchange export proceeds at the bureaux rates. The main advantage to exporters is the ability to convert proceeds into Ug. Shs. at the high bureaux rate at free will. This enables them to specialize in export business.

It is still too early to assess the impact of bureaux on export promotion and diversification. However, it is also doubtful whether the effect of this policy can be identified unless the system for tracking exports is improved. This subject is pursued by the authors in a subsequent study, 'Exchange Rate Unification and Economic Development', supported by the AERC.

Barter trade, 1984–89

Barter trade was started in 1984 and was given even greater emphasis by the current government in 1986–88. Government to private company barter deals cover a large number of countries outside the former Eastern European Bloc; for example, the USA, West Germany, and Italy. By June 1988 contract values stood at: government to government, exclusively with the Eastern Bloc, US$96 million; government to private companies, US$111.1 million; and non-government to private companies, US$21.0 million for non-traditional exports only (Bank of Uganda, 1987/88, and Ministry of Commerce, 1988).

The primary objective of barter trade was to economize on payments with scarce foreign exchange. A second important objective was to increase and diversity exports as:

1. There was a higher 'implicit exchange rate' for barter exporters;
2. Barter opened up new markets for traditional exports: tea, tobacco, surplus coffee not sold to the quota markets and cotton; and
3. New exports that were not entering the traditional markets could also enter barter.

In category 3 the original emphasis was on grains: beans, groundnuts, maize, simsim, soyabeans, but later other non-traditional exports were also considered; cotton yarn, hides and skins, and timber.

Government to government contracts and government to private company contracts, were handled by parastatals; the Coffee Marketing Board (CMB) for coffee; the Lint Marketing Board (LMB) for cotton products; the Produce Marketing Board (PMB) for grains; Uganda Tea Authority for tea; Uganda Leather and Tanneries Industries (ULATI) for hides and skins; and Uganda Hardware for timber.

Except for coffee, barter trade has been characterized by lack of internal marketing logistics including lack of gathering, sorting and grading places; general ignorance about local supply, quality and quantity and whether or not there was a surplus for export; plus lack of valuation procedures. The absence of these logistics left the bulk of barter deals to be filled with coffee shipments, contrary to the objectives of export diversification. By June 1988, around 73% of barter exports, equivalent to US$59.03 million was accounted for by coffee shipments. Also the inertia and inefficiency of parastatals led to liberalization to allow private companies to enter into deals with other private companies in non-traditional exports.

By early 1989, the government began to realize that barter trade was not working well, and had turned out to be an inefficient diversion of attention from serious policies of export development.

Regional trade and the PTA

The preferential trade area (PTA) was one of the new markets in which to expand non-traditional exports, largely through barter, to economize on the use of hard currencies. Uganda signed the Treaty establishing the PTA in December 1981. Table 21 gives Uganda's trade flows to and from the PTA, and market share.

The general marketing logistics that bedeviled barter are equally applicable to trade with the PTA, and have forced Uganda to settle balances in scarce foreign exchange since it could not raise exports.

Uganda has been advised to settle marketing logistics, to establish bilateral commissions with individual countries in the PTA, and to negotiate improved access of Ugandan goods. This advice is in the light of the *slow* negotiations for payment clearance and reductions of both tariff and non-tariff barriers globally all over the PTA (Commonwealth Fund for Technical Cooperation, 1989).

Currently, the contribution of the PTA to Uganda's export expansion and diversification is minimal. Given her poor processing capacity, Uganda has a comparative disadvantage to export manufactures to the PTA. Therefore,

expansion of exports to the PTA will require adoption of development policies to restructure processing and manufacturing capacity.

Other policies geared towards export development

The government is becoming increasingly aware of the gravity of the problems facing the export sector and has announced a number of measures during 1990 to further encourage non-traditional exports. These include:

- The Bank of Uganda refinancing the commercial banks that lend to private buyers of export crops;
- All officers handling potential exporters to be resident in the Ministry of Commerce as opposed to the previous situation where exporters had to clear with the Ministries of Commerce, Finance and the Bank of Uganda;
- Exporters required to produce tax clearance only once in six months or even once in a full year, for those with a good record;
- No export tax levied on exports except coffee;
- Regular exporters to be permitted to operate forex accounts in commercial banks;
- Exporters of manufactured goods to have sales tax and excise duty on the quantities of good exported refunded by the government;
- Exporters of locally manufactured goods using local raw materials to further benefit from a reduction in corporation tax.

Evaluation of policies, 1981–90

The basic thrust during the period 1981-90, was exchange rate policy, in various forms, and the evaluation will concentrate on this policy.

Overall devaluation

The response of export producers, to higher prices in local currency made possible by devaluation, was positive. However, it was short-lived, and lasted only from 1981 to 1984, as illustrated in Table 1, especially coffee, cotton and total exports.

Table 21 Uganda: intra-PTA trade and percentage share of the PTA market, 1982-88 (US$ million)

Country	Exports								Imports					
	1982	1983	1984	1985	1986	1987	1988	1989	1983	1984	1985	1986	1987	1988
Djibouti	6.80	10.00	8.20	6.10	14.40	19.10	20.70	50.30	39.00	39.90	16.60	18.00	21.60	25.90
Comoros	0.00	0.30	0.40	0.40	0.50	1.30	0.40	4.70	2.80	5.40	4.20	3.90	5.10	5.50
Burundi	0.99	2.57	6.15	7.41	6.63	3.23	4.15	25.13	14.41	20.34	18.17	18.39	21.75	23.11
Mauritius	1.40	2.06	3.34	2.19	2.21	2.48	3.19	16.65	15.25	14.30	80.46	7.07	8.91	8.46
Rwanda	2.12	0.68	3.25	3.71	4.37	119.11	90.10	77.15	62.41	69.83	40.51	40.53	47.72	45.82
Tanzania	14.50	12.40	12.90	8.50	7.40	7.50	9.70	34.30	34.20	35.10	35.50	33.80	40.60	50.70
Zambia	47.60	46.10	24.90	26.20	47.90	44.20	42.60	65.20	44.00	40.70	33.20	44.60	51.30	75.20
Zimbabwe	63.60	55.40	58.30	66.50	61.80	83.60	102.80	49.00	33.10	32.70	26.50	33.80	31.80	36.50
Uganda	2.96	5.96	13.45	3.98	4.09	4.71	5.86	111.83	116.10	108.03	112.64	112.09	141.41	169.49
Somalia	0.64	0.43	5.03	0.32	1.06	1.12	1.39	39.61	10.67	15.30	13.01	18.05	22.64	27.18
Malawi	17.77	20.14	22.16	21.91	11.47	12.14	17.69	25.76	31.88	29.42	22.97	16.67	24.75	35.38
Ethiopia	38.60	32.53	30.37	13.02	14.17	16.75	19.91	7.44	9.65	7.07	5.89	11.83	12.21	14.48
Kenya	203.60	188.30	185.90	179.00	183.20	222.40	256.10	35.50	16.20	16.03	15.80	22.00	154.50	125.70
Total	402.60	375.87	374.35	339.24	359.19	537.64	574.59	542.47	429.67	434.39	355.45	390.73	584.29	643.42
Market share (%)	0.74	1.58	3.59	1.17	1.14	0.88	1.02	20.61	27.02	24.87	31.69	31.25	24.20	26.34

Note: the data for Swaziland and Lesotho are not given separately. They are lumped together under South Africa and not shown here as South Africa is outside the PTA.
Source: computed using data from International Monetary Fund *Direction of Trade Statistics Yearbook 1989.*

It is statistically impossible to isolate the effect of overall devaluation from that of other variants of exchange rate policy, such as W2 in Table 17, except for coffee which did not benefit from the higher exchange rates. If we concentrate on coffee, the higher rate of inflation eventually wiped out the increase in real producer prices, as illustrated in columns (3) and (4) of Table 18.

The conclusion on inflation is supported by Table 22 which shows that Uganda's determination to control money supply and the rate of inflation only becomes visible from mid-1989. This conclusion is also supported by the theory reviewed in Section III) which states that for exchange rate policy to work, it must be supported by consistent macroeconomic policies.

Institutional reforms to support devaluation

Although devaluation was unable to enlist a permanent increase in exports, some observers contend that the higher producer prices, devaluation made possible, diverted previously smuggled trade into official channels. This conclusion is debatable since smuggling in Uganda has continued to-date despite continuous devaluation.

Others contend that in the 1982-84 period, the high coffee response was due to paying cash to coffee farmers on delivering the crop, rather than the high producer prices *per se*. If this is so, then devaluation which made the higher prices possible, needed reform of the marketing system as well to transmit the price incentive to the producers promptly. By tackling the problem of crop finance in the recent 1990 policy measures the government is moving in the right direction to make the devaluation tool more effective, and hopefully reduce smuggling as well.

Simplifying export procedures should improve the transmission mechanism of whatever incentives are given by government to exporters.

Caution on devaluation

As the rate of inflation subsides, devaluation should be used more sparingly as it has other adverse consequences for the economy. For example, devaluation increases the cost of imports in local currency, including imported inputs. This aggravates the demand for working capital.

Table 22 Uganda: broad money and rates of inflation

	M2 (Ug.Shs billion) (1)	Annual change of new consumer price index, base Dec 1988=100 (2)
1984	1.2	159
1987	18.54	132
1988	39.19	159
1989		
January	41.95	132
February	45.92	117
March	50.68	111
April	54.64	107
May	56.92	106
June	60.17	106
July	59.27	65
August	51.80	47
September	66.14	65
October	666.95	77
November	69.07	68
December	79.10	67
1990		
January	83.52	72
February	88.61	65
March	67.74	54
April	88.20	41
May	90.37	33
June	94.43	26
July	97.73	23
August	101.15	26
September	103.44	28
October	107.32	29
November	107.69	27
December	112.02	25

Source: Bank of Uganda, Research Department, May 1990.

The literature reviewed in Section III also argued that repeated devaluations which hide the underlying causes of disequilibrium erode confidence in the local currency.

In Table 23, we present the official and parallel market exchange rates plus the real effective exchange rate. Taking March 1990 for example, the official exchange rate was Ug.Shs 379.00, while the real effective exchange rate was Ug.Shs 476.26. At that time the break-even exchange rate for coffee Robusta was Ug.Shs 506.60 per US$ (see Table 16). This reflects the high production cost in the coffee sector. Policies to lower costs and increase productivity should be used instead of devaluation to support high-cost production.

Exchange rate unification and 'implicit exchange rates'

Schemes like W2 in Table 17, dual licensing, barter trade etc, were used to offer a 'higher implicit rate' to exporters than the official rate. It appears that these higher exchange rates by themselves were not sufficient to stimulate exports and to diversify the export base. Responses from hides and skins, cotton, tea timber, horticulture, etc. are minute and intermittent in the official statistics.

The multiplicity of 'higher implicit rates' can introduce new distortions in the economy: barter proved so inefficient that strong government backing gradually faded; dual licensing lowered turn-over and prevented specialization.

The recent move to start the bureau-de-change and to narrow the gap between the bureau and the official rate appear to be in the right direction to unify the exchange rates. The policies in the 1990s should abandon 'implicit rates' and tackle the deep seated development problems directly: improve productivity; replace processing capacity to compete in the PTA; straighten out the marketing logistics to move food grains, for example beans, maize; provide crop finance; reform parastatals; and reduce costs.

Export incentives of the 1990s

The policies reviewed seem to centre around tax incentives to increase exports. The literature reviewed in Section III argues that such incentives need to be carefully designed to avoid encouraging high cost exports in which the country cannot develop comparative advantage. Such incentives have not proved successful in export development and diversification in the past 15 years.

Finding a new tax base for Uganda is a real problem since the coffee export tax which used to provide over 50% of government recurrent revenue subsided with the fall in the international price of coffee. But the issue of a new tax

Table 23 Uganda: exchange rate developments, 1984-90

Year/ month	Nominal exchange rate(official)	Parallel market exchange rate	Real effective exchange rate
1984	3.0	5.83	5.83
1987	60.0	169.41	97.50
1988	106.0	414.00	207.44
1989			
January	165.0	396.00	280.68
February	165.0	406.00	308.10
March	200.0	460.00	337.69
April	200.0	520.00	355.90
May	200.0	566.00	378.00
June	200.0	612.00	400.12
July	200.0	613.00	414.00
August	200.0	592.00	423.52
September	200.0	610.00	443.70
October	340.0	633.00	462.33
November	370.0	715.00	476.15
December	370.0	751.00	479.06
1990			
January	375.0	763.00	457.18
February	379.0	716.00	459.26
March	379.0	642.00	476.26
April	379.0	644.00	480.46
May	383.0	650.00	470.71
June	397.0	657.00	480.32

Source: calculated by author

base should not be mixed up with export development: pressure groups might use the exports sector to avoid new taxes. In any event, a data base should be set up to evaluate the cost and benefit to the economy of this multiplicity of incentives.

Conclusion

After ten years of policies to encourage exports based on the exchange rate, Uganda is gradually liberalizing the market and controlling inflation to make

the exchange rate tool work. The country is also moving to unify the exchange rate.

Having cleared the macro-economic background, the 1990s should concentrate on the specific development problems of the export sector: the most important of those as discussed in Section VII.

VII Policy changes to remove persistent constraints to export development and diversification

The state of the exports sector at the beginning of the 1990s

It is fair to describe the state of Uganda's export sector as that of near-panic. While overall macro-policies are getting in place, as noted in Section VI, no consistent and significant response appears in the official export statistics.

The country is getting deeper into debt: reliance on foreign loans and grants to finance imports is increasing while exports proceeds from coffee continue to decline (see Section I). The following quotation describes the state of panic:

> At all levels, from growers to overseas buyers, the current export trade is reactive, unplanned, and highly unstable. Cost-structures are artificial, technical support hardly exists, production is unpredictable, packaging unreliable, quality is minimal and marketing arrangements are geared to short-term benefits in a high risk environment. The result of this is the lack of confidence among growers, exporters, and buyers, which prevents long-term planning (Kawanga, April 1990, p.3.).

The purpose of this section is to suggest some orderly approach to tackling the persistent constraints that the policies of Section VI have not been able to remove.

Methodology

In the process of collecting data (described in Section IV), we built a basic table, on eight specific exports categories; we then used the Table to rank the persistent constraints in order of relative importance which can be tackled by policy.

Data problem

Before we even launch into Table 24, the first and most important problem is the uncertainty of existing official data on non-traditional exports, as documented in Section III and summarized here for emphasis.

Figures of licenses issued by the Ministry of Commerce do not tell whether exports actually left the country.

Customs records would be the most reliable on trade flows: but customs posts must be specified, given the many *panya* roads at the borders. The exporters need to be assured that reporting to the customs department accurately will not result in penalty: confidence has to be built up to stop smuggling, which still continues.

But even when customs data is in place, there are other relevant data to exports development and diversification: calculations of equilibrium exchange rates: farming systems data to calculate DRC ratios for agricultural crops; and extension of DRC ratio calculations to non-agricultural crops; f.o.b. prices; other prices on the international markets (which Kenya posts daily at the airport for horticultural crops to guide shipments, for example); information about competitors to identical exports markets etc.

Policy makers must be convinced that they need the data to make intelligent decisions, and to monitor and evaluate policies: they should demand the data and stand ready to finance its collection or seek donor assistant to support the data base.

It is also necessary to decide who collects which data, by what consistent methods and where it is to be reported and analyzed. Among the candidate institutions to consider are: Ministry of Finance (customs); Ministry of Commerce and Marketing (Export Promotion Council); Ministries of Agriculture, Industry; Bank of Uganda for macro-aggregates; Ministry of Planning and Economic Development, and Export Promotion and Analysis Development Unit (EPADU); Ministry of Tourism on information about tourists, earnings from tourism and supporting service industries; etc.

Data bases also take time to build up. Meanwhile, informal research methods should be used to collect some minimum working numbers such as those in Table 24 to guide policy on the constraints we now proceed to discuss.

Table 24 Cost for development exports, showing the relative importance of the constraints (cost items 1-8) and how they relate to exchange rate policy in late 1990 (November)

Cost items	1 Pineapples 5 tons	2 Bananas 1 ton	3 Ginger 5 tons	4 Vegetables 2 tons	5 Cabbage 170 tons	6 Chillies 25 tons	7 Fish (SFT) 1kg	8 Fish (SFP) 1kg
1. Labour costs on the farm	40,678.00	12,930.00	86,178.45	12,930.00	100,000.00	100,000.00	1,915.00	1,915.00
2. Entebbe charges	21,600.00	4,320.00	21,600.00	8,600.00	734,400.00	108,000.00	30.00	30.00
3. Fixed costs	97,298.00	97,398.00	97,298.00	97,298.00	97,298.00	97,298.00		
4. Inland transport	50,000.00	40,000.00	40,000.00	50,000.00	1,700,000.00	200,000.00	20.00	20.00
5. Produce	259,601.00	129,162.00	317,126.00	203,940.00	614,350.00	412,700.00	250.00	180.00
6. Boxes for packing	361,974.42	61,578.49	291,493.82	246,313.95	9,910,762.00	2,990,000.00		
7. 20% wage to the exporter	166,230.28	69,057.70	172,739.23	121,824.40	2,631,362.00	781,599.60		
8. Freight	2,422,500.00	484,500.00	2,422,500.00	969,000.00	fob	fob	fob	fob
9. Total	3,419,881.70	898,846.19	3,458,936.20	1,699,946.35	15,788,172.00	4,689,597.60	3,015.00	2,945.00
10. Price per kg cif	0.82	1.42	1.10	1.50	(0.75)	(2.00)	(7.44)	(6.66)
11. Total value (US$)	4,100.00	1,420.00	5,500.00	3,000.00	127,500.00	50,000.00	7.44	6.66
12. Break even exchange rate (Ug.Shs per US$)	834.00	632.00	628.90	565.65	510.00	93.79	405.00	397.00
13. Official exchange rate	510.00	510.00	510.00	510.00	123.83	510.00	510.00	510.00
14. Parallel market (bureau) exchange rate	750.00	750.00	750.00	750.00	750.00	750.00	750.00	750.00

Notes: SFT = smoked fillet of Tilapia; SFP = smoked fillet of Nile perch. fob means that the commodity is free on board at Entebbe airport to be transported by the importer whose charges we do not know.
Source: The cost of developing exports is calculated from semi-structured interviews of exporters, October 1989 and November 1990.

Freight charges

Uganda is a land-locked country with access to external markets possible through Kenya and Tanzania or by air. From interviews of exporters of pineapples, bananas, ginger and vegetables to European markets by air, freight costs were estimated to account for 24-26% of the total c.i.f. value of a product. Table 24, row 8 containing the largest cost items, illustrates this problem.

Similar conclusions were derived on surface transport to Mombasa of the five grains: bans, maize, groundnuts, soybeans and simsim where 'transport costs were 30-47% of total export costs' (Agricultural Non-traditional Export Promotion Programme (1988) Annex C.P.3.). Therefore, freight is the second most binding constraint, after lack of data.

Immediate measures: surface transport

Informal research should immediately be undertaken to investigate the best methods to reduce the transportation costs of existing exports: what combinations of rail, track and water transport would reduce land transport to the sea, for example, and which products ought to be taken by these combinations and in what minimum optimum tonnages? For example, the newly opened Kampala to Port Bell route which loads wagons to a ferry to Kisumu, then back on rail to Mombasa, is a case to consider. A similar arrangement from Jinja combining rail and water to Mombasa saved Uganda US$20 million in 1991, equivalent to her earnings from non-traditional exports!

What is the most efficient way to collect and load the minimum-optimum tonnages from the current small-scale producers? Should such produce be collected by parastatals or the private sector?

Is there a case for government intervention to reserve fuel for exporters to ensure regular shipments of optimal tonnages? How should surface transport policies harmonize with Government's effort to rehabilitate the infrastructure? Should Uganda ask customers abroad to collect some commodities f.o.b., as is the case with cabbages, chillies, and fish, until she develops better transport. The break-even exchange rates are much lower for sales f.o.b. (see Table 24, columns 5-8).

Immediate measures: air transport

The exporters interviewed complained of the unreliability of Uganda Airlines, the national carrier. Scheduled flights are cancelled or delayed without prior warning causing losses to exporters of perishables. A revitalized Uganda Airlines, plus the likely increase in international flights in and out of Entebbe airport, with reliable schedules, should be negotiated for exporters by the government.

The transport costs problem: long-term measures

Uganda needs to consider developing qualitatively different exports from the current low priced and non processed exports. New exports should be of low-weight, and high value, to economize on transport. Horticultural products with high value need processing, dehydration, canning, etc. to reduce weight.

Processing will also enable Uganda to build up capacity for product differentiation, and to lengthen the shelf-life of the output. This would make the export sector more flexible, and the exports would move into the categories with higher income and prices elasticities of demand (indicated in Section III and V).

Collection and storage facilities

Improving storage and collection facilities should be seen as a complementary measure to reduce transport costs. In order to move a minimum optimum tonnage, there is a need for collection and storage facilities from which to load such a tonnage.

There is a general lack of collection and storage facilities for non-traditional exports, especially perishables. There is need for cold storage facilities in the producing areas and at the airport plus refrigerated trucks. In the event that a flight is delayed or cancelled, exporters need adequate facilities for cold storage at the airport. The cold room at the airport, with a maximum capacity of 25 tons and no specialized chambers for different qualities of produce, needs to be expanded and improved.

The exporters told us during the field exercise that there is a general need for collection centres in the rural areas as well so that exporters buying produce from many small scale producers can minimize collection costs. Inland transport was estimated to account for between 10-17% of the f.o.b. price.

The exporters also need central places where produce can be prepared for export. Most of the exporters end-up using their residential places for sorting and packaging, or open areas near the airport, which results in poor sorting and packing of export produce.

There is an established parastatal body, the Produce Marketing Board, charged with the marketing of grains. However, the board's storage and crop finance facilities are highly inadequate. In 1989, Uganda had a bumper crop of maize. The board failed to buy the farmers' produce resulting in heavy losses to the farmers. Most of the maize was sold at low prices to private buyers as the farmers themselves lacked storage facilities.

The government should either construct directly the storage facilities or allow exporters/private companies to construct the facilities. An appropriate fee should then be charged to users. Inland restrictions on the movement of goods should be removed to allow for the optimum use of transport and storage facilities.

Marketing

Most of the exporters interviewed sell produce through marketing agents abroad. The agents offer very low prices to exporters compared to the international prices quoted. Table 25 shows that Uganda exporters are offered prices much lower than those paid to competitors.

It may be that the quality of Uganda exports in poor: but then the other exporters indicated in Table 25 do not offer the best quality either. It is more likely that the importers take advantage of the ignorance of Ugandan exporters. There is, therefore, need for market information on a daily basis. The export promotion council and EPADU should advise exporters on market prospects before shipment. Exporters should also be trained to bargain for the best prices. There is thus need for an aggressive approach in marketing if Uganda is to enjoy higher international prices such as the average prices shown in Table 26.

Packaging

Packaging should complement the marketing effort by improving presentation and differentiation of the offers. The package by itself can make a difference to the price offered for the same contents.

Table 25 Horticulture: price comparisons in Djibouti 1990

Commodity	Offered price in Uganda by NCC (US$ per kg)	Market price in Djibouti (US$ per kg)	Supplier country	Quality compared with Uganda products
(1)	(2)	(3)	(4)	(5)
Pineapples	0.90	1.60	Kenya	good
Tomatoes	0.80	1.65	Kenya/Ethiopia	good
Bananas	0.80	1.75	Somalia	poor
Avacados	1.00	1.95	Kenya/Somalia	very poor
Capsicum	1.00	1.75	Kenya	good
Manoes	0.80	1.67	Kenya/Somalia	very poor
French beans	1.00	1.61	Kenya	poor
Pawpaw	1.20	1.67	Kenya/Somalia	poor
Oranges	1.21	1.60	Ethiopia	fairly good

Source: Market survey made in Djibouti by H. Kiryewala Mubirun of the Uganda Exporters Association, 1990.

Packaging materials available on the local market currently are poor and very expensive. For most of the export products analyzed, packaging accounted for about 20% of the f.o.b. value. One exporter informed us that the boxes used in packing tend to get torn and spoil the quality of produce.

Credit facilities and crop-finance

There is a general lack of credit for the agricultural sector. Due to the poor performance of loans to farmers and co-operative societies, there are few banks willing to extend credit for financing produce. The current interest rates are prohibitive to borrowing for purchase of produce as margins in the export business for small operators are minimal. But then exporters with limited working capital cannot expand their small consignments nor reduce operating costs.

Table 26 Average wholesale price of selected commodities, 1984-90 (US$ per kg, cif European port)

	1984	1985	1986	1987	1988	1989	July 1990	Aug 1990	Average price
Groundnuts	0.43	0.40	0.42	0.30	0.41	-	0.39	-	0.39
Honey	0.90	1.00	1.02	1.00	1.04	-	0.99	-	0.99
Sorghum	0.11	0.14	0.12	0.22	0.20	-	0.12	0.24	0.16
Ginger	2.24	1.70	1.70	2.10	2.40	2.75	2.20	2.40	2.19
Chillies	3.40	4.35	4.28	3.80	4.30	3.61	3.92	3.20	3.86
Maize	0.09	0.10	0.11	0.10	0.13	-	0.11	-	0.11
French beans	2.35	2.80	2.65	2.85	2.89	-	2.90	3.40	2.81
Soyabeans	0.20	0.30	0.32	0.30	0.43	-	0.36	-	0.32
Sesema seeds	0.28	0.32	0.33	0.30	0.38	-	0.32	-	0.32
Millet	0.08	0.35	0.30	0.32	0.38	-	0.28	0.25	0.28
Peas (cow)	0.45	0.35	0.38	0.35	0.36	-			
Passion fruits	2.80	3.04	3.00	3.02	3.10	3.91	3.20	3.20	3.16
Papaya	3.40	3.14	3.00	3.00	2.20	2.84	3.10	-	3.05
Pineapples	0.84	1.45	1.42	1.41	1.70	1.70	1.45	1.60	1.45
Avadados	1.40	2.48	2.43	2.43	2.48	2.07	2.40	3.80	2.44
Mangos	2.80	2.54	2.58	2.52	2.60	2.05	2.55	3.00	2.59
Okra	2.50	2.80	3.84	4.36	4.42	3.98	3.72	4.50	3.77
Turmeric	2.04	2.10	2.00	2.10	2.25	-	2.20	-	2.12

cont ...

Table 26 cont ...

	1984	1985	1986	1987	1988	1989	July 1990	Aug 1990	Average price
Dry cassava	0.43	0.35	0.38	0.35	0.32	-	0.27	-	0.35
Sunflower	0.40	0.30	0.32	0.35	0.32	-	0.35	-	0.34
Garlic	5.30	5.20	5.20	5.00	4.60	-	4.06	-	4.34
Sweet potatoes	0.82	1.21	1.20	1.20	1.13	1.51	1.20	-	1.38
Aubergine	1.20	1.22	1.24	1.20	1.34	-	1.24	-	1.24
Vanilla	0.55	0.60	0.60	0.55	0.62	-	0.50	-	0.57
Bananas (bogoya)	3.63	3.53	3.20	2.90	2.87	3.20	3.24	1.60	3.03
Beans (s/colour)	0.55	0.58	0.56	0.59	-	-	0.58	-	0.58
Simsim	0.80	0.83	0.87	0.86	0.60	-	0.85	0.66	0.82
Bananas	2.00	2.08	2.10	2.20	0.90	-	2.11	3.00	2.23
Jack fruit	1.30	1.32	1.28	1.32	2.15	-	1.32	-	1.31
Bees wax	3.30	3.10	3.40	3.50	1.30	-	3.38	-	3.36
Melons	1.50	-	-	-	3.50	1.51	1.50	2.20	1.68
Guavas	-	-	-	-	-	3.67	3.67	3.50	3.61
Plantains	-	-	-	-	-	1.75	1.75	-	1.75
Yams	-	-	-	-	-	1.95	-	-	1.95
Lime	-	-	-	-	-	2.40	-	-	2.40
Asparagus	-	-	-	-	-	4.36	4.35	-	4.36

Notes: The prices above are the prices offered to commodities from East Africa. The above prices are just average wholesale prices.
Source: Uganda Export Promotion Council.

Measures to improve production

Packages of incentives are desirable to encourage an increase in the production of exports. But our general view, and that in the literature, is that such incentives should be carefully designed according to dynamic comparative advantage. Data is needed to calculate costs and benefits of these incentives: they should not be rushed into.

Ugandans are high cost-producers and the exchange rate required to make exports viable, in Table 24 is very high. Measures to increase productivity and reduce costs, therefore, need to be carefully designed.

Footnotes

1. Excellent reviews of the economic policies of this period are given by Commonwealth Secretariat (1979); International Development Research Centre (IDRC) (1987); International Bank for Reconstruction and Development, Industrial Development and Finance Division, Eastern and Southern African Project Department (1986). Although the 1970s are usually blamed for all the economic decline, the process started in 1968 when measures to nationalize the commanding heights of the economy began. See Obote (1970).

2. In a more recent survey of 60 enterprises, including parastatals, the shortage of working capital persists. Only two enterprises did not cite working capital as a serious constraint: these two are either supported by external credit (Uganda Posts and Telecommunications) or outright donor grant (The Dairy Corporation). Republic of Uganda and the World Bank, *Financial Sector Study Kampala,* Development Consultants International, 27 April 1990.

3. Uganda in particular, and Africa in general, are being displaced by new LDC competitors in the international market, especially from Asia. Africa's share, even in those commodities in which she had comparative advantages in the 1960s is declining. Svedberg, P., 1987, *The Export Performance of Sub-Saharan Africa,* World Institute of Economic Research, United Nations University, Helsinki, Finland.

4. A general case for exports diversification could not be made from the studies on cyclical fluctuations because the instability in earnings depended on the income and price elasticities of demand, and the price elasticities of supply, of the specific commodity. Earnings from coffee, rubber, and cocoa, for example, were more unstable than those from petroleum, bananas, sugar and tobacco.

Second, the foreign trade multiplier which forms the transmission mechanism of instability in exports earnings to the domestic economy, was found to be small.

5. The different forms of non-tariff barriers are documented in Salvatore (1983) and IMF (1987b). The non-tariff barriers faced by horticultural exports to the EEC are discussed by Islam (1989)

6. Equation (6) assumes that εy and εp are already estimated in the usual way using the first and second terms in equation (2).

7. A definition of 'growth elasticities' is given by Chenery, H.B., 1960, 'Patterns of Industrial Growth', *American Economics Review* vol. 50. The growth elasticity is a product term. The income-elasticity of demand depends on the shape of the Engle curve while the annual rate of increase in income determines the speed at which the Engle curve is shifting out to the right. Similarly, the price elasticity of excess demand depends on the shape of the excess demand curve while the annual rate of change of the relative price determines the speed at which the excess demand curve shifts out to the right.

8. An illustration of how to derive the supply function similar to that in Equation (8) from the constant — elasticity of substitutions production function, is given in Ssemogerere, G. (1990) *Structural Adjustment Programmes and the Coffee Sector in Uganda, 1981-1987* African Economic Research Consortium working paper, Nairobi, Kenya, Appendices B and D.

9. There is a reaction in the literature against large models which complicate computation, yet yield results from which it is difficult to interpret causality. See Stern, 1989 and Weiss, 1990, 'Theoretical Foundations of Development Planning under Changing Global Economic conditions', *Economics*, Vol. 41.

10. The literature on multinationals in UNCTC (1990) articulates this point as what really matters for the political environment to attract investment, both local and foreign.

11. See IMF (1987b). The importance of maintaining flexibility to adjust to whatever external shocks and internal problems that might arise is again stressed by Weiss (1990).

12. The problems of reducing regional economic restrictions were already demonstrated when the East African Community broke up in 1974, as indicated in Section II. The same difficulties are holding up trade liberalization in the PTA.

13. Such examples are cited in the literature, especially Schapiro (1986) in the cases of Kenya where Exporter Associations, both large-scale and small-scale for outgrowers, have worked closely with government to continuously educate exporters. The Uganda Manufactures Associations, the Chamber of Commerce, and the Horticultural Growers and Exporters Associations, should be encouraged to overcome their internal organizational problems so that they can also educate exporters.

14. A bleak assessment of the prospects for direct foreign investment into African in the 1990s, and some practical policy suggestions, is given by Cockcraft and Riddell (1990).

15. Such haphazard incentives are cautioned against in the literature, for example Schapiro (1986) and UNCTC (1990). New programmes on capacity building, and assistance on multinationals, cited in UNCTC (1990) should be utilized by Uganda to carefully put together her export development programme, identify bottlenecks that need foreign investment and use the United nations machinery to attract such investment.

16. The literature on aid shows that its value over the last 15 years has been greatly reduced because of tying. See Stern (1989).

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