EAST AFRICAN STUDIES No. 34

agricultural export development

YOERI KYESIMIRA

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It is now widely accepted that the agricultural sector is of crucial importance in the economic development of East Africa. For the foreseeable future agriculture will be the only source of income for the majority of the population. Any plans to improve the living standards of the masses must therefore concern themselves with increasing agricultural productivity. In this radical study Yoqri Kyesimira brilliantly documents the key role agricultural export development can play in capital formation in East Africa. He also shows that 12 major agricultural commodities constitute about 80% of East Africa's total value of exports and concludes that there is an absolute necessity for the East African governments to adopt a strategy of diversifying the range of agricultural exports.

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YOERI KYESIMIRA

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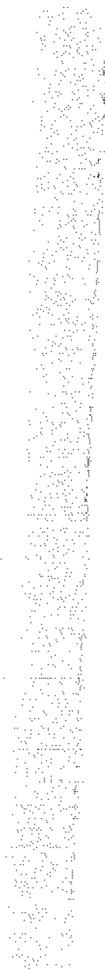

AGRICULTURAL EXPORT DEVELOPMENT

YOERI KYESIMIRA

Published for the
Makerere Institute of Social Research

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For my wife

Estella

NOTE

The Pound referred to in this study is the East African Pound, and is equivalent to $2.80. It used to be at par with the British Pound before devaluation of the latter in November, 1967.

In 1964 the Republic of Tanzania was formed as a result of a union between Tanganyika and Zanzibar. Statistics in this study refer to Mainland Tanzania only, and, in order to avoid confusion, I have used the term Tanganyika in all references to Mainland Tanzania.

PREFACE

Due to various unforeseen circumstances the gestation period of this study has been longer than was anticipated in 1965. A study of this kind benefits greatly from every new report or statistic published on agriculture, and the temptation to incorporate such material necessarily delays publication. But at some stage the advantages of sounding up-to-date must be balanced against the disadvantages arising from the fact that some of the original statements may have become out-dated with the passage of time. One must also think of the opportunity cost of revising an existing study in terms of the returns to be obtained from embarking on an entirely new one. These factors have influenced the timing of this publication.

I embarked on this study when I was a Research Fellow at the East African Institute of Social Research (now the Makerere Institute of Social Research). I benefited greatly from my membership of the Economic Development Research Project, and I would like to record my gratitude for the contribution members of that group made to the formulation of this study. Special mention should be made of Professor Paul G. Clark who, as Director of the Economic Development Research Project, stimulated my interest in the problems discussed in this study, and later gave his time ungrudgingly in reading over earlier drafts of the study. Professor W. T. Newlyn and Mr. Deryke Belshaw read later drafts of the study and made extremely useful suggestions. I am of course responsible for any remaining shortcomings.

Lastly, I wish to express my gratitude to my wife, Estella, whose loneliness after a serious operation in 1966 was part of the price paid in the revision of various drafts of this study. Her constant enquiries about the state of 'the monograph' has done a lot to shake me out of inaction. This book is dedicated to her.

Department of Economics
Makerere University College
July, 1968

Yoeri Kyesimira

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INTRODUCTION AND SUMMARY

It is now a widely held hypothesis that whatever structural changes could be envisaged for the economies of East Africa the development of the agricultural sector will be of crucial importance in determining the overall development of these economies. For one thing the ability to carry through these contemplated changes—namely industrialising the economy—will itself be dependent, in large part, on the rate at which the agricultural sector progresses. The commonly observed phenomenon that as development proceeds the contribution of the agricultural sector to national income tends to fall does not arise from the stagnation of this sector: the structural change is largely explained by the fact that other sectors have a higher rate of growth than agriculture. The sheer size of agriculture in the economy at lower levels of development would indicate that its stagnation would virtually mean stagnation for the whole economy. Moreover, in the short run, agriculture is also the chief source of income for the majority of the population, so that short- and medium-term schemes to improve the living standards of the masses will have to concern themselves with improving productivity in this sector. In this study only one aspect of this sector—namely agricultural exports—is treated.

The importance of agricultural exports in the economies of East Africa is examined in the next chapter under three broad headings. Twelve major agricultural commodities exported from East Africa are taken to represent agricultural exports, and their contribution to the total value of exports is the first thing to be examined. It is found that these twelve commodities constitute about 80 per cent of East Africa's total value of exports, and that their importance since 1949 has not, in this respect, fallen. Uganda is found to be the most dependent of the three countries on the export of these commodities, while Tanganyika is the least dependent of the three*. Over the whole period 1949 to 1966, Tanganyika has somewhat decreased her dependence on these commodities whereas Kenya has become more dependent on their export.

* Tanganyika exports significant quantities of minerals, mainly diamonds.

The second aspect of agricultural exports examined in Chapter 2 is their contribution to capital formation in East Africa. No direct link of any significance can be found between the level of public capital formation and agricultural exports in Kenya and Tanganyika, but in Uganda this link has been strong because of the more extensive use of export taxes to finance projects in the public sector and because resort has been had to funds accumulated in the price assistance funds, for financing capital projects and aiding certain groups in the economy in their development efforts. For lack of reliable statistics the direct contribution of agricultural exports to capital formation in the private sector is not examined, but some *a priori* evidence is adduced to support the view that its contribution must be considerable.

Agricultural exports also contribute indirectly to private capital formation because they affect levels of income in East Africa. This is the portion of investment which is induced because of farmers' consumption expenditure as a result of rising incomes from the sale of their crops abroad. In particular a large proportion of this investment will be undertaken in non-agricultural activities, such as light consumer goods industries, and to this extent agricultural exports affect the pace of industrialisation in East Africa. Because of the great emphasis in all East African plans on industrialisation this latter aspect of agricultural exports is crucial for the purposes of achieving structural change in these economies. Accordingly, the third heading under which agricultural exports are discussed in Chapter 2 is their importance in determining the level of demand for non-agricultural output.

The third chapter discusses the trends in agricultural exports for the whole period 1949 to 1966. In many respects this is a very interesting period because it covers the period before the Korean War boom, but carries the story through the time when prices dropped significantly from their high level after the boom to a time when they have been very low indeed. This fall in prices greatly reduced the value of agricultural exports in spite of the remarkable increases in volume achieved between 1949 and 1962/63. These price declines hit Uganda's exports hardest, mainly because of the restricted range of her exports; but also because the increase in volume of her agricultural exports was the lowest of the three countries. This combination of factors gave rise to a considerably larger fall in the value of her total exports, until the upsurge of 1963, than in the other two countries.

Chapter 4 combines the analysis of the foregoing chapters with that of official publications, particularly those of the Food and Agriculture Organization of the United Nations, to give some qualified indications of the future course of prices for certain commodities considered a "good bet" for East Africa. The inherent difficulties of projecting prices in the future apart, one obstacle to this approach has to be recognised. This is that individual countries in East Africa may do well for themselves by picking those commodities whose future price outlook seems promising, but if most of the other countries follow suit then the market outlook would turn out to be gloomy. The example of tea is pointed out. But in a world where many countries are producing the same commodity with little reference to each other, it is not surprising that such a situation should arise. This, however, points to the need for using more extensively world market price intelligence and for cooperation between primary producing countries.

This is, in fact, the subject of the last chapter which discusses the strategy which should be employed in maintaining and expanding the level of export earnings. Some of the measures are national, and are characterised under two headings. These are firstly, the necessity of increasing the volume of exports, and secondly the need for some form of diversification of agricultural exports. The first strategy ensures that, given an unchanged level of prices, export earnings can be increased by increasing volume; alternatively, that in the face of falling prices, export earnings can be maintained and perhaps even increased if increases in volume of exports more than offset the effect of falling prices. The second strategy is intended to reduce the risk of price declines by diversifying the range of agricultural exports. International measures touched on in this study are those relating to international commodity agreements and compensation schemes.

2

THE IMPORTANCE OF AGRICULTURAL EXPORTS IN EAST AFRICA

The contribution of agriculture to economic development has been analysed under five major headings by Bruce F. Johnston and John W. Mellor[1]. They stated that agriculture acts as a source of food; it acts as a source of labour for the non-farm sector; it provides foreign exchange; it provides capital; and lastly it provides a market for the commodities of the non-farm sector. The first two contributions of agriculture to development do not directly concern agricultural exports: except that if a country could increase very fast the export of a non-food crop in which it has got a substantial comparative economic advantage it could thereby purchase food and labour from outside, thus making these scarce commodities available to the economy. However, the importance of agricultural exports to the East African economies does not lie in this direction, and their importance in this chapter will be discussed mainly in relation to the last three functions.

I Agricultural exports as a source of foreign exchange

From the standpoint of economic planning and development the importance of export earnings is that imports of capital equipment required for development are dependent on the total value of exports, in the absence of large foreign exchange reserves or foreign aid. In these circumstances a shortage of foreign exchange arising out of a fall in export proceeds would force a developing country to adopt measures which are designed to preserve foreign exchange by restricting imports of those consumer goods which are considered luxuries: failure to make such a bold move would most certainly compromise the development effort. It becomes important, therefore, to analyse very carefully the constituent elements of which total exports are composed. The present section discusses the contribution of agricultural exports to the export earnings of East Africa.

For the purposes of this exercise twelve major crops were selected to represent agricultural exports. These were chosen either because

they represented large export values, such as sisal in Kenya and Tanganyika or coffee in Uganda and Kenya; or those which showed promise of becoming important exports in the near future as a way of diversifying East Africa's exports. Statistics were then compiled to show: (1) the average value of each of these commodities for the period 1960-62; (2) the importance of each commodity in the export earnings of East Africa as a whole (Table II:4); and (3) the importance of each of these commodities in the exports of each country was calculated, and the results are shown in Table II. 5. The crops selected were: cotton, sisal, arabica coffee, robusta coffee, tea, meat and meat preparations, hides and skins, pyrethrum (flowers lumped together with extract), cashew nuts, groundnuts (peanuts), wattle bark and extract, and unmilled maize. Unless otherwise stated the term agricultural exports in this study will be used to refer to only these twelve commodities.

Before looking at the figures it should be made clear that in all cases exports relate to exports to countries outside East Africa from each country and to the sum of these for East Africa as a whole. Inter-country exports within East Africa are thus excluded. The figures also exclude re-exports. With the exception of maize in certain years, and animal products, neither exclusion is significant.

From Table II.4 it is clear that more than three-quarters of East Africa's exports was contributed by these twelve commodities for the period under consideration. The dependence of developing countries on the export of agricultural commodities is only too familiar, and in this respect East Africa is no exception. As a matter of fact there are really three crops on which East Africa is heavily dependent: namely, cotton, sisal and coffee (if we combine robusta and arabica coffee together). These three crops contribute nearly 60 per cent to East Africa's total exports, with both types of coffee contributing 27 per cent, cotton 17 per cent and sisal 15.3 per cent. These are the crops which are extremely vital to East Africa's export trade; the remaining eight crops contribute only 19.4 per cent to total exports, although products such as tea, meat and cashew nuts might become more important in the future.

Another way of looking at agriculture's contribution to exports is to compare the total value of exports with East Africa's exports in classes 0, 1, 2 and 4 of the Standard International Trade classification. These are the classes under which trade in food, beverages and tobacco, inedible crude materials, except fuels, and animal and vegetable oils and fats are recorded. The relevant figures are

given in Table II.6. As far as East Africa is concerned, they reveal that over the period 1954-64 the contribution of these four classes to total exports has at no time been less than 85 per cent: in fact in the earlier years their contribution was over 90 per cent, and has fluctuated between this figure and 85 per cent. Exports in classes 1 and 4 are, however, insignificant compared to classes 0 and 2 which include all food and "crude materials, inedible, except fuels". These last two are the ones which are dominant in this classification as they include all coffee, tea, cotton and sisal, the major exports from East Africa.

Within East Africa dependence on the export of these commodities differs somewhat as between the three countries (Table II.5). Uganda happens to be the most dependent on the export of these products: during the Korean War boom their share in total exports rose to 93 per cent, and even in 1964 they contributed as much as 85 per cent to the total value of her exports. For Uganda the only significant export not included in this list is copper alloys, which in 1964 fetched £6.2 million.

Kenya is less dependent on the export of these commodities than Uganda. Her lesser dependence on the export of these commodities is not particularly that she exports more non-agricultural commodities than Uganda: examination of Table II.6 will show that there is very little difference between the three countries with regard to the share in total exports of commodities in the S.I.T.C. groups 0, 1, 2 and 4. Such differences as do exist (Uganda being more dependent on the export of commodities in these classes, than Kenya or Tanzania) are not as big as those shown in Table II.5; as a matter of fact Kenya's biggest non-agricultural export has usually been sodium carbonate (soda ash) whose value at less than £1.5 million has been a poor match for Uganda's copper alloys even before the more recent rise in copper exports. The real difference between Kenya and Uganda which accounts for Kenya's lower dependence on our twelve agricultural exports is that Kenya exports more of the other agricultural commodities which are not included in this group. Thus in 1961 her exports of butter were valued at about £½ million, and in addition she exported sizeable quantities of preserved fruits, vegetables, edible nuts and eggs. In this respect Kenya's exports are much more diversified than those of her neighbours, and evidence will be offered below to show that even with regard to the twelve exports selected, hers is a less concentrated range of agricultural exports.

Tanganyika is the least dependent of the three countries on the export of commodities in the S.I.T.C. groups 0, 1, 2 and 4, although by any standards her dependence is also high. The explanation is to be found in her substantial exports of minerals, dominated by diamonds, which have risen considerably in total value since 1949; these have risen from £1.6 million in 1949 to nearly £8 million in 1964.

A more detailed examination of export figures in Table II.5 reveals that the relative importance of the twelve commodities differs widely as between countries, and that individual countries share the same characteristics with many developing countries of depending on only a few commodities as a source of their foreign exchange earnings. Thus for Uganda coffee and cotton are the key exports, and on the average contributed 76.7 per cent to the value of total exports over this period. In fact in 1964 robusta coffee alone was responsible for nearly half (49.6 per cent) of the value of all domestic exports, and both arabica and robusta coffee brought in 54.9 per cent of the export proceeds earned. No single commodity dominates the exports of the other two countries to the same extent, but in Tanganyika sisal is extremely important (constituting 29 per cent of total exports over this period), and arabica coffee has lately assumed a similar position in Kenya's exports (28.8 per cent). Taking the three most valuable export crops in each country, we have the following picture with regard to their contribution to total exports.

Table II.1

Contribution to total exports by crop

	CROP		*Value as % of Total Exports (1960-2 average)*
Kenya			
	Arabica Coffee	..	28.8
	Tea	..	12.5
	Sisal	..	12.1
		Total	53.4
Uganda			
	Robusta Coffee	..	36.9
	Cotton	..	33.7
	Arabica Coffee	..	6.1
		Total	76.7

CROP	*Value as % of Total Exports* (1960-2 *average*)
Tanganyika	
Sisal	29.0
Cotton	14.9
Arabica Coffee	12.3
Total	56.2

A further attempt has been made to portray the comparative degrees of diversification in East Africa by fitting a Lorenz curve to the data in Table II.5. The results are shown in chart II.1. As would be expected, East Africa's agricultural exports are more highly diversified than those for individual countries. The major reason for this is simply that East Africa is a much wider region and so offers a more diversified range of ecological zones than any individual country. Next comes Kenya whose degree of diversification is, however, not really far ahead of Tanganyika, whereas Uganda's agricultural exports are by far the least diversified.*

For East Africa as a region 80 per cent of her export earnings derive from the export of these twelve major crops, and this percentage has not shown any tendency to fall since 1949. In 1949 these twelve exports constituted 82 per cent of the total value of exports; they reached a peak in 1951 during the Korean War boom for agricultural products when their share in total exports rose to 87 per cent, and were around 80 per cent in 1962/3 (Table II.7). Of course the importance of individual items in this broad classification has altered: for instance Kenya has decreased her dependence on sisal, and has instead become more dependent on arabica coffee. However, the persistence of high dependence on these twelve commodities gives credence to the view that East Africa's dependence on agricultural exports is bound to continue in the future for a considerable length of time. In fact suggestions have already been made that a vigorous policy of industrialisation is unlikely to alter substantially the composition of East Africa's exports, and that a better strategy for East Africa would be to base industrialisation policy on import

* Since objectives of diversification usually run counter to those for short-term profitability, it cannot be inferred from these observations that Uganda has been the loser for having had a less diversified combination of agricultural exports without further examination.

substitution. Dr. Brian Van Arkadie has this to say about the prospects for export promotion in relation to industrialisation in East Africa: "The export promotion possibilities set out above are at best marginal and at worst risky and problematical. It seems that the main export effort for the coming few years must take the form of increasing the quantity and widening the range of agricultural exports. Therefore the main conclusion of this paper is that for the coming decade import substitution is the preferable strategy for industrialisation, and that there will be only a small role for export promotion of manufactured products."[2*]

Within East Africa the changes in the degree of dependence on these crops over time differs as between the three countries. Uganda, the most dependent of the three countries on the export of these products, gained most from the Korean War boom; their share in her total exports rose to 93 per cent, and even in 1964 they contributed as much as 85 per cent to the total value of her exports. For Uganda the only important export not included in this list is copper alloys which in 1964 were valued at £6.2 million, but their rapid rise in value over the last few years has not greatly affected the share of agricultural exports in total exports because these too have been rising.

Although Kenya is slightly less dependent on these commodities than Uganda, her dependence on them has been rising since the early fifties rather than falling. In the early fifties the share of these exports in total exports was around 77 per cent but began to rise after 1954 to just over 80 per cent and ended this period at an average of 78 per cent. As will be shown in Chapter III this phenomenon is associated with the rapid increase in Kenya's export of arabica coffee; in 1949 the value of her coffee exports was a mere £1½ million, but had risen to £15 million by 1964, and had assumed first place as the most valuable export from Kenya in 1952.

Tanganyika, the least dependent of the three on the export of these commodities, has been decreasing her dependence on these exports, though the decline is not dramatic. In the earlier years these commodities were contributing around 80 per cent to her exports, but since 1954 this percentage has been falling, and was 72 in 1961; the rapid rise in sisal prices in 1963, however, again

[*] Export prospects for manufactured products may not look as gloomy as this on another set of assumptions: namely if there is greater co-operation between the developing countries themselves, especially those of tropical Africa and the Indian Ocean region. This possibility is discussed in.[3]

jerked it up to 76. Reference has already been made to the importance of mineral exports to Tanganyika. In effect a fall in the contribution of agricultural exports to her exports should be interpreted as indicating a faster increase in the value of non-agricultural exports rather than that her agricultural exports had been stagnating: as will be shown in Chapter III the total value of her exports has been rising faster than that for Uganda.

2 Agricultural exports as a source of capital

The contribution of agricultural exports to capital formation is two-fold. The most direct contribution is when funds used to finance capital projects are obtained, in one form or another, from agricultural exports proceeds. This is the subject of the present section. The second way in which agricultural exports contribute to capital formation is indirect: because of their effect on the level of effective demand, agricultural exports affect the level of capital formation in East Africa. This aspect will be discussed in the next section.

Capital formation is undertaken either by the public sector or by private entrepreneurs. The extent of the contribution of agricultural exports to both forms of capital formation is very difficult to quantify in East Africa except in the case of Uganda with respect to the public sector. In Uganda the main forms of diverting earnings from agricultural exports to finance public development projects has been effected through the operation of marketing board surpluses and export taxes.

Table II.2
SOURCES OF DEVELOPMENT FUNDS IN UGANDA 1945-60 (£'000)

From *To*	*Reserve Fund for P.W.D.*	*The 4 1948 Funds*	*African Dev. Fund*	*Capital Dev. Fund*	*Local Inv. Fund*	*Total*
Wartime Accumulation	703	—	—	—	—	703
Cotton P.A.F.						
(*a*) grants	—	6,000	18,200	—	—	24,200
(*b*) loans	—	—	—	5,000	—	5,000
Coffee P.A.F.						
General	—	625	—	—	—	625
Revenue Balance . .	—	—	—	178	7,899	8,077
TOTAL	703	6,625	18,200	5,178	7,899	38,580

Source: D.A. Lury: "Cotton and Coffee Growers and Government Development Finance in Uganda 1945-60", *East African Economic Review*, Vol. 10, No. 1, June 1963, p. 51.

In Table II.2 showing sources of development funds for the period 1945-60, it will be found that Price Assistance Funds have contributed more than three-quarters of development expenditure. Most of this money has come from the Cotton Price Assistance Fund in the form of grants and has largely been used for the expansion of education, and to a lesser extent, health facilities. In the late fifties £5 million was also made available in the form of a loan for the construction of roads and buildings from the same fund.

Further, another £19.3 million was earmarked for development projects from export taxes on cotton and coffee over this period: cotton export tax provided £12.3 million while that on coffee yielded £7.0 million. These monies were paid into a capital development fund as a result of a decision in 1954/5 that any excess revenue over £4 million from export taxes should be paid into that fund. This means that £4 million was made available for development purposes as a result of transferring money from the Price Assistance Funds and taxing cotton and coffee exports.*

It should be added that this was not the only way cotton and coffee exports contributed to government spending in Uganda. Over this period, the revenue collected from cotton exports to finance recurrent government expenditure amounted to £31.2 million (representing 23.1 per cent of payments to growers), and the yield from coffee export tax for the same purpose was of the order of £17.7 million (or 18.3 per cent of payments to growers).** Since the distinction between development and recurrent expenditure is hard to draw, it is apparent that most of this revenue must have had a developmental effect on the Uganda economy; after all, development expenditure was undertaken on the understanding that the future recurrent expenditure would have to be borne by the recurrent budget. The contribution of export taxes to total revenue can be seen from Table II.8B. This table shows that between 1949 and 1958 export taxes were the most important source of government revenue in Uganda, and that from 1950 to 1952 they formed more than half the total tax revenue.

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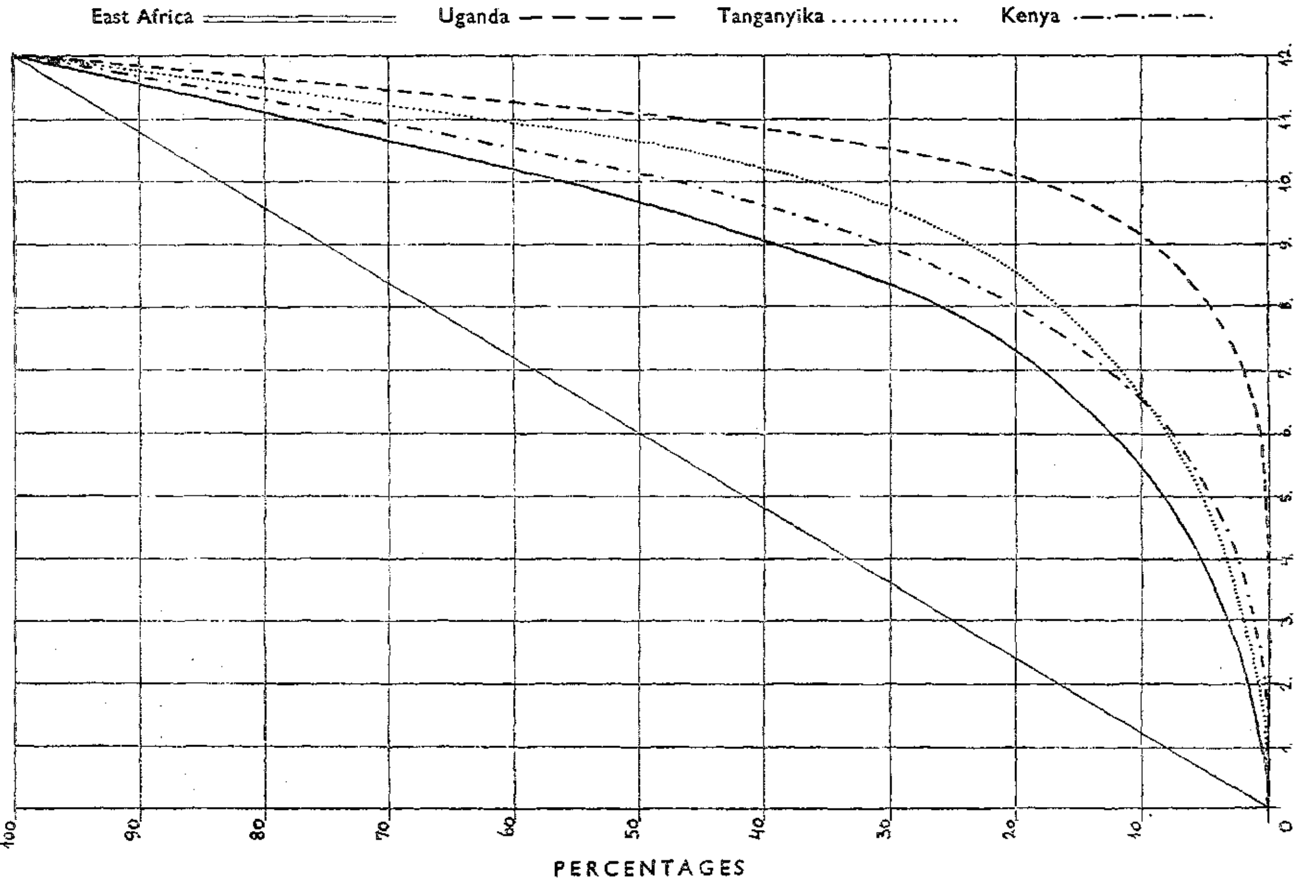
* For a critical appraisal of this policy see David Walker and Cyril Ehrlich, "Stabilisation and Development Policy in Uganda. An Appraisal", *Kyklos* 12 (1959), pp.341-53; Reproduced in Philip W. Bell and Katharine H. Bell (Eds.), *African Economic Problems*, Vol. IV, Oxford University Press, Nairobi, 1965.

** The source for these figures is the same as that for the table above.

CHART II.I Lorenz Curve showing concentration of East Africa's agricultural exports



It is not possible to find a direct link between agricultural export proceeds and the level of public investment in the other two countries. In financing their development projects Kenya and Tanganyika have depended more on foreign sources of funds than Uganda as the table below will show. Whether or not it was a good policy in the long run for the Uganda Government to tap these export proceeds the way they did, the fact remains that Uganda attained her independence with a much lower public debt and larger external assets than her East African neighbours, and this can be attributed to the contribution which agricultural exports have made to public investment in this country.

Table II.3

SOURCES OF FINANCE FOR DEVELOPMENT PLANS (in £'000)

	Total	*C. D. & W.*	*Loan*	*Local Resources*
Kenya	42,450	3,500	23,450	15,500
Tanganyika	24,450	5,349	10,000	9,101
Uganda	28,500	2,500	2,000	24,000

Source: *The Colonial Territories* 1953-4, (H.M.S.O. Cmd. 9619) 1954, Appendix III and cited in the *East Africa Royal Commission Report*, (H.M.S.O. Cmd. 9475) 1955, p. 95.

see page 21.

In the private sector agricultural exports can contribute to capital formation if the recipients of these incomes decide not to use them for current consumption, but they either plough them back into their own business, use them in some other business venture, or lend them to some other set of entrepreneurs who would invest them. In Kenya and Tanganyika where large estates operate it would be possible to find out how much of their current income they plough back into their farming business and how much they decide to invest in other ventures. For instance C. W. Guillebaud has produced figures relating to the sisal industry of Tanganyika and found that a sample of ten sisal companies had invested 27 per cent of their profits in their estates between 1951 and 1956. In absolute terms, this was the equivalent of £2½ million for the entire period, and was made possible because of the high prices of sisal in the early 50's.[4] Similarly in Kenya, and in other plantation industries in Tanganyika, expansion of existing estates and the construction of processing capacity have been financed out of current earnings in periods of rising prices for agricultural exports, except that in Kenya political events of the last few years have

adversely affected the willingness of the European community to invest in the improvement and expansion of their farms.

In Uganda by far the largest proportion of agricultural exports is produced by peasant farmers about whose economic transactions we as yet know very little. The fact that coffee acreages have expanded so fast over the last few years must be evidence of considerable investment by the peasant farmer in his farms, but there are no reliable estimates of the size of this investment; and the existing series of crop acreage statistics are mere estimates which are subject to a large margin of error. On the other hand the presumption that the peasant must have millions of pounds under his mattress which he could invest has persisted for some time and financial institutions have at various times sought to channel these "missing millions" into investment elsewhere without very much success. These were funds which peasant farmers are supposed to have received during boom periods but apparently have neither invested nor spent on consumption. However, the currency statistics do not support this thesis. The ratio of currency in circulation to money income is not higher than in similar economies.

3 Agricultural exports as a market for non-agriculture

One of the major obstacles to promoting industries in developing countries has been the size of their own home markets. The smallness of their home markets has dictated the setting up of plants with small capacity with the result that economies of scale are lost and this, added to the other difficulties, greatly reduces the scope for a rapid rate of industrialisation in these countries. The smallness of the home market is itself a symptom of the low levels of income, and anything that could be done to raise these incomes would be a very significant stimulant to the pace of industrialisation in East Africa. Because they constitute such a high proportion of gross domestic product agricultural exports generate the major part of domestic monetary demand and their expansion can, more than anything else, contribute to the achievement of this aim. The high propensity to consume among the African population in East Africa, while it may be a barrier to financing investment from personal savings, acts as a big inducement to business firms to put their money into consumption goods industries when incomes are rising.

Table II.9 sets out the relationship between agricultural exports

Table II.4

EAST AFRICA

AGRICULTURAL EXPORTS BY COMMODITY 1960-62

Commodity	*Average Value 1960-62* £'000	*As % Total Domestic Export* %	
Cotton	21,609	17.0	59.3%
Sisal Fibre, Flume and Tow	19,472	15.3	
Arabica Coffee	19,167	15.1	
Robusta Coffee	15,080	11.9	
Tea	7,542	5.9	
Meat and Meat Preparations	4,419	3.5	
Hides and Skins	4,309	3.4	
Pyrethrum (flowers and extract)	3,173	2.5	
Cashew Nuts	2,335	1.8	
Groundnuts	1,129	0.9	
Wattle Bark and Extract	1,103	0.9	
Maize Unmilled	698	0.5	
Total	100,036	78.7%	

Source: Annual Trade Reports.

Note: Domestic exports exclude interterritorial exports within East Africa as well as re-exports.

Table II.5

COMMODITY EXPORTS WITHIN INDIVIDUAL COUNTRIES 1960-62

Average Value 1960-62

Commodity	*KENYA* £'000	*KENYA* *As % of Total Exports*	*UGANDA* £'000	*UGANDA* *As % of Total Exports*	*TANGANYIKA* £'000	*TANGANYIKA* *As % of Total Exports*
Cotton	635	1.8	13,302	33.7	7,671	14.9
Sisal	4,360	12.1	44	0.1	15,068	29.0
Arabica Coffee	10,416	28.8	2,399	6.1	6,352	12.3
Robusta Coffee	—	—	14,564	36.9	516	1.0
Tea	4,535	12.5	1,641	4.2	1,363	2.6
Meat and Meat Preparations	2,295	6.4	5	neg.	2,118	4.1
Hides and Skins	1,568	4.3	1,046	2.6	1,695	3.3
Pyrethrum	3,088	8.5	—	—	85	0.2
Cashew Nuts	247	0.7	—	—	2,089	4.0
Groundnuts	91	0.3	479	1.2	560	1.1
Wattle Bark Extract	740	2.0	—	—	363	0.7
Maize Unmilled	398	1.1	31	0.1	269	0.5
Total:	28,373	78.5	33,511	84.9	38,149	74.0

Source: Annual Trade Reports.

Table II.6

EAST AFRICA: DOMESTIC EXPORTS IN S.I.T.C. 0, 1, 2, 4*, 1954-64

Year	KENYA £'000	KENYA % of Total Exports	UGANDA £'000	UGANDA % of Total Exports	TANGANYIKA £'000	TANGANYIKA of % Total Exports	EAST AFRICA £'000	EAST AFRICA % of Total Exports
1954	16,895	83.4	40,422	99.6	31,931	88.1	89,248	91.9
1955	21,529	83.9	41,813	99.8	31,811	87.9	95,153	91.7
1956	25,312	87.3	40,336	99.8	40,992	91.5	106,640	93.4
1957	22,426	85.1	44,071	96.1	35,237	89.6	101,734	91.1
1958	25,950	88.6	43,164	95.1	36,266	87.0	105,380	90.5
1959	29,085	87.3	39,216	93.2	39,056	86.2	107,357	89.0
1960	31,159	88.5	37,871	91.1	48,242	87.9	117,272	89.1
1961	30,455	86.2	36,132	92.2	40,664	83.6	107,251	87.1
1962	33,443	88.2	33,910	90.1	43,612	85.1	110,965	87.5
1963	39,147	89.3	47,757	92.8	56,553	89.0	143,457	90.3
1964	40,041	85.0	58,061	90.1	61,195	87.3	159,297	87.7

*For definition see page 6.

Table II.7

EAST AFRICA: TOTAL AND AGRICULTURAL EXPORTS 1949-1966

Year	KENYA (1) Total Exports	KENYA (2) Agric: Exports	KENYA (2) as % of (1)	UGANDA (1)	UGANDA (2)	UGANDA (2) as % of (1)	TANGANYIKA (1)	TANGANYIKA (2)	TANGANYIKA (2) as % of (1)	EAST AFRICA (1)*	EAST AFRICA (2)*	EAST AFRICA (2) as % of (1)
	£m	£m		£m	£m		£m	£m		£m	£m	
1949	11.0	8.3	76	23.4	20.9	89	19.2	15.6	81	53.6	44.2	82
1950	17.2	13.3	78	28.7	25.8	90	23.8	18.6	78	69.6	57.7	83
1951	24.1	18.2	76	47.2	43.7	93	39.3	33.9	86	110.6	95.9	87
1952	25.8	20.0	78	47.2	43.2	92	47.0	35.6	76	120.0	98.9	82
1953	19.5	14.9	76	33.4	29.4	88	34.5	27.0	78	87.4	71.3	81
1954	20.3	15.6	77	40.6	36.6	90	36.3	27.9	77	97.1	80.2	83
1955	25.7	21.3	83	41.9	38.7	92	36.2	26.8	74	103.8	86.8	84
1956	29.0	23.8	82	40.4	37.0	92	44.8	33.7	75	114.2	94.5	83
1957	26.4	21.4	81	45.9	41.1	90	39.3	28.2	72	111.6	90.8	81
1958	29.3	23.6	81	45.4	40.8	90	41.7	29.7	71	116.4	94.1	81
1959	33.3	26.6	80	42.1	36.3	86	45.3	32.1	71	120.7	95.1	79
1960	35.2	28.3	80	41.6	35.1	84	54.9	40.4	74	131.6	103.8	79
1961	35.3	27.7	78	39.2	33.5	85	48.7	34.8	72	123.2	96.0	78
1962	37.9	29.9	79	37.6	32.0	85	51.2	37.9	74	126.8	99.8	79
1963	43.8	34.2	78	51.5	44.8	87	63.6	48.6	76	158.9	127.6	80
1964	47.7	35.5	75	64.4	54.9	85	70.1	53.9	77	181.7	144.3	79
1965	47.2	32.6	69	62.7	51.1	81	62.8	46.5	74	172.7	129.9	75
1966	58.1	42.1	72	65.9	55.8	84	79.1	59.2	75	203.1	157.1	78

* Figures may not add up due to rounding.

Source: Annual Trade Reports of Kenya, Uganda and Tanganyika.

Table II.8a

GROWTH OF CENTRAL GOVERNMENT TAX REVENUE IN UGANDA 1948-63

£'000

	1948	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
Income Tax	400	602	661	639	1,169	1,785	2.189	2,756	3,160	3,078	3,231	3,533	3.542	3,567	3,670	3,805
Estate Tax	20	12	36	9	38	7	27	40	37	43	71	55	41	29	29	38
Poll, Education Tax Etc. ..	721	513	537	571	605	629	863	528	553	599	628	619	606	570	343	376
Total Direct Tax	1,141	1,127	1,234	1,219	1,812	2.421	3.079	3,324	3,750	3,720	3,930	4,207	4,189	4,166	4,042	3,919
Export Taxes	1,449	2,968	4,167	8,106	8,269	4,045	6.626	5,808	6,166	6,256	5,662	4,985	3,302	2,175	2,543	5,837
(Coffee Export Tax)	339	295	1,158	2,107	1,776	1,405	2,632	2,576	3,567	3,073	3,283	2,465	1,074	472	1,070	3,870
(Cotton Export Tax)	1,106	2,668	2,977	5,907	6.442	2,601	3,936	3,144	3,574	3,193	2,399	2,477	2,177	1,649	1,430	1,930
Import Duties	1,565	1,761	2,080	2,888	2,995	3,308	3,776	4,260	4,222	4,128	4,643	5,340	5,914	6,307	7,706	9,019
Excise Taxes	489	663	635	973	923	997	1,426	1,629	2,055	2,525	2,473	2,285	2,423	2,675	2,959	3,442
Licences Etc.	180	199	228	239	261	336	419	416	418	480	613	709	647	654	897	947
Total Indirect Taxes	3,685	5,591	7,110	12,206	12.448	8,686	12.747	12,113	12,861	13,387	13,391	13,319	12,286	11,811	14,105	19,245
Total Tax Revenue	4,824	6,718	8.344	13.425	14.260	11,107	15,326	15,437	16,611	17,107	17,321	17,526	16,475	15,977	18,147	26,164

Source: Tables II.5A and II.5B are taken from: Dharam P. Ghai. *Taxation for Development*, (East African Publishing House, 1966), pp. 24-25.

Table II.8b

PERCENTAGES OF VARIOUS TAXES IN TOTAL TAX REVENUE: UGANDA, 1948-63

Item	*1948*	*1949*	*1950*	*1951*	*1952*	*1953*	*1954*	*1955*	*1956*	*1957*	*1958*	*1959*	*1960*	*1961*	*1962*	*1963*
Income Tax	8.3	9.0	7.9	4.8	8.2	16.1	14.3	17.8	19.0	18.0	18.7	20.2	21.5	22.3	20.2	16.4
Estate Duty	0.4	0.2	0.5	0.07	0.3	0.06	0.2	0.3	0.2	0.2	0.4	0.3	0.2	0.2	0.2	0.1
Poll, Education Tax Etc. ..	14.9	7.6	6.4	4.2	4.2	5.7	5.6	3.4	3.3	3.5	3.6	3.5	3.7	3.6	1.9	0.3
Total Direct Tax	23.6	16.8	14.8	9.07	12.7	21.86	20.1	21.5	22.5	21.7	22.7	24.0	25.4	26.1	22.3	16.9
Export Taxes	30.0	44.2	50.0	60.4	58.0	36.4	43.2	37.6	37.1	36.6	32.7	28.4	20.0	13.6	14.0	25.2
(Coffee Export Tax)	7.0	4.4	13.9	15.7	12.5	12.6	17.2	16.7	15.5	18.0	19.0	14.1	6.5	3.0	5.9	16.7
(Cotton Export Tax)	22.9	39.7	35.7	44.0	45.2	23.4	25.7	20.4	21.5	18.6	13.9	14.1	13.2	10.3	7.9	8.3
Import Duties	32.5	26.2	24.9	21.5	21.0	29.8	24.6	27.6	25.4	24.1	26.8	30.5	35.9	39.5	42.5	38.9
Excise Taxes	10.2	9.9	7.6	7.3	6.5	9.0	9.3	10.6	12.4	14.7	14.3	13.0	14.7	16.7	16.3	14.9
Licences Etc.	3.7	3.0	2.7	1.8	1.8	3.0	2.7	2.7	2.5	2.8	3.5	4.1	3.9	4.1	4.9	4.1
Total Indirect Tax	76.4	83.3	85.2	90.95	87.3	78.2	79.8	78.5	77.4	78.2	77.3	76.0	74.5	73.9	77.7	83.1

Table II.9

AGRICULTURAL EXPORTS* AS A PERCENTAGE OF MONETARY GROSS DOMESTIC PRODUCT 1954-64

	KENYA			UGANDA			TANGANYIKA**		
Year	*(1) Monetary G.D.P. at Factor Cost* £m	*(2) Agricultural Exports* £m	*(2) as % of (1)*	*(1)* £m	*(2)* £m	*(2) as % of (1)*	*(1)* £m	*(2)* £m	*(2) as % of (1)*
1954	112.5	15.6	13.9	93.0	36.6	39.4	79.1	27.9	35.3
1955	134.7	21.3	15.8	102.3	38.7	37.8	81.8	26.8	32.8
1956	145.2	23.8	16.4	103.2	37.0	35.9	89.3	33.7	37.7
1957	154.2	21.4	13.9	109.8	41.1	37.4	92.9	28.2	30.4
1958	155.5	23.6	15.2	106.7	40.8	38.2	97.9	29.7	30.3
1959	161.8	26.6	16.4	108.3	36.3	33.5	106.2	32.1	30.2
1960	175.3	28.3	16.1	110.8	35.1	31.7	114.4	40.4	35.3
1961	176.8	27.7	15.7	111.2	33.5	30.1	115.4	34.8	30.2
1962	180.9	29.9	16.5	107.9	32.0	29.7			
1963	192.4	34.2	17.8	128.6	44.8	34.8			
1964	212.8	35.5	16.7	140.8	54.9	39.0			

Source: Statistical Abstracts, various years.

* Agricultural Exports as defined in the notes to Table II.4.

** After 1961 a different compilation of G.D.P. figures was introduced in Tanganyika which makes figures for 1962 onwards difficult to compare with those of earlier years.

and monetary gross domestic product. From this table it can be seen that Uganda and Tanganyika depend to a much greater extent than Kenya on these twelve commodities as a source of income. Uganda and Tanganyika derive nearly one-third of their monetary income from the proceeds of these commodities, and therefore for them the buoyance (or lack of it) of their economies is largely dependent on whether the total value of these commodities is rising or stagnating. It is the recognition of this relationship between industrialisation and agriculture that has made economists recommend schemes for rapid improvement in agricultural production as an aid to industrialisation: a stagnant level of agricultural exports means stagnation of the whole economy at the present level of development, and this applies equally to the industrial sector in so far as this is based on the home market. This fact is very well recognised, for instance, in the Kenya Development Plan, 1964-70, when it is stated that "this dependence on agriculture will not be significantly reduced by 1970 and hence rapid economic growth over the next six years can only be achieved if the agricultural sector expands at a healthy rate. It follows that agricultural development and supporting infra-structure investment must be accorded the highest priority in the allocation of resources during the planning period" (page 45 of the Plan).[5]

In a similar manner the Uganda Second Five-year Plan stresses agricultural production as the spearhead for development of the economy. The following quotation appears at the beginning of Chapter Four of the Plan: "For the next generation and longer, even with the maximum diversification of the economy, agriculture will remain the most important source of domestic income, foreign exchange and employment".[6]

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4. C. W. Guillebaud, *The Sisal Industry of Tanganyika*, Tanganyika Sisal Growers' Association, 1958 p. 50, Table II.
5. Kenya Government, *Development Plan 1964-70*, Government Printer, Nairobi, 1964.
6. Uganda Government, *Uganda's Second Five-Year Plan*, Government Printer, Entebbe, May 1966.

3

PAST TRENDS IN AGRICULTURAL EXPORTS: 1949/50 TO 1962/3

There are two main reasons for undertaking a study of the behaviour of agricultural exports over a long period. The first is that purely random factors affecting the value of agricultural exports are eliminated, while at the same time their disturbing influences along the trend can be isolated. It is obvious that the period for which observations are made must be long enough to enable us to separate trend factors from purely random and seasonal ones; on the other hand the period should not be so long that it includes periods which bear little relation to each other. As far as the agricultural exports of East Africa are concerned the period after the Second World War forms a distinct phase in the history of their development, different from that before the war, although there are some similarities.

In 1949 events in East Africa had come back to fairly "normal" conditions compared to those obtaining during the war. But the attitude and approach to the development of East Africa took a different turn after the war. The war had accelerated changes in the attitudes of colonial powers and in the case of Britain this change was symbolised in the setting up of the Colonial Development Corporation and more financial allocations being made to schemes under the Colonial Development and Welfare Acts.* The Colonial Administration also felt more obligations to draw up development plans for the possessions. Even if these plans were far from the comprehensive planning we know today they were a practical demonstration of a different approach, and provided the framework for a considerable volume of investment in infra-structure made

* The Colonial Development and Welfare Acts were actually passed in 1940 and 1945, and the underlying idea behind them can be traced to the Colonial Development Act of 1929. See E.A. Brett, "The Politics of British Aid Giving: The Background to the Colonial Development and Welfare Acts of 1940 and 1945" in *Problems of Foreign Aid* (Oxford University Press for the Institute of Public Administration, London and Nairobi, 1963).

possible by the very high prices for agricultural exports in the early 'fifties.

During this period the money economy spread rapidly throughout East Africa and, in Tanzania and Uganda especially, millions of peasant farmers who had previously been farming for subsistence were brought into touch with world markets through the production for sale of these few agricultural exports. In Kenya the benefits were largely confined to the expatriate population, but taking East Africa as a whole these exports have increasingly been produced by Africans.

The achievement of political independence by all three countries, a process completed in 1963 with Kenya's attainment of independence, has once again changed the context of economic activity and even increased the pressure for rapid development.

A second reason for taking a long look at our historical past is that we can thereby get some inkling of what we can possibly achieve in the future over a similar span of years. In East Africa the need to move towards comprehensive planning has not only led to the drawing up of five-year development plans but has also implied the setting of fairly long-term targets covering more than fifteen years. For instance Uganda intends to double per capita income in the money sector within the next fifteen years, while Tanganyika plans on more than doubling her per capita income between 1964 and 1980, and raising average life expectation at birth from 35-40 years to 50. If expected changes in key parameters are given, such as the propensity to save, the capital-output ratio etc. a study of historical trends will give us a method of testing the feasibility of attaining new plan targets. In fact since planning is a two-way traffic, realistic targets can only be set in the light of what has been happening in the economy. For example, the fact that Kenya and Tanganyika have been increasing the quantity of their agricultural exports at an average rate of about 7 per cent per annum must be taken into account in setting targets for the agricultural export sector; and because of the interdependence of the export sector and other sectors of the economy and the predominance of agriculture, this rate of increase will influence the rate of growth of income that can be expected in the future.

This period is also interesting to study because of the movement of agricultural prices which have obtained. Starting with fairly low prices in 1949, there was a period of extremely high prices following the outbreak of the Korean War. Thus 1951 and 1952

were years of very high prices for agricultural products and these boom conditions hovered on until 1958, although there was some marked decline after 1953 especially for Tanganyika whose sisal prices were falling fast (see Chart III. 7). After 1958 price declines became more pronounced, and with minor fluctuations reached a low level in 1963. In that year there was a welcome recovery mainly attributable to favourable prices for coffee and sisal. Indications at the moment are that this recovery was at best temporary and connected with the successful conclusion of the International Coffee Agreement. This agreement was concluded in 1962 between producing and consuming countries, and aims at preventing coffee prices from falling below their 1962 level by regulating export quotas to traditional markets. Already in the past prices have, at various times, fallen below $0.38 per pound which is the floor price set by the International Coffee Council, and quotas have been cut not only by the Council but by the Inter-Africa Coffee Organisation in a bid to arrest further declines in prices.*

Such fluctuations in prices first of all affect the value of a country's exports depending on their composition. Secondly, there will be an attempt to alter the composition of exports by concentrating production on those crops whose prices are rising and away from those with falling prices if it is believed that these changes are likely to persist for some time into the future. The nature and extent of this price effect depends on many factors; alternatives must exist and be known to exist, there must be willingness and ability to adjust, and the period of gestation of both possible export crops and existing ones has to be taken into account. Developing countries are known to be slow to respond to new circumstances, especially because production is for the most part undertaken by millions of scattered and illiterate farmers to whom economic information often seeps very slowly. The important point to make, however, is that whatever the reasons for failing to adjust to new circumstances, it is the ability to adjust quickly and effectively to new situations that will determine the extent to which the terms of trade move against a country.

* In 1966 the International Coffee Council executive announced an overall cut of 4½ per cent in export quotas to traditional markets. In addition to this cut the Inter-Africa Coffee Organisation also announced a cut of 4½ per cent in the quotas of its member countries. This is enough evidence of the seriousness with which coffee producing countries look at the future of coffee prices.

Computation of indices

The basic indices used to measure quantity changes in this study are Laspeyre's quantity indices with the 1960-62 period as the base. This means that the various commodities are combined with weights corresponding to their relative prices in 1960-62. This is the weighting system which seems most relevant for calculating the past rate of growth of the quantity of all agricultural exports, as a guide to projecting their future rate of growth, since recent prices almost surely give a better indication of future prices than do prices a decade ago. Moreover, for interpreting past growth, recent prices provide a weighting system which reflects the relative values of the various commodities as they have in fact worked out after past price fluctuations.* The basic indices used to measure price changes are the implicit indices obtained by dividing the value of agricultural exports at current prices by their value at 1960-62 prices. Thus the implicit price indices are in effect Paasche indices with given-year quantity weights.

Two variant forms of quantity indices are also calculated to indicate the effect of alternative formulae. The 1963 variants are simply Laspeyre's indices in which 1963 sisal prices have been used for Tanganyika and Kenya, and 1963 robusta coffee prices for Uganda, in lieu of 1960-62 prices. The linked variants are the result of linking a series of one-year Laspeyre's indices, in each of which the previous year's prices are used as weights. The linked variants thus differ much more fundamentally from the basic Laspeyre's indices. They describe the past, not in terms of how prices have worked out and how they may be assumed for the future, but in terms of the fluctuating prices in the successive years of the past period.

One notable feature of this period with respect to agricultural exports has been the diversity in trends of prices and volume of exports. This is brought out more clearly in Charts III.1, III.2, III.3, and III.4. It is clear from these charts that while the volume of agricultural exports has been rising fast for all countries during this period, prices have fluctuated a great deal. In 1962/3 Kenya

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* From these standpoints indices with recent price weights seem to be more meaningful than the official export and import indices, with 1954=100. The official indices are Fisher indices, which in effect use price weights combining 1954 prices and current prices in each year.

CHART III.1 Comparison of total value of domestic exports for Kenya, Uganda and Tanganyika

Kenya = ———— Uganda = — — — — — Tanganyika = ...

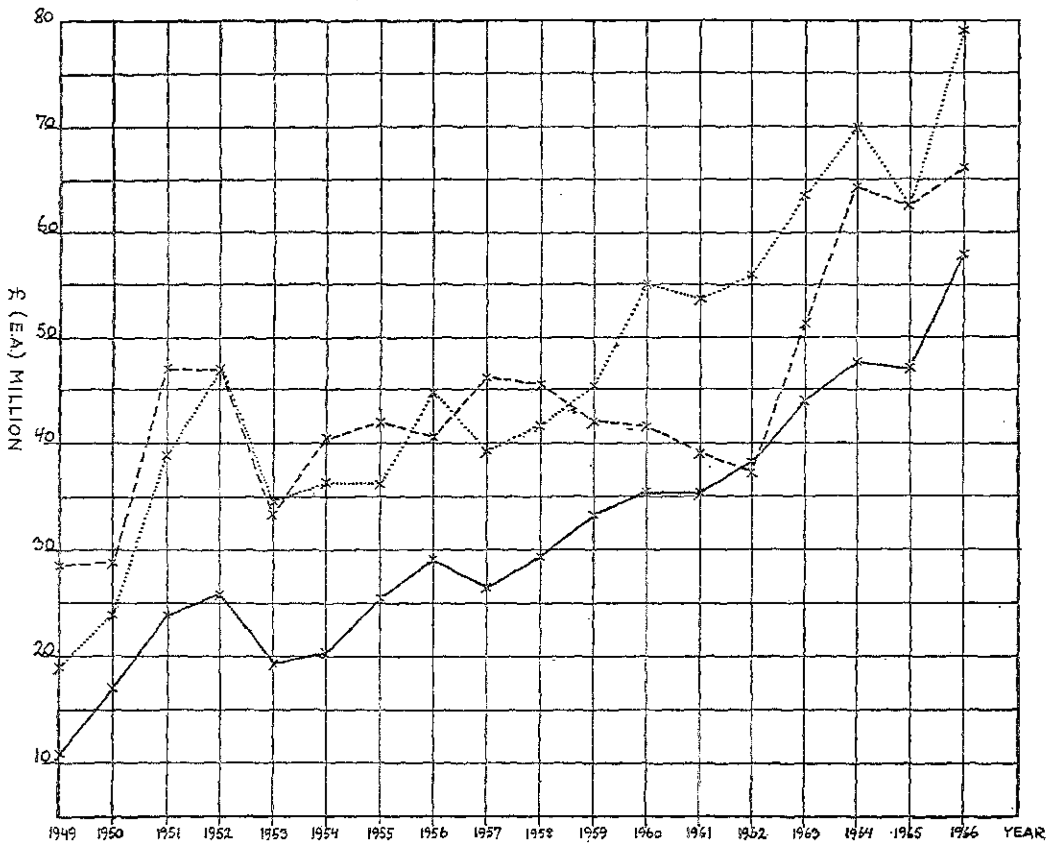


CHART III.2 Comparison of value for agricultural exports for Kenya, Uganda and Tanganyika, 1949-66

Kenya = ———————— Uganda = — — — — — Tanganyika = ...

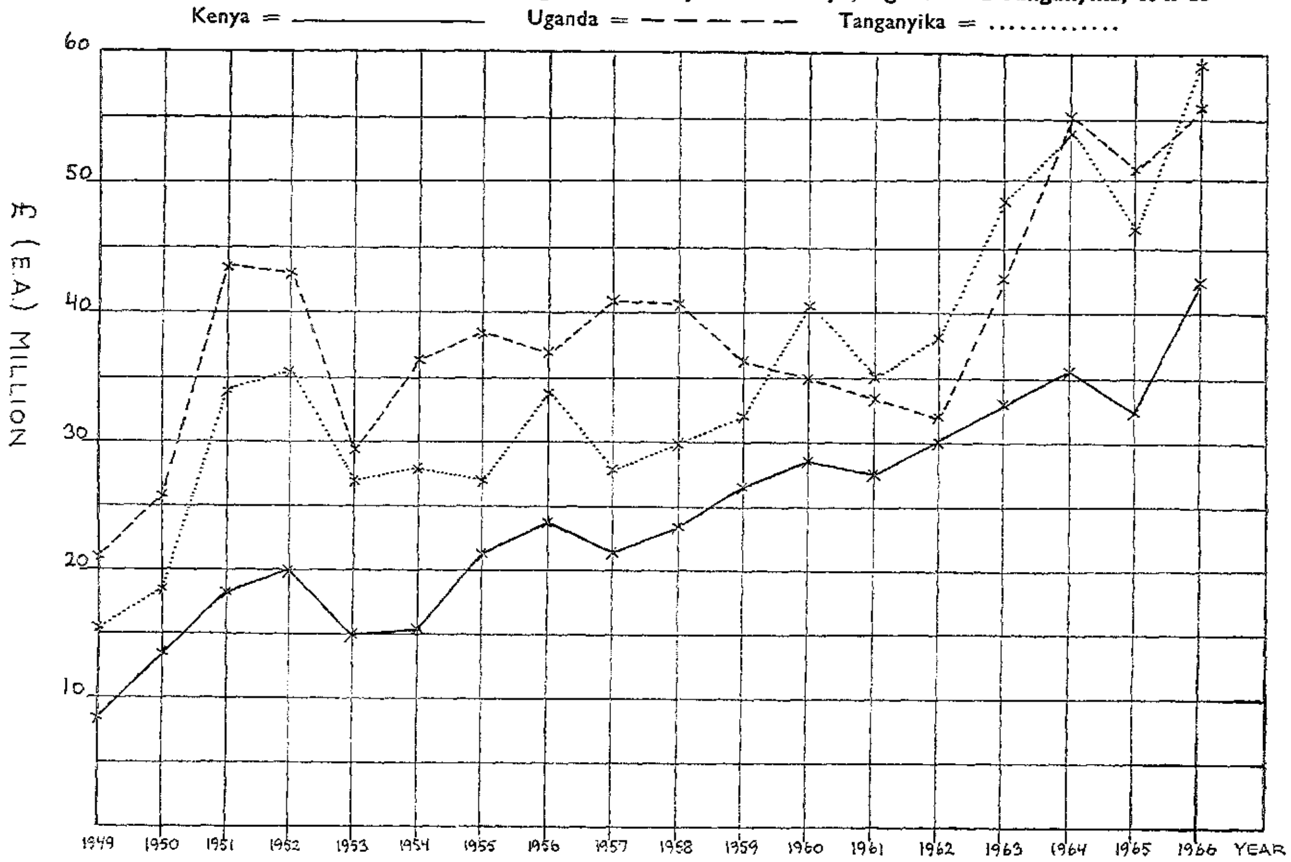


CHART III.3 Kenya: agricultural exports indices, 1949-66 (1960-62=100)

Value index = ———————— Price index = — — — — —

Quantity index = ...

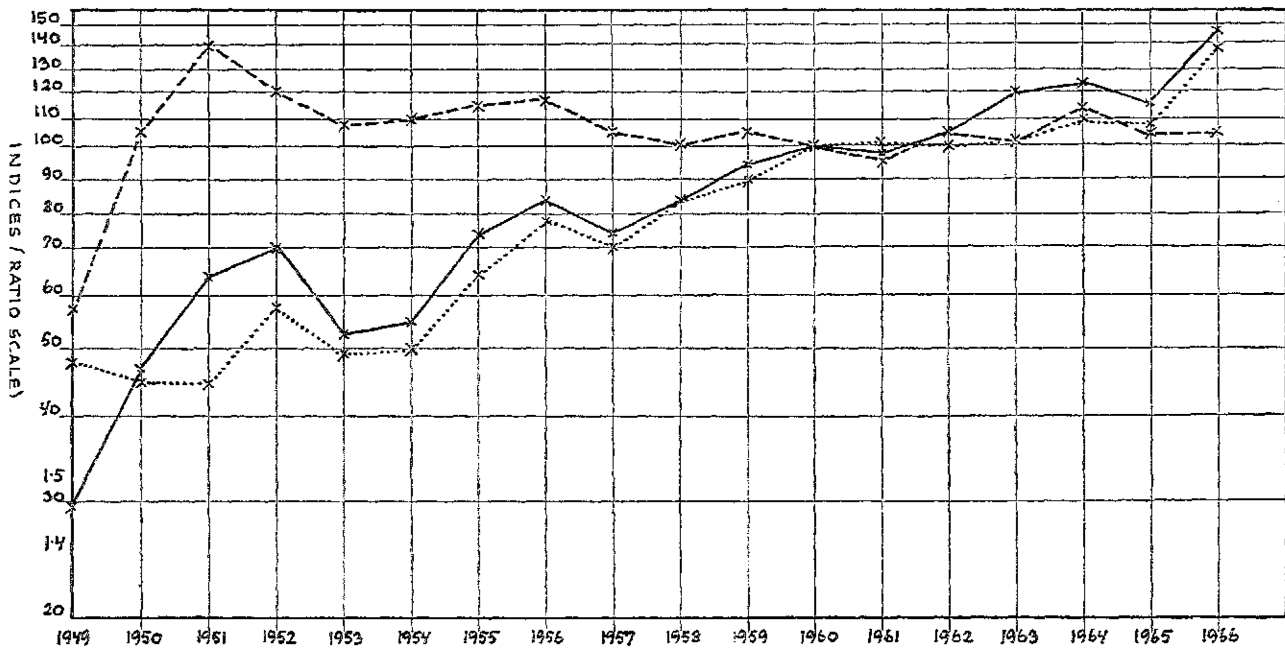
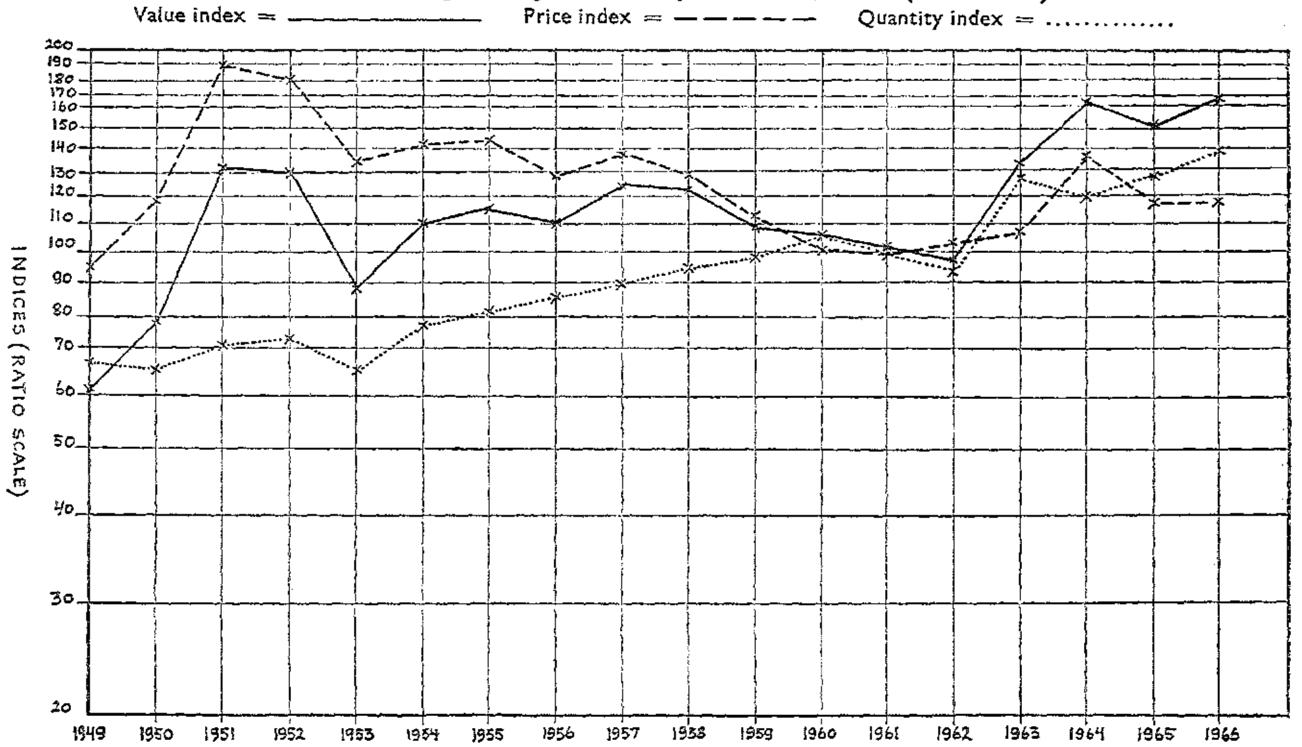


CHART III.4 Uganda: agricultural exports indices, 1949-66 (1960-62=100)



and Tanganyika were exporting more than twice the volume of their 1949/50 agricultural exports, and Uganda had also nearly doubled her volume which was a notable achievement. Prices, however, had shown differing trends: in 1962/3 the price index for Uganda's agricultural exports was 3 per cent below its 1949/50 level, that for Kenya was 25 per cent higher, while that for Tanganyika was at the same level as in 1949/50. Thus looking at East Africa's agricultural exports over a long period it is apparent that increases in value of exports have taken place mainly because of increases in volume of exports, prices having played only a small part in the case of Kenya and having been adverse for Uganda. From this observation nothing definite can be concluded about the future but it would be wise to plan as if export earnings can only be expected when the volume of exports rises, the projection of price trends being unreliable in the long run even when a trend can be detected. Moreover, it is the quantity of agricultural exports which is within the ability of these countries to plan: they can do very little, if anything, about the prices they receive for their major exports.

Major trends in quantity of exports

The changes which have taken place in the quantity of agricultural exports since 1949/50 are shown in Tables III.2, III.3 and III.4. In each case the last column of the table shows percentage changes in total exports, agricultural exports, quantity of agricultural exports and price indices between 1949/50 and 1962/3. From these calculations it is clear that Tanganyika has had the highest rate of growth of agricultural exports between the two periods. She increased the volume of her agricultural exports by 152 per cent against Kenya's 132 per cent and Uganda's 68 per cent. In some important senses percentage changes calculated for just two dates can give a misleading picture of real achievements; for one thing the magnitude of the percentage change may depend on the two dates selected, and in any case Uganda had achieved a high level of agricultural exports by 1949/50 especially if compared to Kenya. In order to meet some of these objections it was decided to fit regression lines to the simple Laspeyre's indices presented in Table III.1, in order to work out the rates of growth of volume of agricultural exports for each country. It was found from these calculations that Kenya has had an annual rate of growth of quantity of agricul-

tural exports of 7.2 per cent, Tanganyika 6.9 per cent and Uganda 4.2 per cent.

Further evidence to prove that Uganda's volume of agricultural exports has lagged behind that of her neighbours will be offered below by using different indices. At this stage we should note that though her own achievement is high, taken by itself, Uganda has not been as successful as her neighbours in increasing the quantity of her agricultural exports. This failure has been reflected also in the growth of her gross domestic product: between 1958 and 1962 there was virtually no change in her domestic product, and in fact there was stagnation in the economy until the recovery of 1963. On the other hand her neighbours, who had succeeded in increasing the volume of agricultural exports, were experiencing some growth, however modest, in their economies. Professor Clark has calculated that between 1954 and 1958 the respective rates of growth of monetary gross domestic product at current prices for Kenya, Uganda and Tanganyika were as follows: 8.4 per cent per annum, 3.4 per cent and 5.5 per cent. For the succeeding period 1958 to 1962 the rates of growth of monetary G.D.P. at current prices were again Kenya 3.9 per cent, Uganda 0.4 per cent and Tanganyika 5.9 per cent.[1] It would be idle to argue that these observations are unconnected; the position of agricultural exports in these economies is such that stagnation in their growth has serious repercussions throughout the whole economy.

Two other indices have been calculated to measure quantity changes over this long period. These are set out in Tables III.5, III.6 and III.7 where for each country three different kinds of quantity indices are compared. Those in Column (1) in each case are simple Laspeyre's quantity indices taken from Table III.1. In the second column quantity indices adjusted for sisal prices in Kenya and Tanganyika and coffee prices in the case of Uganda are shown. The last column shows the linked indices.

The adjusted Laspeyre's indices still show that Tanganyika had the highest volume increase of agricultural exports, while Uganda had the lowest increase. What they do, however, is to narrow the differences between countries. Thus Uganda's volume increase rises to 79 per cent compared to 68 per cent obtained by using the unadjusted indices, while Tanganyika's quantity increase falls from 152 per cent to 134 per cent. Kenya's quantity increase also falls from 132 per cent to 123 per cent. This could be because the adjustment affects Uganda less in the earlier period (1949/50)

when robusta coffee was not the leading export and comprised only 14 per cent of total exports, whereas by 1960-62 its share had risen to 37 per cent. On the other hand, for Tanganyika and Kenya the crops for which price adjustments have been made lost a certain degree of importance in total exports, especially in Kenya where sisal was no longer the leading export crop as it had been in 1949/50. In this case applying 1963 prices, which were substantially higher than 1960-62 average prices, would not very much affect the value of Uganda's total agricultural exports in the earlier years, whereas it would make a marked difference to the total value of agricultural exports of the other two countries in the same period. Towards the end of the period this same operation would then affect Uganda's exports significantly because robusta coffee had become the leading export crop from Uganda, but would not affect very much the value of the exports of the other two countries. This would mean a higher percentage increase in quantity for Uganda and a lower increase for Kenya and Tanganyika.

The linked quantity indices, however, reverse the performance of Kenya and Tanganyika with Uganda still in third place. They show that Tanganyika's increase of volume of agricultural exports was 118 per cent (as compared to 152 per cent obtained by using simple Laspeyre's indices) and that of Kenya is then 167 per cent. The reversal in performance between Kenya and Tanganyika is a little surprising, but one thing at least is clear. This is that all three methods of measurement show that the volume of Uganda's agricultural exports has been rising more slowly than that of her East African neighbours.

Commodity trends in the three countries

Having looked at quantity changes in aggregative terms, it is intended in this section to look at the commodity composition of East Africa's agricultural exports at the beginning and end of the period; in particular we are interested in finding out which commodities were responsible for the trends we have observed above. By just looking at the percentage increase between the years 1949/50 and 1962/63 we, of course, run the danger of attributing undue importance to commodities which were insignificant in 1949/50 but had somehow shown some increase by 1962/63. Thus in the case of Tanganyika it would be wrong to infer from the high percentage increases of her groundnuts exports of 1767 per cent (Table

III.10) between these two dates that groundnuts made a greater contribution to the increase of the overall volume of agricultural exports than sisal, which increased by a mere 74 per cent. If, however, at the end of the period the commodity had also increased its relative importance in the total value of agricultural exports, then this would merit its being counted among the commodities which made a great contribution to the increase in the overall quantity.* This is in fact true of Tanganyika's cashew nuts and meat, and more significantly still with Kenya's coffee. We must, therefore, be able to distinguish between increases in quantity which were important enough to influence the overall quantity index and those which, despite their high value numerically, could not have affected the overall index by very much.

Bearing this in mind, there is no doubt that in the case of Tanganyika sisal, arabica coffee and cotton made a very significant contribution to the increase of total volume of exports, and that the contribution of groundnuts, robusta coffee and hides and skins was, in this respect, insignificant (Table III.10). The quantity of cotton exported rose by 344 per cent and that of sisal by 74 per cent between 1949/50 and 1962/63. Since these were already leading exports in 1949 this increase in quantity was all the more significant in influencing the overall quantity index. Arabica coffee has also increased very fast in quantity, having registered an increase of 163 per cent between these two dates. Groundnuts show the highest quantity increase (1767 per cent) but this is due to the fact that very little of this commodity was being exported in the base period, so that in absolute terms the increase in groundnuts exports has not been impressive at all. On the other hand robusta coffee and hides and skins are exports whose contribution has been small simply because no marked increase has taken place in their export. In 1949/50 reasonable quantities of these products were being exported, but by 1962/63 robusta coffee exports had increased by only 5 per cent, and hides and skins by 48 per cent.

In between these extreme positions has been the performance of cashew nuts, meat and tea. These are commodities the export of which has been rising fast, and which were also increasing their share in the value of total exports relative to other commodities.

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* Assuming of course that the commodity in question did not increase its share in total exports primarily by enjoying favourable prices. In such a case its increased importance in the total value of exports would do little to enhance the overall quantity index.

The volume of cashew nuts exports has gone up by 918 per cent, tea by 721 per cent, and meat and meat preparations by 433 per cent; inspection of the detailed tables will reveal that in each case there has been a more or less persistent annual increase in quantity*. It can be said that the development of these three commodities has been the medium through which Tanganyika's agricultural exports have achieved some degree of diversification since at the same time no major export was being dropped altogether.

The experience of Kenya has been comparable to that of Tanganyika in the sense that a marked increase in most exports has been achieved over this period. The most remarkable increase has been that of arabica coffee exports, but the increase of tea and meat exports has also been very impressive. Arabica coffee exports have increased at an amazing rate such that in 1952 coffee overtook sisal as Kenya's leading export and has kept this position to this day. This rapid increase in coffee exports has also been associated with an increasing share of the crop coming from African smallholdings, following the government's policy of encouraging Africans to grow high value crops on consolidated and planned holdings. In the same way increased meat exports have, in large part, resulted from a deliberate government policy to settle European ex-servicemen on big farms under assisted farmer schemes and to encourage them to practise large-scale ranching or mixed farming in suitable areas.

Crops which showed only moderate increases were sisal, cotton and hides and skins. It will be shown in the next section that there were price difficulties with regard to sisal, and that this probably explains the slow rise in the quantity exported. In the case of hides and skins there is the fact that more hides and skins have been utilised locally, mainly for the manufacture of footwear. The failure to increase cotton exports was perhaps unfortunate since there were still suitable areas in which the crop could be grown at fairly remunerative prices: in 1964 the government seems to have woken up to this fact and now plans on increasing cotton production almost tenfold by 1970.

Uganda's biggest achievement over this period has been the remarkable increase in her exports of robusta coffee. Table III.9 shows that the volume of robusta coffee exports has gone up by

* The detailed tables are not appended but they can be obtained from the Makerere Institute of Social Research, P.O. Box 16022, Kampala.

406 per cent over the entire period. Other notable increases are arabica coffee (545 per cent), and tea (479 per cent). The failure of cotton exports to increase at all—in fact export quantities fell by 31 per cent between 1949/50 and 1962/63—is the most unfortunate feature of the whole period from the point of view of the economy as a whole. The highest quantity exported in this period was in 1954 when the quantity index stood at 137, which was not much higher than the 1949 index of 136. (In this regard a comparison with much earlier years would give a quantity index of cotton exports of 140 for 1937/8 against 115 for 1963 or 122 for 1961 which was a fairly normal year).* Thus increased coffee exports have to a large extent been at the expense of cotton exports, which may account for Uganda's slow growth rate of agricultural exports, and indeed of total exports. This is in contrast with Kenya and Tanganyika which were able to increase the quantity exported of all their leading exports, so that increased exports of other commodities went to augment the overall quantity indices.

The fact that coffee has to a large extent displaced cotton would imply one of two things: either resources (mainly labour) were fully employed such that increased production of coffee inevitably led to less production of cotton, or else the relative profitability of coffee to cotton made a switch of resources to coffee production inevitable, and then none of the unemployed or underemployed resources were attracted to cotton production. Applied to Buganda, the latter hypothesis seems to fit the facts much better since large parts of Buganda are suitable for producing both cotton and coffee, and it is here that the greatest amount of substitution has taken place. Buganda used to be a major producer of cotton when about one-third of the total acreage in Uganda in 1951 was planted there, but this has dwindled almost steadily since then as figures in Table III.11 will show: her share over the last few years has been between one-quarter and one-sixth. At the same time expansion of cotton acreages outside Buganda has been slow, which is not surprising as over many parts of Uganda cotton is regarded as

* Cotton production in the 1964/5 and 1965/6 seasons has already exceeded the 1937/8 record output. This is only partly attributable to the very heavy investment in tractors and group farms which took place in 1964. The main factors seem to have been the relatively high producer prices of these years coupled with the widespread use of subsidised insecticide. Some 20,000 bales of cotton is being utilised locally by the Nyanza Textiles factory at Jinja, so that some of the decline in exports would be due to this fact.

the 'poor man's crop' even when compared to some other crops besides coffee. It will also be recalled from figures provided in Chapter 2 that cotton farmers have contributed huge funds to development expenditure within the public sector, whereas coffee farmers have contributed relatively little: in one way or another cotton farmers have been "forced" to give up about £41 million compared to £7.6 million by coffee farmers.

The rapid switch away from cotton has been aided by the fact that cotton production commitments are made every year, and therefore it is easier to pull out of this line of production at the end of any one year without incurring losses than it is with coffee, for instance.

Difficulties of comparison over time

A certain difficulty arises when comparing quantity and price changes of products which may change in quality over long periods. This danger is inherent in the Laspeyre's method of constructing quantity indices when a given set of prices is applied to the quantities of exports for all other years without taking into account the quality element. In a situation where there has been an improvement in quality over the years the quantity indices would thus not truly reflect the total effort being expended to produce output, and similarly price indices will to this extent have to be adjusted to take these quality changes into account. It has generally been observed that this danger is very small with respect to agricultural products already established, since quality changes are minimal as compared to manufactured products. But it is impossible to ignore such changes in developing countries in which new crops are being introduced and generalised to many small producers since there is often a choice of concentrating the extension staff and funds available on encouraging either quantity or quality. In the case of Kenya rigid controls to ensure high quality for her coffee have delayed the very rapid expansion in coffee exports which would have taken place had that government adopted the attitude of the Uganda government. This is true even if it is admitted that arabica coffee generally requires higher standards of husbandry than robusta. This problem becomes more serious when we are looking at quantity changes for individual crops rather than at agricultural exports as a whole, since not all crops will have actually experienced an improvement in quality and perhaps there is a

certain element of compensation with some commodities deteriorating in quality while others are improving.

This problem apart, there is another problem of comparing quantity indices of a product which is a composite of many individual commodities. In the present study this would affect products such as meat, hides and skins, pyrethrum and wattle bark. In the case of hides and skins, and meat, many different kinds are lumped together, and the prices for individual commodities within the mix are not the same so that, in effect, some changes in both the quantity and price indices could be due to changes in the proportions of the various items in the agglomeration we have called hides and skins or meat and meat preparations. The difficulty with pyrethrum and wattle is similar except that there is another problem with the processed and unprocessed products. In the data used in this analysis pyrethrum flowers are combined with the extract, and in the same way wattle bark is combined with the extract from the bark. Both forms of these products have been exported almost each year until Tanganyika stopped exporting pyrethrum flowers in 1962. As the years progressed, the processed product has come to dominate the scene. Although it was not possible to investigate every individual item, as already suggested, the major difficulty arises only when we are discussing quantity and price changes separately for these particular products; the overall indices are very little affected. In spite of these difficulties there is enough evidence to show that meat exports have increased from Kenya and Tanganyika, and that their prices have actually been favourable. The quantity of hides and skins exported has probably not risen by very much in any of the three countries, while that for wattle has definitely fallen. It would be very difficult to make such categorical statements in the case of pyrethrum exports from Kenya without further research.

Trends in prices 1949/50 to 1962/3

There are three main reasons why prices for agricultural exports are of particular concern to the East African countries, as indeed they are to all developing countries dependent on the export of a small range of primary products. First of all, and with very few exceptions such as cotton, agricultural production is characterised by long periods of gestation such that production does not readily respond to price changes. Thus when sisal prices rise it takes at

least four years before increased exports can be forthcoming from new plantations: in the short run, which in this case is more than three years, all that can be done is either to over-cut existing bushes (with deleterious consequences on future productivity) or to meet the extra demand from accumulated stocks. The capacity to carry stocks in these countries is so low that increased demand is unlikely to be met from stocks, and the first method of meeting such demand is restricted to only a few crops. The typical response to rising prices is to plant more. In the reverse case, namely when prices are falling, it is equally difficult to adjust the supply to such conditions: in fact there are many reasons to suggest that the response will be to increase the volume of production in order to maintain incomes. The result of such movements is that an efficient allocation of resources is difficult to achieve even in the long run unless some form of long-term price forecasting and planning is practised; after all the long run is made up of short run adjustments.

The second reason for worrying about the prices of agricultural exports is that the East African countries sell their agricultural commodities in highly competitive markets in which their own control over prices is at best marginal, and for the most part they have to take the ruling prices for granted. In East Africa the only prices over which these countries have some control are pyrethrum in the case of Kenya, and sisal in the case of Tanganyika; and then both these commodities are threatened by synthetic substitutes in their major markets. For all the other major exports it would be true to say that the East African countries produce such small quantities in relation to world production, or face such keen competition, that the level of exportable quantities from East Africa has very little effect on world prices.

Putting these two things together we get the third reason for worrying about agricultural exports prices. Since in the short run there is very little that these countries can do to change the volume of their agricultural exports, their foreign exchange earnings come to depend on the prices they receive. This becomes really serious when prices are falling: it being taken for granted that increased foreign exchange earnings, even when unexpected, are always a good thing. Of course the size of foreign exchange earnings is really a function of both the price and the quantity sold; but as the quantity changes only slowly, it is the price which usually determines the fluctuations in the size of these earnings. Thus Uganda's export earnings rocketed to exceedingly high levels in 1963 and 1964 because of the recovery

of prices during those two years. Since the level of export earnings affects the rate of growth of these economies in ways already discussed, price movements affect the general state of the economies significantly. Measures which could be taken to lessen the impact of such price fluctuations are many and varied: they include schemes for diversifying a country's agricultural exports, and we discuss these in the last chapter.

For all agricultural exports taken together it has been Kenya which has had a favourable trend of prices in the sense that her price index in 1962/3 stood 25 per cent above what it was in 1949/50. This contrasts with Uganda's price index which fell by 3 per cent over the same period, while Tanganyika's index ended the period at the same level as at the beginning—(if we exclude the price rise of 1964). The shortcoming of comparing price changes just between two periods is that the percentage changes, in a very important sense, could depend on the dates selected: for instance if we had taken 1949 and 1964 Uganda would have had a more favourable price change than Tanganyika. Judicious selection of what can be regarded as normal years may to some extent eliminate this bias; but in a situation where countries are exporting different commodities, what is a normal year for one country or commodity need not be a normal year for another. However, in this case inspection of the appended graphs (Chart III.8) will also confirm the assertion that Kenya has had a better price trend than either of her two neighbours. Not only this, but these graphs also bring out the relatively mild fluctuations in Kenya's price index as compared to that of Uganda and Tanganyika. Since 1952, when Kenya ceased being heavily dependent on sisal exports, her price index has been fairly steady. This is yet another attribute of the relatively greater diversification of her agricultural exports.

Individual commodities which have contributed to Kenya's favourable price trend have been coffee, tea, pyrethrum and meat. In the case of coffee it has been the maintenance of a high level o husbandry on the farm which has given a good reputation to Kenya's coffee, and has enabled her coffee to maintain favourable prices in the face of declining prices for coffee from other parts of the world. Between 1949/50 and 1962/3 there was a 16 per cent increase in Kenya's coffee prices, and should this appear to be a modest increase, it should be remembered that over the same period Uganda's arabica coffee prices fell by 14 per cent, and those for robusta fell by 11 per cent. Commenting on the coffee industry

CHART III.5 Tanganyika: agricultural exports indices, 1949-66 (1960-62=100)

Value index = ————— Price index = — — — — — Quantity index = ...

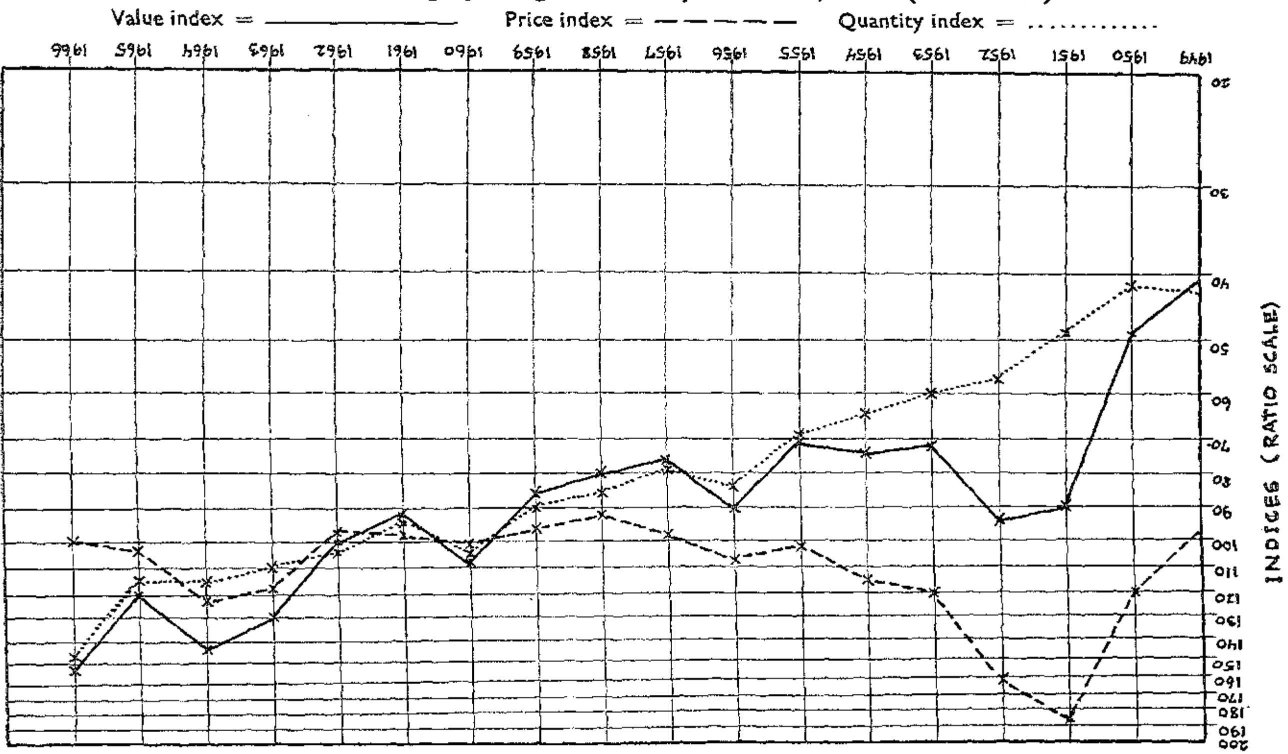


CHART III.6 East Africa: agricultural exports indices

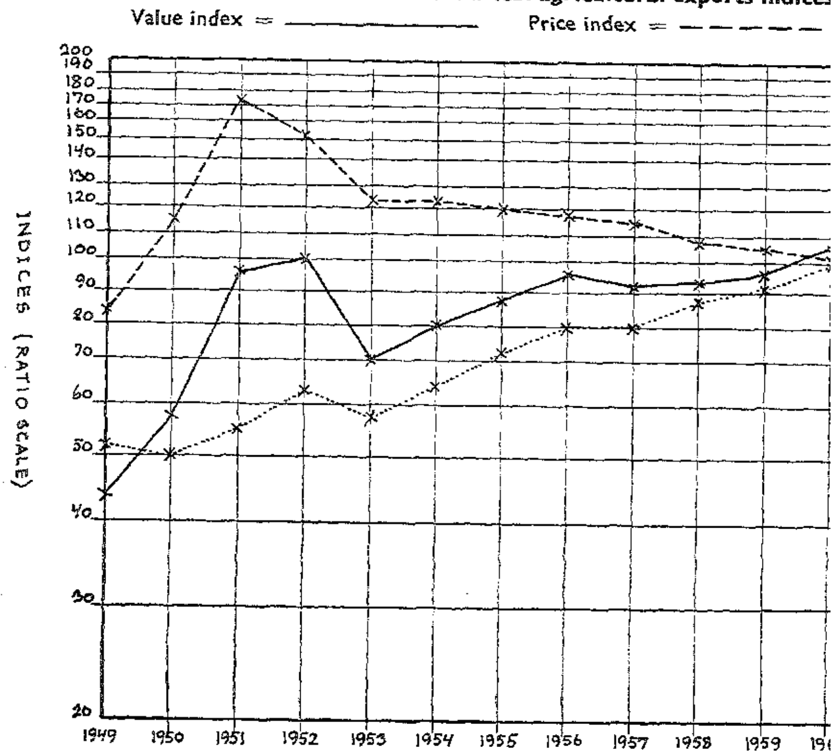


CHART III.7 Comparison of quantity indices for agricultural exports for Kenya, Ug

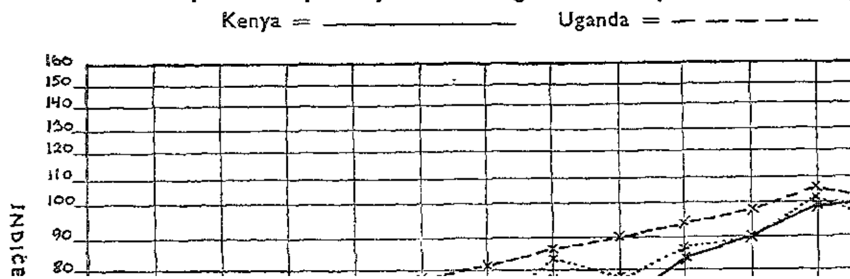
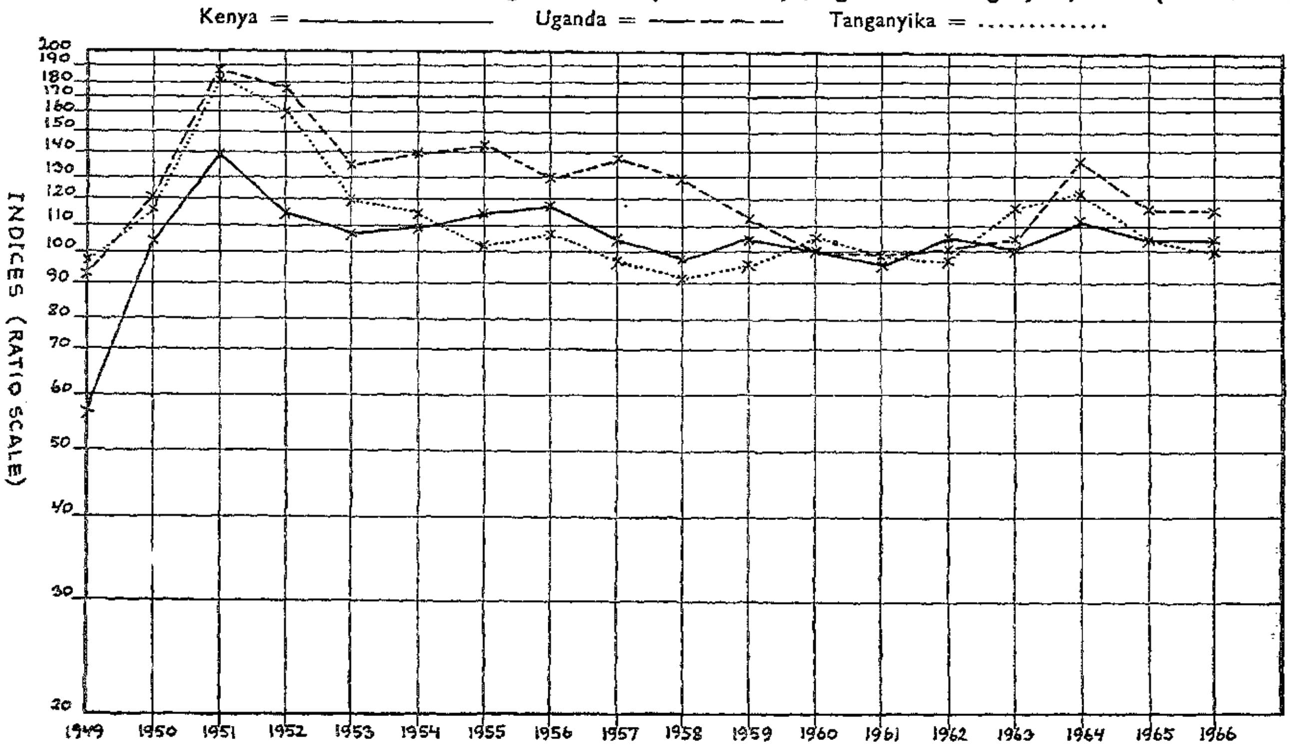


CHART III.8 Comparison of price indices for agricultural exports of Kenya, Uganda and Tanganyika, 1949-66 (1960-62=100)



nuts. Also she suffered a price fall for her arabica coffee of 14 per cent in spite of the fact that her neighbours secured price increases, 16 per cent for Kenya and 49 per cent for Tanganyika for the same commodity. This is related in large part to the organisation of the arabica coffee industry in Uganda which has been experiencing great difficulties in maintaining the quality of the product. A study of the industry has been made by J. W. F. Rowe, and this suggests that over this period the many problems of organisation connected with the transfer of the running of the industry from civil servants to co-operative societies have accounted largely for this drop in quality.[3] By comparison the arabica coffee industries in Kenya and Tanganyika have been run efficiently.

Crops which have been at the bottom of the list are sisal, robusta coffee and hides and skins. Cotton has also done badly in Kenya and Uganda. As already pointed out Uganda is heavily dependent on robusta coffee and cotton, and the fact that both these had adverse price trends over this period accounts for a fall of 3 per cent in her price index. In all three countries sisal prices fell, and in Kenya and Uganda price declines of hides and skins were more pronounced at -28 per cent and -19 per cent respectively, whereas Tanganyika's prices rose by 10 per cent.

A combination of favourable prices with a large increase in quantity of agricultural exports gave Kenya the highest increase of value of agricultural exports, and incidentally of total exports as well. Table III.2 shows that the value of her agricultural exports rose by 196 per cent between 1949/50 and 1962/3, and that total exports went up by 190 per cent. This contrasts with Uganda's position whose value of agricultural exports went up by a mere 65 per cent during this period in spite of a reasonable recovery in 1963. It was really in 1964 that Uganda's exports took a sharp turn upward, although this trend started in 1963. The value of Tanganyika's agricultural exports went up by 153 per cent and that for total exports by 167 per cent (Table III.4). The fact that total exports rose more than agricultural exports is also indicative of the observation made in the first chapter (p. 2) that over this period Tanganyika has reduced her dependence on the export of these commodities, while in the case of Kenya which had become more dependent on these commodities, the value of her agricultural exports went up faster than that of total exports.

The maintenance of a high level of export earnings requires that both volume of exports and prices be taken into account.

Table III.1

EAST AFRICA: AGRICULTURAL EXPORTS* INDICES—1946-1966

1960-1962 = 100

	Kenya			Uganda			Tanganyika			East Africa		
Year	Value Index	Quantity Index	Price Index	Value Index	Quantity Index	Price Index	Value Index	Quantity Index	Price Index	Value Index	Quantity Index	Price Index
1949	*29*	*48*	*61*	*62*	*67*	*94*	*41*	*43*	*97*	*44*	*52*	*85*
1950	*47*	*45*	*104*	*77*	*65*	*119*	*49*	*42*	*119*	*58*	*50*	*115*
1951	64	45	140	131	70	187	90	49	184	96	55	175
1952	70	58	120	129	72	179	94	58	162	99	63	157
1953	52	49	106	88	65	135	72	60	120	71	58	122
1954	*55*	*50*	*109*	*109*	*77*	*141*	*74*	*64*	*115*	*80*	*65*	*124*
1955	74	64	116	116	81	143	71	69	102	87	72	121
1956	83	77	117	110	85	130	89	83	108	95	80	118
1957	75	71	105	123	89	138	75	77	97	91	79	115
1958	*83*	*84*	*98*	*122*	*94*	*130*	*79*	*86*	*91*	*94*	*88*	*107*
1959	93	89	105	108	97	112	85	89	95	95	92	104
1960	99	99	100	105	105	100	107	103	104	104	103	101
1961	97	101	96	100	101	99	92	94	98	96	98	98
1962	*104*	*100*	*104*	*96*	*94*	*102*	*100*	*103*	*97*	*100*	*99*	*101*
1963	*120*	*116*	*103*	*134*	*127*	*106*	*129*	*109*	*118*	*128*	*117*	*109*
1964	124	112	111	164	120	137	143	115	124	145	116	125
1965	115	108	106	152	130	117	121	116	104	130	119	109
1966	149	143	104	167	141	118	155	153	101	157	147	107

* Agricultural Exports as defined in the notes to Table II.1.
Note: Italics indicate figures against which percentage charges are calculated in tables.

KENYA: CHANGES IN TOTAL AND AGRICULTURAL EXPORTS IN SELECTED SUB-PERIODS 1949/50—1962/64

	1949/50 (Av.)	*1954*	*1958*	*1962/63 (Av.)*	*1949/50—1962/63*
Total Exports £'000	14,073	20,260	29,300	40,873	— —
Per cent Change From Previous Date	—	+44	+45	+39	+190
Agricultural Exports £'000	10,818	15,642	23,617	32,044	—
Per cent Change From Previous Date	—	+45	+51	+36	+196
Agricultural Exports at 1960-62 Prices £'000	13,275	14,365	24,071	30,876	—
Per cent Change From Previous Date*	—	+ 8	+67	+28	+132
Price Index 1960-62=100	83	109	98	104	—
Per cent Change From Previous Date	—	+31	−10	+ 6	+ 25

* Changes in this variable can be regarded as reflecting changes in the quantity of exports.

Table III.3

UGANDA: CHANGES IN TOTAL AND AGRICULTURAL EXPORTS IN SELECTED SUB-PERIODS 1949/50—1962/63

	1949/50 (Av.)	*1954*	*1958*	*1962/63 (Av.)*	*1949/50—1962/63*
Total Exports £'000	26,051	40,575	45,409	44,555	— —
Per cent Change From Previous Date	—	+56	+12	− 2	+ 56
Agricultural Exports £'000	23,348	36,582	40,848	38,411	—
Per cent Change From Previous Date	—	+57	+12	− 5	+ 65
Agricultural Exports at 1960-62 Prices £'000	21,984	25,909	31,425	36,859	—
Per cent Change From Previous Date*	—	+18	+21	+17	+ 68
Price Index 1960-62=100	107	141	130	104	—
Per cent Change From Previous Date	—	+32	− 8	−20	− 3

* For notes see Table III.2.

Table III.4

TANGANYIKA: CHANGES IN TOTAL AND AGRICULTURAL EXPORTS IN SELECTED SUB-PERIODS 1949/50—1962/63

	1949/50 (Av.)	*1954*	*1958*	*1962/63 (Av.)*	*1949/50—1962/63*
Total Exports £'000	21,501	36,251	41,707	57,397	—
Per cent Change From Previous Date	—	+69	+15	+38	167
Agricultural Exports £'000	17,080	27,934	29,680	43,221	—
Per cent Change From Previous Date	—	+63	+ 6	+46	153
Agricultural Exports at 1960-62 Prices £'000	15,882	24,281	32,466	39,981	—
Per cent Change From Previous Date*	—	+53	+34	+23	152
Price Index 1960-62=100	108	115	91	108	
Per cent Change From Previous Date	—	+ 6	−20	+19	—0

* For notes see Table III.2.

Table III.5

KENYA: COMPARISON OF THREE DIFFERENT QUANTITY INDICES FOR AGRICULTURAL EXPORTS

Year	*(1)* *Laspeyres Quantity Index 1960-62=100*	*(2)* *(1) Adjusted For 1963 Sisal Prices 1960-62=100*	*Linked Index 1961=100*
1949	48	49	38
1950	45	46	44
1951	45	47	44
1952	58	59	54
1953	49	50	45
1954	50	51	47
1955	64	64	65
1956	77	71	73
1957	71	71	69
1958	84	83	81
1959	89	89	84
1960	99	99	98
1961	101	101	100
1962	100	100	103
1963	116	116	116
1964	112	111	100

In 1963 Kenya's sisal prices were 53 per cent above the 1960-62 level.

Table III.6

UGANDA: COMPARISON OF THREE DIFFERENT QUANTITY INDICES FOR AGRICULTURAL EXPORTS

Year	*(1)* *Laspeyres Quantity Index 1960-62= 100*	*(2)* *(1) Adjusted For 1963 Robusta Coffee Prices 1960-62=100*	*Linked Index 1962=100*
1949	67	61	60
1950	65	60	58
1951	70	65	65
1952	72	67	66
1953	65	61	59
1954	77	71	69
1955	81	76	84
1956	85	81	85
1957	89	87	93
1958	94	90	96
1959	97	94	101
1960	105	105	115
1961	101	99	110
1962	94	96	100
1963	127	121	126
1964	120	120	125

In 1963 Uganda's robusta coffee prices were 35 per cent above their level in 1960-62.

Table III.7

TANGANYIKA: COMPARISON OF THREE DIFFERENT QUANTITY INDICES FOR AGRICULTURAL EXPORTS

Year	*(1) Laspeyres Quantity Index 1960-62=100*	*(2) (1) Adjusted For 1963 Sisal Prices 1960-62=100*	*Linked Index 1962=100*
1949	43	46	53
1950	42	44	48
1951	49	52	56
1952	58	61	65
1953	60	63	68
1954	64	67	73
1955	69	72	76
1956	83	84	93
1957	77	79	81
1958	86	87	90
1959	89	91	88
1960	103	102	99
1961	94	94	91
1962	103	103	100
1963	109	108	108
1964	115	113	114

In 1963 Tanganyika's sisal prices were 47 per cent above their level in 1960-62

Table III.8

KENYA: PERCENTAGE CHANGES IN VALUE, QUANTITY AND PRICE OF INDIVIDUAL AGRICULTURAL EXPORTS 1949/50—1962/63(1)

(V=Value, Q=Quantity, P=Price)

	1949/50—1954			1954—58			1958—1962/63			1949/50—62/63		
	V	Q	P	V	Q	P	V	Q	P	V	Q	P
Ar. Coffee (28.8)	+128	+ 24	+90	+ 82	+131	− 21	+ 4	+ 35	−22	+ 339	+281	+ 16
Tea (12.5)	+101	+ 39	+43	+ 56	+ 67	− 8	+ 69	+ 74	− 2	+ 429	+308	+ 31
Sisal (12.1)	− 41	− 7	−36	+ 9	+ 29	− 17	+116	+ 43	+ 86	+ 72	+ 73	− 2
Pyrethrum** (8.5)	0.9	0.2	0	+443	+ 91	+188	+ 71	− 10	+90	+ 736	+ 75	+448
Meat (6.4)	+102	+115	− 9	+255	+166	+ 35	+117	+ 49	+ 49	+1462	+208	+ 64
Hides & Skins (4.3)	− 8	− 14	+ 9	− 29	− 3	− 27	+ 24	+ 38	− 10	− 18	+ 16	+ 28
Wattle (2.0)	+ 87	+ 14	+61	− 41	− 30	− 16	− 25	− 35	+22	− 17	− 48	+ 64
Cotton (1.8)	+234	+194	+12	− 36	− 19	− 20	− 15	− 15	—	+ 83	+103	− 10
Maize* (1.1)	—	—	—	+ 84	+ 90	− 3	− 31	− 26	−7	+ 238	+326	− 7
Cashew Nuts* (0.7)	—	—	—	—	—	—	+ 47	+102	−27	—	—	—
Ground Nuts*	—	—	—	—	—	—	+ 44	+ 42	− 1	—	—	—

* Large Percentage changes due to small initial values are *excluded from the table.*

** 1950 is used instead of 1949/50 average.

(1) Commodities are listed in order of importance of their value and the figures in brackets after each product indicate the percentage of the value of total exports constituted by the particular commodity for the period 1960-62.

Table III.9

UGANDA: PERCENTAGE CHANGES IN VALUE, QUANTITY AND PRICE OF INDIVIDUAL AGRICULTURAL EXPORTS—1949/50 1962/63(1)

	1949/50-1954			*1954-58*			*1958-1962/63*			*1949/50-62/63*		
	V	Q	P	V	Q	P	V	Q	P	V	Q	P
Robusta Coffee (36.9)	+135	+ 33	+80	+66	+112	−22	+ 12	+ 75	−37	337	406	−11
Cotton (33.7)	+ 22	+ 6	+13	−14	− 1	−11	− 38	− 34	− 4	− 34	−31	− 4
Arabica Coffee (6.1)	+222	+121	+71	+ 1	+ 36	−16	+ 47	+116	−32	386	545	−14
Tea (4.2)	+306	+148	+40	+ 3	+ 9	− 5	+106	+111	− 1	765	470	+32
Hides & Skins (2.6)	+ 22	+ 14	−38	+ 2	+ 25	−43	+ 45	+ 56	− 8	81	122	−19
Ground Nuts* (1.2)	—	—	—	−37	− 4	−34	− 23	− 26	+ 8	—	—	—
Sisal	− 65	− 44	−36	−26	− 26	0	+ 78	+ 1	+81	− 53	− 31	− 4

* Large percentage changes due to small initial values are *excluded from the table.*

(1) For notes see Table III.8.

Table III.10

TANGANYIKA: PERCENTAGE CHANGES IN VALUE, QUANTITY AND PRICE OF INDIVIDUAL AGRICULTURAL EXPORTS 1949/50—1962/63(1)

	1949/50-1954			*1954-58*			*1958-1962/63*			*1949/50-62/63*		
	V	Q	P	V	Q	P	V	Q	P	V	Q	P
Sisal (29.0)	− 5	+ 33	− 30	− 5	+ 19	−20	+ 85	+ 9	+72	+ 67	+ 74	− 4
Cotton (14.9)	+ 92	+ 33	+ 40	+116	+164	−19	+ 25	+ 26	+ 0	+ 417	+ 344	+ 14
Ar. Coffee (12.3)	+397	+ 89	+168	− 22	+ 9	−28	+ 2	+ 27	−23	+ 282	+ 163	+ 49
Meat* (4.1)	—	—	—	+ 10	− 4	+15	+165	+109	+16	+4176	+ 433	+226
Cashew Nuts (4.0)	+290	+227	+ 28	+ 96	+ 92	+ 1	+101	+ 62	+27	+1427	+ 918	+ 64
Hides & Skins (3.3)	+ 53	+ 32	+ 18	− 22	+ 24	+ 3	+ 35	+ 58	−14	+ 58	− 48	+ 10
Tea* (2.6)	—	—	—	+ 25	+ 35	− 7	+133	+ 51	+55	+1878	+ 721	+135
Ground Nuts* (1.1)	—	—	—	+328	+396	−15	− 25	− 27	+ 2	+2048	+1767	+ 11
Robusta Coffee (1.0)	+178	+ 25	+126	− 39	− 17	−22	− 33	+ 1	−34	+ 13	+ 5	+ 8
Wattle* (0.7)	—	—	—	—	—	—	—	—	—	—	—	—
Maize* (10.5)	—	—	—	—	—	—	−37.5	−91.5	+32	—	—	—
Pyrethrum	0	+13	− 14	+ 55	+ 61	− 3	—	—	—	—	—	—

* Large percentage changes due to small initial values are *excluded from the table.*

(1) For notes see Table III.8.

Table III.11

COTTON ACREAGES IN UGANDA 1948-62
(thousand acres)

Year	*(1) Total All Uganda*	*(2) Buganda*	*(2) as % of (1)*
1948 ..	1,559.9	476.7	30.6
1949 ..	1,628.5	527.9	32.4
1950 ..	1,490.7	508.1	34.1
1951 ..	1,514.2	416.5	27.5
1952	1,472.6	341.7	23.2
1953	1,611.2	398.1	24.7
1954 ..	1,738.8	431.9	24.8
1955 ..	1,585.5	373.6	23.6
1956 ..	1,568.5	346.0	22.1
1957	1,617.0	348.3	21.5
1958 ..	2,014.0	384.0	19.1
1959 ..	1,564.7	325.2	20.8
1960 ..	1,516.0	250.2	16.5
1961 ..	2,072.1	458.9	22.1
1962	1,803.5	277.9	15.4

Source: Annual Reports of Agricultural Dept.

Table III.12

PRICE TRENDS FOR SOME COMMODITIES 1949/50—1962/63

Commodity	*Percentage Change*		
	Kenya	*Uganda*	*Tanganyika*
Meat & Meat Preparations	64	—	226
Tea	31	32	135
Cashew Nuts	—	—	64
Arabica Coffee	16	−14	49
Cotton	−10	−4	14
Groundnuts	—	—	11
Hides & Skins	−28	−19	10
Robusta Coffee	—	−11	8
Sisal	−2	−4	−4
Maize	−7	—	—

Figures are taken from Tables III.8, III.9 and III.10.

For reasons expressed in the text it was considered unwise to include wattle bark and extract and pyrethrum in this ranking.

In the short run price movements are more important than quantity changes in affecting the total value of exports: changes in volume of agricultural exports occur slowly, if exception is made for the effects of the weather and for new harvests resulting from heavy planting in a particular period in the past. Price movements, however, occur abruptly and in both directions. Given a free market in agricultural commodities, the effects of fluctuating prices can be abated by having a more diversified range of agricultural exports, while the long-run objective must be to increase the volume of exports if high levels of export earnings are to be achieved. In this chapter attention has been focused on the behaviour of both price and volume over a long period in order to separate the influence of each variable on the total value of agricultural exports. The main conclusion of this discussion is that over this long period volume changes have been more important in affecting the total value of agricultural exports than price changes, and as one would expect, volume changes have been in one direction. On the other hand, for Uganda, prices have fallen while they have risen in the case of Kenya's main agricultural exports.

References

1. P. G. Clark, *Development Planning in East Africa*, East African Publishing House, Nairobi 1965.
2. J. W. F. Rowe, *The World's Coffee*, London H.M.S.O., 1963.
3. J. W. F. Rowe, *op. cit.* p. 163.

4

FUTURE PRICE TRENDS AND DEVELOPMENT PLANS IN EAST AFRICA

I Some preliminary considerations

From the viewpoint of agricultural planning in East Africa the kind of information most urgently required concerns the future prices of a wide range of commodities whose production in East Africa is technically possible. This is largely because the East African countries are for the most part small producers in the markets in which they sell their export commodities,* and can therefore plan to export as much as they produce without paying too much attention to the effect of their own output on world prices. Other things being equal, crops which it is profitable to export now will become even more profitable to export in the future if their prices rise. In a world free from planning constraints, production for export would be carried to that point where marginal returns to factors of production are equalised as between domestic production and production for export. Thus when the export prices of a commodity change, there is a need not only to alter the composition of exports but also to reallocate production factors between production for export and production for the domestic market.

It will not be possible in this study to hazard suggestions as to the proper allocation of resources between production for export and production for the domestic market. This is because, with the possible exception of large-scale estate production, there is virtually no information regarding net returns to factors of production engaged in the agricultural sector in East Africa.**

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* Exceptions in East Africa would be sisal in Tanganyika, pyrethrum in Kenya and robusta coffee in Uganda.

** A number of studies in this field have been launched at University College, Nairobi and Makerere University College. Their results are eagerly awaited.

For small-scale farmers the only reliable information we have concerning their economic transactions concerns the revenues from exportable commodities, particularly where the commodity in question is exported through a statutory marketing board. One can only make some guesses to the effect that perhaps too much emphasis has been placed on export commodities, especially in Uganda and Tanganyika, at a time when these countries were not faced with a foreign exchange problem, and that this has been done at the expense of developing and improving marketing arrangements on the domestic scene, not only within individual countries but within the East African common market as a whole. On certain assumptions there seem to be many more profitable opportunities to be exploited in this sphere than are perhaps realised.[1]

In future, however, foreign exchange earnings may impose a serious constraint on development as development plans become more ambitious, and as resources are channelled more into production to satisfy domestic demand rather than the export market. In such a situation it may be possible to expand production for export to a point where net returns are much below those which could be obtained if such resources were employed in satisfying the domestic market. In effect we would be putting a premium on foreign exchange in computing profitability of different projects because of the limiting nature of foreign exchange on development. If foreign exchange targets are known, what we will have to work out is the combination of exportable commodities which will enable us to achieve such a target with the least absorption of resources, in which case considerations of profitability in industries serving the domestic market would be largely irrelevant except when the divergence in net returns is really large. Information required for such an exercise would be the course of future costs of production of different export crops in relation to the prices at which these crops could be sold. Price projections presented in this study are intended to throw some light on the revenue side of the exercise only, without saying anything on the cost of production side.

By and large agricultural export prices on the world market depend on two things: the forces of demand and supply and institutional arrangements which have international repercussions. For instance, the recovery in robusta coffee prices over the last two years is attributable in part to natural calamities in Brazil's coffee growing areas, and partly to the successful conclusion of the

International Coffee Agreement. Institutional arrangements designed to maintain, and sometimes to raise the prices of agricultural commodities, have been strongly recommended by the United Nations Conference on Trade and Development which took place in Geneva in 1964.

The information on the market prospects for the several commodities examined in this chapter is based mainly on various documents recently published by the Food and Agriculture Organization which are listed at the end of this chapter[2, 3, 4, 5]. It is important to note from the very beginning that although a few countries may benefit by acting on information provided in these documents, if many countries were to draw up their plans on the basis of these projections and the plans were successful, the projections themselves could turn out to be wrong. Projections of supplies are the most difficult to make because their accuracy depends on the way individual countries draw up their plans, and the success with which they implement such plans. It is only possible to make tentative guesses about these decisions in advance. And then there are unpredictable events such as the outbreak of wars which, while they themselves may be short-lived, are capable of exerting lasting effects on the production and consumption of certain commodities. Nevertheless plans must be made on the basis of the best information available so as to increase the probability of being right; certainty about the future is unattainable.

2 Meat and meat preparations

Meat consumption is highly responsive to income and price changes. We find that even in North America meat consumption has not yet reached saturation point. The United States has, for example, of late become a net importer of meat as to about 2 per cent or 3 per cent of its total consumption and, in Western Europe, Italy, the United Kingdom and West Germany are expected to increase their meat consumption pretty fast over the coming years. Production is unlikely to keep up with demand in these countries and even with increased supplies from France and the Netherlands to the other Common Market countries there would still be room for imports from third countries. The greatest obstacle to increased exports from countries such as East Africa (in the event that they do not succeed in becoming associate members of the Community) will be the heavy levies imposed on such imports by the European

Common Market countries in order to protect their own farmers.

Within developing countries themselves, production is likely to fall far short of demand, and internal prices are likely to rise steadily since it is unlikely that these countries will be prepared to release enough foreign exchange in order to import meat from outside. It is interesting to note in this respect that Kenya, which had succeeded over the last few years in establishing an export trade in meat and meat preparations, not only with the outside world but also within the East African Common Market, is now unsure, apparently, whether her exports of meat and dairy products in 1970 will not be less than what she exported in 1962.*

Meat would have the brightest prospects in the field of agricultural exports from East Africa but for certain institutional barriers to the movement of meat products internationally. The particular meat products likely to enjoy these favourable price conditions are beef and poultry meat. It looks as though the most appropriate form in which to export beef would be as canned or highly processed meat if discriminatory tariff policies in developed countries could be overcome. As it is, processed meat faces high tariffs in developed countries because it is regarded as a manufactured article, and at the same time fresh meat is discriminated against on account of disease. There seems to be a lot of room for negotiation in this field.

The major determinants of demand for meat within the developing countries will be the growth of incomes in the future: the income elasticity of demand for meat being high at low levels of income. In the developed countries demand is likely to rise fast under the influence of population increases, although increases in income are going to affect the demand in some countries, especially in Western Europe.

Broadly speaking, the bright price prospects for meat will be a continuation of the observed trends of the recent past as far as East Africa's exports are concerned. It was noted in Chapter 3 that meat has had the best price trend over the period covered by this study, and that Kenya and Tanganyika have benefited greatly from expansion of their exports of this commodity during this period.

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* The Kenya Development Plan 1964-1970 contained figures indicating that there will be a significant fall in the export of meat and dairy products. The revised Plan, however, gives figures showing slight increases of these products between 1964 and 1970, and, unlike the earlier Plan, avoids mention of the likelihood of consumption of these commodities rising faster than production.

East Africa's plans for meat production

For the East African region as a whole the United Nations Special Fund has agreed to sponsor a livestock development plan.* Such a document should throw light on a number of problems relating to production and trade in livestock products within the East African Common Market as well as for export. At the moment there are three major problems facing the livestock industry in East Africa. First, there is the high level of protection afforded to this industry against outside competition in the interests of Kenya farmers. Secondly, there is the problem of quantitative restrictions of output practised by Kenya's statutory boards coupled with discriminatory pricing practices resulting in higher prices being charged to East African consumers while accepting much lower prices on the export market. Both these problems have generated a lot of heat within the East African Common Market, and have led in turn to the third problem facing the industry here; namely the development of the livestock industry in the other two countries at very high cost, in order to avoid dependence on Kenya farmers. This trend has been most noticeable in Uganda where a lot of money has been earmarked for tick control and improvement of water supplies for the development of the livestock industry. Perhaps the livestock industry would have been pushed in Uganda and Tanzania in any case, but the high cost of meat and dairy products arising out of the pricing policy of Kenya farmers has given the move an added impetus. The objective of official policy in Uganda is to make Uganda self-sufficient in livestock products by increasing the production of meat and dairy products fairly fast.[6] It is proposed, for instance, to set up a meat commission to control all major abattoirs and to purchase all cattle surplus to internal requirements of individual districts. Other measures include the control of diseases, the establishment of ranches through the Uganda Development Corporation, and the up-grading of local cattle by cross-breeding with exotic cattle.

The emphasis in the Plan is, however, placed on achieving self-sufficiency rather than increasing exports. This is understandable in Uganda's conditions since she is still a major importer of animal products from Kenya, so that in the initial stages import substitution rather than export promotion seems unavoidable. In fact, it

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* Food and Agricultural Organization of the United Nations: *East African Livestock Survey* Vols I, II, III, Rome, 1967.

will require a major effort on Uganda's part to be able to substitute for almost all her imports of animal products, mainly because of the present high level of imports in relation to her domestic marketable surplus, and secondly, because the rate of increase of consumption is expected to rise as fast as incomes rise. In the case of dairy products, for example it is not anticipated that imports can be entirely eliminated until the late 1970's.

It has already been pointed out that the Kenya Government does not expect her exports of animal products to rise significantly over the Plan period. This is partly due to the fact that production of these products is unlikely to rise fast enough in relation to internal consumption. There is likely to be a noticeable drop in production from the ex-European farms consequent upon occupation of the same farms by new African settlers who, at any rate initially, may not be able to run these farms with the same degree of efficiency as the former owners.

The determination of the Kenya Government to maintain and expand the livestock industry is, however, not in doubt. One piece of evidence of this determination was the decision to establish a Range Management Division in the Ministry of Agriculture in order to promote the development of ranching land. A number of ranches are being set up in the semi-arid areas of Kenya either as private ranches or on a co-operative basis. Government also intends to participate with commercial firms to establish five ranches in unoccupied areas of the Coast Province hinterland.

In addition a commission of enquiry has recently reported to the Government on changes necessary to improve the production and distribution of livestock products in the country. Among its major recommendations is the amalgamation of the Kenya Dairy Board with the Kenya Co-operative Creameries Ltd. to form the Kenya Dairy Commission. This could undoubtedly save on operating costs, but it is the recommendation concerning the eventual abolition of fresh milk quotas which looks more radical, and is likely to give a considerable boost to the industry. The assignment of quotas to fresh milk producers has often been attacked by economists working on Kenya's agricultural problems on the ground that it restricts production in favour of established farmers, and is partly responsible for the high price of dairy products from Kenya on the East African market.[7]

In spite of these efforts, it will not be possible for Kenya to increase her exports of livestock products substantially because of

the expected high increase in domestic consumption. For instance, it was expected that between 1964 and 1970 domestic consumption of all livestock products would be likely to rise by 39.4 per cent whereas exports were likely to rise by 21.2 per cent: in value terms the increases represent £3.9 million and £1.4 million respectively. It is expected that the range development programme will assist in this situation by increasing the off-take rate, and secondly by increasing the weight of animals slaughtered.

In the Tanganyika Plan there is no emphasis being placed on increasing livestock numbers as such, but some efforts are to be expended on increasing animals' average weight by about 10 per cent, and stock off-take by another 10 per cent. Average liveweight of Tanganyika's livestock is said to be the lowest in Africa, while the average off-take is much below the desirable figure of 18 per cent annually. It is hoped that with these improvements it will be possible to increase the production of livestock products by about 5 per cent per annum.

3 Tea*

For the moment there does not seem to be a problem of world oversupply of this commodity, but by 1970 indications are that export prospects may begin to look grim. Compared to coffee prices, tea prices have held firm for the past few years, and it is this fact which is inducing many countries to expand their tea acreages or to replant old areas.

On the demand side three things have to be taken into account when looking at the future of tea. First of all, there is the fact that in the developed countries income and price-elasticities for tea are very low. This means that increased consumption in these countries in the future will be dependent largely on increases in population rather than increases in incomes or reductions in prices. This situation would be better met by exporting to these countries teas of the highest quality, and also in forms more convenient to the consumer: tea bags and instant teas are recommended in this connection. Increased consumption in these countries could also be affected by publicity campaigns aimed at altering the tastes of the consumers; such campaigns have in the past been organised by

* This section was written before the impact of U.K.'s sterling devaluation in November, 1967 on the value of East African tea earnings in terms of East African Currencies.

individual countries, but recently concerted action has been launched under the direction of a Tea Campaign Committee to which the major exporting countries and large importing firms in the United Kingdom have agreed to contribute funds.

The second factor to be considered on the demand side is that consumption in the developing countries is highly responsive to price and income changes. At the same time the level of per capita consumption of tea is still very low. This means that in these countries rising incomes are likely to favour the consumption of tea. It also means that there is a possibility of exporting to these countries plain teas at lower prices. Tea is of course produced predominantly by developing countries—in the period 1959-61 91 per cent of total world exports came from countries of this designation. But there is still a strong possibility of increasing exports to the non-producing developing countries of North Africa and Latin America. Increased per capita consumption in some of the producing countries themselves, especially India and Mainland China, would also ease the international trade problem of tea since these countries have large populations.

Lastly, consumption of tea in centrally planned economies is at the moment very low indeed, and apparently there has not been any substantial increase in per capita consumption in these countries since the Second World War, although there has been a considerable rise in incomes over the last fifteen years. Per capita consumption in these countries is estimated at less than 4 per cent of that of the United Kingdom and about 10 per cent of such poor countries as the Sudan, Saudi Arabia, Ceylon and Malaysia. This low level of per capita consumption must be viewed against the background that tea drinking has for long been a well established tradition in East European countries, especially in the U.S.S.R. and Poland. There must therefore be room for increasing consumption and sales in these areas.

On the supply side expansion of tea production is likely to rise steadily. Many of the large producing countries, particularly India and Ceylon, have set high targets for tea production in their development plans. China (Taiwan), Ceylon and Pakistan have launched ambitious plans for increasing production by replanting schemes and fertilizer subsidies. The overall effects of these plans, however, are unlikely of themselves to result in an over-supply problem by 1970, and possibly not even by 1980: estimated consumption by these two dates is likely to be roughly equal to estimated

production. This means that probably no overall increase in prices can be expected over this period. The unknown element in the tea trade will remain the production prospects of Mainland China. Already Mainland China has announced fairly ambitious plans for the production of tea which, if realised, could greatly upset the world tea market.

These future trends will, in two respects, accord with the experience of the East African countries over the period covered by this study. In the first place, tea has not enjoyed rapid rises in prices: instead price increases overall have been rather moderate in magnitude, and in some periods minor price declines of less than 10 per cent have been registered for some countries.

A second feature regarding tea exports over this period has been the sharp increase in the volume of exports: Kenya increased her volume of tea exports by over 300 per cent, Uganda by over 400 per cent and Tanganyika by over 700 per cent, although the high percentage increases for Uganda, and particularly Tanganyika are accounted for mainly by the small volume of exports at the beginning of the period. These increased exports have been achieved without adversely affecting prices obtained because East Africa is still only a small exporter of tea compared to countries such as India and Ceylon. For instance, in 1962 East Africa's tea exports constituted only 4 per cent of the total world volume of exports. It can be expected, therefore, that for some time to come the volume of tea exports from the East African countries will not have significant effects on the price obtained.*

East African plans for tea production

All the East African countries have very ambitious schemes for increasing tea production. Perhaps Tanganyika's 1964-69 Plan is the most ambitious in this regard, aiming as it does at more than doubling the 1962 output of 4,100 tons. The Plan aims at producing 10,500 tons in 1970 and 20,600 tons in 1980. (It is in fact assumed in the Plan that there will be a rise in prices of about 4 per cent by 1970 compared to 1960-62). In the same way Kenya and Uganda have definite plans to give a substantial boost to the tea industry.

One important theme which runs through all these plans, however, is the emphasis on small-scale producers in all three countries.

* In early 1967 the East African countries managed to block efforts by the Asian producing countries to conclude an International Tea Agreement along the lines of the Coffee Agreement. There is a feeling in East Africa that there are untapped areas suitable for tea production, and that at even slightly lower prices than the current ones tea will still be a profitable crop to produce.

In the case of Tanganyika the idea of Africans growing tea is a very recent one: the World Bank Mission which visited Tanganyika in 1959 noted that no tea was being grown by Africans at that time, although there was suitable land available in the Southern Highlands Province.[8] The intention of the Government of Tanganyika as stated in the 1964-69 Plan, is therefore to increase African participation in this industry as soon as possible. It is intended that by 1970 the share of small-scale producers—which should be taken to mean African producers—will have risen to 10 per cent and to 25 per cent by 1980.[9] This will nevertheless mean fast expansion for the large estates also: they will be expected to more than double their output of 1962 by 1970 and their output in 1980 will be two-thirds greater than that of 1970. It must therefore be noted that a rapid expansion in estate production of tea is envisaged for Tanganyika.

On the contrary the Kenya 1966-70 Plan concentrates on encouraging production on small holdings to be administered by the Kenya Tea Development Authority. In 1962, 98 per cent of all tea produced came from large estates, and the value of the crop to the growers was estimated at about £6.7 million. By 1970 the value of the crop to growers will be nearly £11 million, but most likely the increased output will then accrue to smallholders. The intention of the Kenya Tea Development Authority is to increase the acreage owned by smallholders from about 10,658 acres in 1964 to 25,500 acres by 1970.[10] The Commonwealth Development Corporation is co-operating in the scheme by providing at least half the finance required to build sixteen factories which are estimated to cost £2.2 million. This emphasis on small scale producers should not be interpreted as a deliberate policy of discouraging large-scale farmers from contributing to the economic development of the country. Estate-planted tea was already showing a sharp decline by 1961 when the new acreage planted fell to 500 as against a normal yearly planting of 3,000 acres. Political uncertainty was at that time largely responsible for this fall and, after independence, implementation of the policy of settling Africans on land formerly owned by the European farmers has hardly been conducive to further planting of tea by the major planting companies on a large scale.

In addition Kenya is already a big producer of tea by East African standards as she produced 62 per cent of the region's tea in 1963. This means that she is in a better position than her neighbours to pay attention to who grows additional tea and to implement her

policy of African Socialism, whereas the problem in the other two countries, especially Tanganyika, is to get the industry going. Tanganyika's total production in 1963 was 4,939 tons, which constituted only 17 per cent of East Africa's production for that year.

In Uganda great efforts are being expended in the development of the tea industry. The Second Five-Year Plan 1966-71 calls for an expansion of tea production from the present level of 23 million lbs of made tea to 42 million by 1971. Within this period most of this increase will come from those estates already established, particularly those owned and run by Agricultural Enterprises Ltd., a subsidiary company of the Uganda Development Corporation. But, as in Kenya, the Government is committed to the promotion of African smallholders in the production of tea. It has created the Uganda Tea Growers Corporation (UTGC) through which the Government hopes to further the participation of Africans in this industry. It is intended to treble the acreage cultivated by Africans of this crop within the Plan period, and to build ten factories in the future to handle the processing of the crop.

The great emphasis on tea production in Uganda must also be viewed against the need to diversify Uganda's agricultural exports, and also the difficulties facing her two major exports, namely cotton and coffee. But speed is in fact, most important; the Tea Survey team which reported to the Government in 1964 on the development of the tea industry in Uganda warned against complacency regarding the future of world tea markets, and expressed the view that there was a likelihood of the supply of tea outstripping demand in the not-too-distant future.[11]

4 Coffee

The coffee market has been characterised by wide fluctuations in prices since the 1920's. The very low response of supply in the short run to changing prices, and the relatively inelastic demand are the main factors underlying the cobweb-type behaviour of prices in the coffee market. The coffee crop matures in about four to five years if planted from seed, and usually planting takes place during periods of rising prices, with the result that, until the new crop is ready, high prices continue giving further incentives for farmers to expand their acreage and for new farmers to enter the industry. In addition, yields tend to rise gradually to a peak when the tree reaches the age of eleven to fourteen years and it then

remains in production for another eight to twenty-three years. As a result of the surge in supply as trees reach the period of maturity, prices may drop very low indeed; and, because demand is not particularly responsive to prices, depressed conditions in the market continue until abandonment again reduces the supply.*

There are two features relating to world coffee production and which distinguish the post-war period from the pre-war period. The first is the spread of coffee production over many areas which before the war were not major producers of coffee. The most significant feature here has been the emergence of Africa as a main producer of coffee in competition with the Latin American countries. Table IV:1 shows that whereas in the thirties the Latin American countries accounted for something like 90 per cent of total world production of coffee, their share in 1962/3 was about 70 per cent and had been declining continuously over the years. This is also reflected in export figures which show that the share of the Latin American countries in the export trade has been falling almost at the same rate as their share in total production. In particular, the share of Brazil in total exports has fallen from about 60 per cent in the early thirties to just under 40 per cent in recent years. This increase in coffee production in Africa has, in part, been fostered by European countries which had colonies in Africa protecting the metropolitan market against Latin American coffee exports. This was coupled with the success of restriction schemes by means of which the Latin American countries, and Brazil in particular, have sought to maintain high prices. Moreover, to the extent that they succeeded in maintaining prices remunerative to new-comers, African production expanded to take advantage of this price 'umbrella'.

This trend has now complicated the problem of agreeing on some form of restriction scheme without hard bargaining: the irony of fate has operated in such a way that because of the very success of her valorization schemes in the thirties Brazil will never again, in the foreseeable future, be able to institute the same schemes independently. It also happens that the new producers are not only relatively poor compared to the majority of Latin American

* Since the elasticity of a demand curve is not the same at all its points it seems a little unjustified to refer to an inelastic demand curve without specifying the range of prices one is thinking about. It is true, for instance, that some parts of a demand curve may be elastic within certain price ranges but inelastic in other sections. This point will again be referred to below when dealing with East Africa's plans for this crop.

producers, but there is some ground for believing that their production costs are substantially lower than those of their competitors.* This creates a divergence of interest among coffee producers, with the low-cost producers having less interest in maintaining high prices if this would involve accumulation of stocks.

At the moment there is an excess supply problem in the world coffee market which the 1962 International Coffee Agreement set out to solve: one of the aims of the five-year agreement was stated as "the adjustment of production to demand within the lifetime of the Agreement"—that is up to 1967. As a matter of fact it is now (1967) anticipated that this excess-supply situation is likely to be with us up to 1970, and even beyond. While, no doubt, the Agreement has failed to redress the balance between production and demand, it can at least be claimed that its existence has helped to maintain high prices within the traditional markets—although the effective price received must be calculated taking into account the very low prices received in non-quota markets and the surpluses producers may fail to dispose of at any price.

Arguments relating to the desirability or otherwise of operating an agreement of the existing type will not be discussed in this study: the main concern here is to speculate on the course of future prices. By 1967/8 certain countries had threatened to leave the Agreement unless their quotas could be increased; a number of irregularities had been unearthed as when coffee originally sold to non-quota countries at extremely low prices has found its way into quota markets. Restricted quotas have particularly hit those countries whose coffee output was small prior to the 1962/3 negotiation of the Agreement, as this was the basis on which quotas were fixed. This did not take into account the large number of coffee trees planted after 1958 in certain countries such as Kenya. There is also the consideration that some countries can withstand the effects of lower prices better than others in which alternative opportunities are severely limited.

Above all, there is the fact that the maintenance of fairly high prices still makes it profitable for some countries not only to expand their production but also for new ones to enter the industry. The

*It has been suggested that the new coffee growing areas of Brazil may not be as high-cost as the old areas, but in terms of withstanding periods of low prices it is still possible that the small-scale producers in Africa would have an advantage. See also I. R. Wallace: *The World Coffee Situation*; .... and *Peasant Producers in East Africa*, Rural Development Research Papers, Makerere, 1966

Table IV.1

TRENDS IN COFFEE EXPORTS, 1922-40 AND 1948-60, ANNUAL AVERAGES (FIGURES IN BRACKETS INDICATE PERCENTAGES OF TOTAL EXPORTS)

(Thousand Metric Tons)

Period	LATIN AMERICA						Total		AFRICA		REST OF THE WORLD		Total	
	Brazil		Colombia		Others									
1922—26	823	(63.1)	125	(9.6)	245	(18.8)	1,193	(91.4)	27	(2.1)	85	(6.5)	1,305	(100)
1927—31	917	(60.8)	169	(11.2)	267	(17.7)	1,353	(89.8)	51	(3.4)	103	(6.8)	1,507	(100)
1932—36	853	(55.0)	208	(13.4)	279	(18.0)	1,340	(86.5)	104	(6.7)	106	(6.8)	1,550	(100)
1937—40	866	(53.5)	250	(15.5)	277	(17.1)	1,393	(86.1)	144	(8.9)	81	(5.0)	1,618	(100)
1948—51	1,021	(53.3)	304	(15.9)	288	(15.1)	1,613	(84.3)	275	(14.4)	25	(1.3)	1,913	(100)
1952—54	847	(44.2)	348	(18.2)	349	(18.2)	1,544	(80.6)	325	(17.0)	46	(2.4)	1,915	(100)
1955—57	896	(41.5)	315	(14.6)	400	(18.5)	1,611	(74.7)	483	(22.4)	63	(2.9)	2,157	(100)
1958—60	943	(39.0)	356	(14.7)	468	(19.4)	1,767	(73.1)	593	(24.5)	58	(2.4)	2,418	(100)

PERCENTAGES

1922-26 to 1927-31	.. +12	+35	+ 9	+13	+ 89	+ 21	+15
1927-31 to 1937-40	.. − 6	+48	+ 4	+ 3	+182	− 21	+ 7
1937-40 to 1948-51	.. +18	+22	+ 4	+16	+ 91	− 69	+ 19
1948-51 to 1955-57	.. −12	+ 4	+39	0	+ 76	+152	+13
1955-57 to 1958-60	.. + 5	+13	+17	+10	+ 23	− 8	+12

Source: Food and Agriculture Organization, Commodity Bulletin 33, *The World Coffee Economy*, p. 17, Table 14.

quotation below hardly indicates that coffee production is being successfully discouraged: "Kenya and the Ivory Coast are attempting to prevent further planting of coffee; Togo and Burundi, however, propose to develop their small industries, while Guinea expects to expand its production more than fivefold under the seven year plan. Cuba plans to treble its output by 1970, while a new coffee institute proposes to develop the industry in Bolivia; more important is the proposed doubling of the output of coffee in Costa Rica over the next seven years and the scheme to develop the industry in Peru. It may be noted, too, that the fourth five-year plan in India contemplates the expansion of coffee production to 85,000 tons per annum by 1970/71, although output in 1965/6 fell one-eighth short of the third plan target of 80,000 tons."[12] This is the most recent published assessment of the coffee production situation by the Food and Agriculture Organization, and for people who would like to see a reduction in coffee production it sounds rather dismal. In fact, it suggests that the coffee surplus problem will never be solved as long as present prices are maintained.[13]

On the other hand, the consuming countries who are signatories to the Agreement will not continue to pay indefinitely high prices for coffee in the face of accumulating stocks.* This pressure will tend to reinforce that coming from low-cost producing countries and from those whose coffee is of such high quality that they are in a better competitive position. These forces are likely to result in a lowering of prices to the producers within the framework of the Agreement through the gradual expansion of quotas.

Two further statements made in the 1966 Commodity review are instructive. It is stated that the level of export earnings from coffee were not maintained in 1965, and further there was a fall in consumption which the FAO attributes to high prices. The value of world coffee exports fell from $2,312 million in 1964 to $2,120 million in 1965.

The Review also points out that "... with new and higher yielding areas still coming into bearing, the immediate prospects are of world production expanding faster than consumption."

In view of all this, it would seem reasonable to conclude that

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* It has been suggested that the International Coffee Agreement should be looked upon as some kind of aid scheme whereby the rich countries (the traditional consumers of coffee) subsidise the poor (the coffee producers). This overlooks the fact that the need for foreign aid and the ability to utilise it effectively are unrelated to whether a country is a coffee producer or not, and whether it is a small one or a large one.

coffee prices are likely to decline further in the near future even with the renewal of the Agreement. Prices would tend to fall more abruptly had the agreement to restrict exports not been renewed, but then the solution to the coffee problem would also have come quicker, namely the weeding out of high-cost producers. There would also have been some stimulation of consumption because of falling prices particularly in low income countries. It is needless to point out that the intervening period would have been a period of real hardship to many coffee producing countries which would not be able to adjust quickly to these new circumstances and which depend on coffee exports as a major source of income, capital, and government revenue.

The historical study in Chapter 3 had indicated that the peak year for coffee prices was between 1954 and 1956. After this period prices began declining, although the most severe decline started after 1958. This trend continued up to 1962, and would have continued even further until enough producers had been discouraged but for the successful conclusion of the International Coffee Agreement in that year. With current production discouraged, it would not have been long before stocks began to decline, and then prices would have risen again. It is true, for instance, that it was the liquidation of Brazil's stocks in the early post-war years which accounted largely for the rise in prices in the early fifties, although increased consumption in the United States also played a part.

East Africa's plans for coffee production

The approach to coffee production in East Africa is conditioned mainly by the existence of the International Coffee Agreement which obliges these countries to limit their exports and to discourage further planting of coffee. In addition Kenya's approach is influenced by the feeling that there are still sizeable areas in Kenya suitable for coffee production which would have been planted with coffee a long time ago had there been a policy of encouraging Africans to plant the crop. It is also claimed that the quality of her coffee is very high.

Tanganyika expects by 1970 to have nearly doubled her 1960-62 average production of 27,000 tons, and to increase it by a further 19,000 tons by 1980. This increased production is expected to come mainly from increased yield per acre rather than by increasing the total acreage whose expansion is expected to be slight. Great

attention will, at the same time, be paid to the improvement of the quality of the crop, as this would not only increase proceeds out of a given quota, but would also increase the competitiveness of Tanganyika's coffee in non-quota markets. Copper spraying of coffee trees and better processing of the crop in central pulperies are the major means by which quality improvements are to be achieved. If the Tanganyika coffee industry can withstand a period of low prices, this would seem a wise policy to adopt in view of the fact that high prices are likely to come some time after the 1970's.

Kenya was undoubtedly caught on the wrong foot when the Agreement was being negotiated. Her production was very low at the time quotas were being fixed: for instance in the crop year 1960/61 her total coffee crop was around 33,000 tons which was less than her quota. But Kenya's 1966-70 Plan estimates that production from existing trees will result in a crop of about 70,000 tons by 1970. On becoming a full member of the Agreement in 1966, Kenya put up very strong representation to the International Coffee Council, especially with respect to her observance of the provisions of the Agreement by restricting further planting of coffee before she became a full member.* As a result she obtained very favourable treatment at the hands of the Council, and was allotted a quota which is sufficient to take care of her present level of output without accumulating stocks.**

Only limited coffee acreages are to be planted in the next few years in certain districts which lacked the resources to participate in the massive planting programmes in the early sixties.

The industry is at present beset by two major problems. The first is Coffee Berry Disease, a fungus which attacks the berries and can lead to losses of up to 30 per cent of the crop. No really successful treatment has been found to cure this disease apart from cutting down the infected trees. Secondly, the spread of coffee production to new areas has made it more difficult to maintain the quality of the crop for which Kenya's coffee is famous. This will

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* Kenya became a full member in 1966. At the time of negotiating the Agreement in 1962 she was not yet independent, but Great Britain signed on her behalf.

** Kenya was temporarily given an initial quota of 516,835 bags and a waiver of 227,407 bags (a total of some 44,000 tons). Her quota will finally be fixed after a mission from the Coffee Council has visited the country.

become more important still in the future when market opportunities shrink even further as a result of increased competition.

The situation in Uganda is complicated by two factors. First, coffee has, of late, acquired such prominence in the economy of the country that a reduction in its export would result in a significant fall in the incomes of many farmers who would still find coffee a remunerative crop to grow even at lower prices. This reduction in incomes will have repercussions on both local and central government revenues, as well as on the general level of income, thus slowing down the pace of development considerably.

In the second place, the bulk of the crop is grown by nearly half a million small farmers whose activities it will not be easy to control and co-ordinate, especially as no licence is required to plant the crop—not that this would make very much difference in the conditions prevailing. There are also some political problems which would make it very difficult to achieve a reduction in acreage by lowering the price to the grower sufficiently to make his shift into some other form of production inevitable. Coffee production is concentrated in the Buganda region in which the ruling party is trying to establish its influence against very heavy odds. There is also an export tax on coffee amounting to one-third of the value by which the price exceeds £90 per ton f.o.b. Mombasa for robusta and £195 per ton for arabica coffee. It will become increasingly difficult to justify the payment of low prices to the farmers while continuing to tax them at this rate.

There are no plans in Uganda to increase the overall acreages under coffee. However, the 1966-71 Plan indicates that there will be an attempt to replace up to 10,000 acres of robusta coffee planted with arabica in the Western Region. It is also planned to increase the yield per acre of arabica coffee in Bugisu and Sebei by chemical spraying. It is planned to treble the yield per acre in the area by these disease control measures.

More emphasis is to be placed on improving the quality of coffee; in particular robusta coffee farmers will now be encouraged to wet-process their crop, and a loan fund for this purpose amounting to £240,000 is being earmarked by the Government over the Plan period.

For obvious reasons it would appear that the coffee industry is likely to stagnate in this country, especially if the Government's programme of introducing other high-value crops materialises. Output, on the other hand, is likely to rise because of the heavy

planting which preceded the signing of the International Coffee Agreement; and in those areas where coffee is interplanted with banana trees, it is almost certain that coffee trees will continue to be looked after even if world prices were to fall further.

5 Cotton

The cotton crop is different from all the other crops considered so far mainly because the commitment to produce it is undertaken annually: the crop takes about six months to mature and the plants are uprooted after harvest. This would tend to make the supply of the crop more responsive to changing prices as between one year and another than is the case with coffee and tea.

Another point of interest here is that the crop is produced by both developed and developing countries, with production roughly equally divided between developed countries, developing countries and centrally planned economies. This greatly affects trading relations between the developed and developing countries when it becomes necessary for the former group of countries to protect their own farmers, and also when cotton enters international trade in the form of aid. This problem arises only with respect to the United States since it produces about 90 per cent of all the cotton produced in the developed countries, and is the world's largest producer of cotton, producing nearly one-quarter of the total supply of the crop.

At the same time the United States has, since the 'fifties, accumulated stocks of this commodity which reached a peak in 1956 when they stood at nearly three million metric tons against world total production of about nine million metric tons. The main reason for the existence of such large stocks is that the United States Government has been subsidising the American cotton farmer by guaranteeing to him a price much higher than the export price and being prepared to stock the surplus crop. In 1962 cotton stocks of more than 1½ million metric tons were still held in the United States, more than half of these being owned by the Commodity Credit Corporation, a government body through which the Government buys up cotton surpluses from farmers. The world cotton price is, accordingly, very much affected by the policy of the American Government with respect to the disposal of these stocks.

Another way through which the American Government influences the world cotton market is the sale of cotton on concessional

terms under the provisions of Public Law 480. This is really part of the aid programme whereby countries in difficulties can obtain agricultural commodities from the United States, the domestic proceeds from the sale of which are then advanced to the recipient country in the form of a long-term loan for use on development projects. India has been the major beneficiary under this programme with respect to famine relief, but she also received cotton on similar terms in the crop year 1963/4 when, as a result, Uganda had to make *ad hoc* arrangements to sell her cotton to Mainland China in large quantities because her major customer was being treated to cheap supplies from elsewhere. These two considerations make the policy of the United States Government a key factor in determining conditions in the world cotton market, and in fact the level of stocks held by that country and the method of their disposal are the major factors governing the short-run price of cotton on the world market.

On the demand side there is at present a great deal of competition from man-made fibres. The vulnerability of cotton in this regard arises mainly from two factors. First of all, man-made fibres have got texture qualities which are very much desired by the consumer but are absent from the natural product. This puts cotton at a serious disadvantage since, from this standpoint, it is regarded as an inferior commodity to the artificial product, and can therefore be disposed of only at extremely low prices. Secondly, there is a strong likelihood that efficiency will increase much faster in the synthetic manufacturing industries, with the result that man-made fibres will become even more competitive with cotton. At the moment most synthetic materials are a little too high-priced compared to cotton fabrics, but technological improvements are more likely to be on the side of man-made fibres than on the side of raw cotton.

Western Europe imports about 60 per cent of all cotton traded internationally, but their import demand is to a large extent tied to exports of cotton goods. As the developing countries set up their own textile industries, and as competition from Japanese textile mills intensifies, the demand from Western Europe for cotton is likely to remain stagnant and perhaps fall in absolute terms.

The probability at the moment is that cotton prices are likely to remain weak on the world market, and subject to policy decisions of the United States Government, they are more likely to fall than rise. It will therefore become more difficult for cotton producing countries to expect to increase their export earnings from cotton

as competition among exporting countries becomes more intense.

The tables presented in the appendix show that cotton prices have not been buoyant over the last few years for the East African countries, and their upward trend after the break-out of the Korean War was extremely short-lived compared to that of coffee. They dropped very rapidly after 1953 and they have never really recovered much beyond their 1950 level.

East Africa's plans for cotton production

Uganda is the largest cotton producer of the three East African countries, and her economy is very much dependent on the export of this commodity. In terms of export value it is second only to coffee. The 1966-71 Uganda Plan clearly states that if the Plan is to succeed there has to be a very large increase in the production of cotton. Accordingly, cotton production is to be increased by one-third by 1970/71 when total output will be about 575,000 bales. It will be a major task to achieve this target in Uganda's conditions. The main strategy for achieving this target is to continue the subsidy scheme on D.D.T. for spraying the cotton crop: it is claimed that a correct application of this insecticide could double the yield per acre. There will also be some emphasis on the use of fertilizers which, it is claimed, could increase yields by over 200 lbs. per acre.

It must be pointed out that cotton is not a particularly profitable crop to grow in Uganda, and in most areas of Uganda it is regarded as a poor man's crop. The fact that cotton prices are likely to fall in the near future combined with the exhaustion of the Cotton Price Assistance Fund means that farmers are not likely to be offered higher prices for this commodity. There is an export tax on cotton which, if removed, could enable a high price to be paid to the farmers; however, the budgetary situation in the country makes this possibility remote.

On the other hand if the cost of production could be reduced by increasing the yield per acre through the introduction of high-yielding varieties, or the application of subsidised inputs, there is a chance that this target could be approached. There will still remain the problem of disposing of the crop in overseas markets which, in view of the above forecasts, will not be an easy job.*

* Barter deals made with Uganda's largest cotton buyer, namely India, for the disposal of a large consignment of cotton from the 1965/6 crop are already running into trouble.

In the Kenya 1966-70 Plan the most ambitious scheme in the agricultural sector concerns cotton production. The intention of the Plan is to quadruple the cotton output of 1964/5 (23,000 bales) by 1970/1. It is hoped to achieve this target by increasing the cotton acreage by 200 per cent by 1970, and also by increasing the yield from existing acreage by 50 per cent. Kenya is at present a minor producer of cotton accounting for only 10 per cent of East Africa's total output, and so there may be large areas in the country suitable for cotton production which have not yet been tapped. On the marketing side, however, there will be difficulties of selling the crop; the rapid expansion of production is likely to tax the marketing organisation of the Cotton Lint and Seed Marketing Board at a time when market opportunities are contracting.

Tanganyika expects a secular fall in cotton prices; she nevertheless plans on more than doubling her 1960-62 average output by 1970, and output in 1980 is planned to be nearly six times as much. There is hope expressed in the 1964-9 Plan that the farmers will be able to maintain their competitive position in world markets by improving the efficiency of the cotton industry at home, especially by using fertilizers and insecticides. The expansion of cotton production will occupy a significant position on settlement schemes: the Plan in fact claims that cotton production is popular among rural producers. If this is true, it will prove a great asset in boosting production in the next few years.

6 Sisal

Sisal prices are dependent on three major factors: the prices of other hard fibres (both the natural and artificial ones) particularly abaca and henequen; the level of business activity especially in the agricultural and shipping industries; and, lastly, the supply of sisal proper, which in the short-run is pretty inelastic. Each of these factors will play a part in shaping the future prospects for trade in sisal.

On the whole the outlook does not look bright, due to the development of commodities which are close substitutes for sisal such as abaca, henequen and synthetic fibres. Among the natural hard fibres sisal is cheaper than abaca and, indeed, during periods of rising prices there is a tendency for the trade to substitute sisal for the lower grades of abaca. On the other hand, henequen is cheaper than sisal, and so during periods of rising prices, there may be a

tendency to substitute this commodity for sisal. In each case the reverse holds true when prices are falling, although there are limits to the possibility of substitution. But the important point here is that, given the demand for hard fibres, the supplies available of these other commodities greatly affects the willingness of the trade to pay high prices for sisal.

The world's production of abaca is concentrated in the Far East, and the Philippines export nearly 90 per cent of total world exports. Existing plans in the Philippines are designed to double the present level of output by financing agricultural research and giving technical assistance to producers with the aim of replanting abandoned or neglected farms in the Davao area. Indonesia also has a very ambitious scheme of expanding her abaca production. The most likely outcome if these plans succeed, is that there will be a fall in abaca prices, since the demand for this commodity is unlikely to grow at this rate. This would lead businessmen to substitute abaca for sisal with the result that outlets for the latter are likely to be severely restricted by 1970. In Latin America output of henequen and sisal is likely to rise by 30-40 per cent between 1960 and 1970, mainly as a result of improving the efficiency of the industry.

At the moment competition from synthetic fibres is not an immediate threat because of the high price of the artificial product: the synthetic commodity is said to cost about two-and-a-half times the cost of the natural product even taking into account the advantages of the former. It is, however, in the industrial and marine cordage business that synthetics are more likely to displace sisal products. It is claimed that the synthetic ropes do not rot as easily as the natural fibre ropes; it has also been found that the synthetic ropes run more smoothly round bales if they are used as baler twine.

The entry of Brazil into the sisal industry in the mid-fifties has also adversely affected Tanganyika's dominance of the sisal market. The Government of Brazil has given full support to sisal producers and the industry was heavily subsidised right from the beginning. In 1956 and 1957 the Brazilian Government introduced a bonus of 48 cruzeiros per dollar accruing to sisal producers from their exports to the United States; this bonus was on top of the official rate of exchange of 18 cruzeiros to the dollar. In mid 1958 this system was generalised so as to include all sisal exports to other countries, and an inclusive rate of 92 cruzeiros per dollar was then paid to all sisal exporters.[14]

At the same time Mexico has greatly increased her exports of finished twines to the United States, which is the largest market for hard fibres. In the 1950's a combination of these two factors reduced substantially East Africa's exports to the United States; for instance East Africa's exports of sisal to that country fell from 71,900 tons in 1952 to a mere 16,400 tons in 1956.

On the demand side, the main outlets for sisal are in agricultural twines, the demand for which varies with the level of agricultural activity in the developed countries. Although the level of agricultural activity may rise in the future and, notwithstanding what has been said above concerning the danger from synthetic fibres not being immediate, there is at present a great danger to the sisal industry due to the fact that reaper-binders are being replaced gradually by combine harvesters in developed countries. At the same time, it is likely that developing countries will side-step the reaper-binder stage and go directly to combine harvesters. This is bound to restrict the demand for sisal and other hard fibres, resulting in keen competition among the producers for customers.

All these considerations put together indicate that prices for sisal are likely to decline in the near future.

East Africa's plans for sisal production

Tanganyika's sisal plans are not very ambitious. She is the world's largest producer of sisal, producing about 40 per cent of the world total output. Accordingly, changes in the volume of her exports could affect the price for this commodity on world markets. By 1970 she intends to increase her production by a mere 35 per cent over her 1960/62 average output, and the 1980 projected output will be 30 per cent above that of 1970. There is also an expectation in the 1964/69 Plan that sisal prices are going to rise by 30 per cent by 1970 (over 1960/62 average prices), and fall by 11 per cent between 1970 and 1980. This should mean that the expansion in sisal production after 1970 will be taking place against prospects of falling prices. As a matter of fact, prices in 1963 were 47 per cent above the 1960/62 average prices so that an expectation of a rise of 30 per cent over the 1960/62 average must anticipate prices lower than those which were ruling in 1963 and 1964. This would be consistent with the Food and Agriculture Organization analysis of future price trends.

On the whole, Tanganyika plans to meet the depressed conditions

in the sisal market by expanding her sisal exports to East Asia and Eastern Europe, and by pushing the sale of sisal by-products whose demand she expects to rise pretty fast, thus offsetting future changes in the traditional end-uses of the fibre. This will be additional to steps aimed at maintaining the quality of her sisal.

Sisal production is also to figure in her settlement schemes as it is planned to set up five sisal estates at a total cost of £1.4 million for the first five years of their operation. These will actually be large settlements of about 5,000 acres each with a capacity to produce 2,000 tons of fibre per year. These will be additional to smallholder estates (to be set up adjacent to privately owned estates) which will be much smaller (500 acres each), and will draw upon the capital and technical know-how from the adjacent estates. At the time of writing, however, it appears unlikely that the Government intends to proceed with these settlements at this rate.

Uganda has never taken to sisal production seriously: the quantity of sisal exported in 1963 was only one-third of what was exported in 1951. However, it is stated in the 1966-71 Plan that the Government intends to reverse this trend by setting up a Sisal Board. It is hoped that the Sisal Board, in collaboration with private enterprise, will set up estates with individual smallholders who will be organised on a co-operative basis. In view of the price forecasts, the Board will have to operate extremely efficiently to be able to produce at a remunerative price, and to gain a foothold in a shrinking market. This will be a difficult job.

The Kenya 1966-70 Plan recognises the difficulties which the sisal industry is going to face in the future; the picture which emerges is very similar to that presented in this study. Accordingly, the Government does not intend to invest any money in this industry, except perhaps in the field of research: "In general, Government policy is that there will be no public investment in any aspect of the sisal industry, apart from research, except on firm evidence that such investment will be profitable at sisal prices expected to prevail in the 1970's."[15] This being the case, the Plan makes radical changes on the production side: the 1963 National Cash Crops Policy[16] target of 20,000 tons annual production by smallholder producers is abandoned, and sisal planting on settlement schemes under the direction of the Department of Settlement is virtually dropped. It has, in some cases, been found necessary to uproot sisal on land purchased for settlement.

The Uganda and Tanganyika Governments perhaps have something to learn from the statement by the Kenya Government as to why they had to abandon their smallholder sisal schemes. They did so on the grounds that no means had yet been found of organising smallholder sisal production so as to cover costs at current price levels. Such a statement coming from a government with more experience of successful settlement schemes must be taken seriously.

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5

A STRATEGY FOR THE DEVELOPMENT OF AGRICULTURAL EXPORTS

It was pointed out in Chapter 2 that the great difficulties of increasing exports of manufactured products make it seem almost certain that the East African countries will, for a considerable time in the future, have to depend on exports originating from the agricultural sector. This is perhaps the most compelling reason why plans for the industrialisation of these countries must place great emphasis on agricultural exports in spite of the fact that this will, in the short run, conflict with the aim of reducing dependence on them. Hence the need to have a strategy for their development in the future.

There are two objectives of planning policy which ought to determine strategy with regard to agricultural exports. First of all, there is the requirement that the level of total exports should rise fast enough to accommodate the external financial requirements of the East African plans. This requirement is set by the imports of capital equipment implied in the investment targets; the increased amounts of producers' intermediate goods and raw materials as industry grows, and the additional imported consumer goods arising out of increased disposable incomes when the benefits of development are passed on to the consumer minus the import substitution which this development achieves. In the long-run exports must also cover payments of interest on foreign loans as well as repayment of the loans themselves. In this regard it is worth noting that the high targets which have been set by the governments of East Africa in their plans will only be possible if the level of export earnings rises at the required rate. Foreign aid could somewhat relieve this constraint, but its timing and magnitude are hard to predict.

Secondly, there is the need to have a steadily rising level of export earnings with fluctuations reduced to the minimum. It should be stressed that it is not only the downward movement in export

earnings that we are worried about, but also deviations from the average export earnings necessary for financing planned imports. These fluctuations can greatly disrupt planning strategy through losses of foreign exchange reserves and thus have repercussions on fulfilment of the Plan targets. This means that, apart from increasing the total value of exports fairly fast, there must be a policy of reducing fluctuations in export earnings.

The means for achieving these aims will be discussed under two headings: these can conveniently be classed respectively as national measures and measures which call for international co-operation for their initiation and execution. The discussion of national policies will be restricted to what the East African countries can do on their own, and thus will exclude national policies of other countries which conceivably could affect the trade pattern of the East African countries. It should be emphasised that the distinction is not intended to imply that these are always alternative ways of achieving certain ends; in fact these measures ought to be looked at as complementary, and should be pursued simultaneously wherever they are not contradictory. For example, a successful international commodity agreement to reduce price fluctuations for a particular commodity should be used as an opportunity for diversifying the range of the agricultural exports of East Africa in line with her cost advantage; in such a case the agreement should be regarded as a short-run measure to enable the East African countries to adjust to long-term trends of demand and supply. The most sound economic argument in this respect is that an international commodity agreement should be used to prevent short-lived price changes which do not have a useful role for the purposes of resource allocation being passed on to producing countries, especially as these fluctuations may significantly affect the implementation of plans as a result of balance of payments crises.

Foreign exchange proceeds from the sale of agricultural exports are dependent on the volume of exports on the one hand and the level of world commodity prices on the other. The importance of making this obvious distinction is that the volume of exports is a variable over which individual countries have some control (subject, of course, to the vagaries of nature) whereas they have very little or, more generally, no control over the prices they receive for their exports as they are, for the most part "price takers". On the other hand the effects of world price movements on the export earnings of an individual country would, to a large extent,

depend on the range and diversity of the commodities exported by that country. This affords a very good connection between measures designed to increase the volume of agricultural exports and those intended for diversifying them. The fact that the volume of agricultural exports has to be expanded means that diversification of exports can be undertaken without reducing the export of existing commodities, but by merely producing new types of export commodities. It is conceivable that in some cases it would be in the short-run national interest to expand the production of existing commodities in line with their present profitability to producers.* Looking at the problem in this way gives the concept of diversification a different complexion; diversification is then accomplished not necessarily by reducing the production of existing commodities, but by adding new ones with emphasis perhaps shifting from one crop to another in the light of changing present knowledge about the future.

An increased volume of agricultural exports can be achieved if either, other things being equal, more resources are employed in the production of these exports, or existing resources are utilised more fully. In practice, both measures have to be employed simultaneously although, in the short run, the former measure may be the easier to follow. Among the different means for pursuing these measures are such things as reform of the marketing system and land tenure; the adoption of better techniques of production; and the provision of economic incentives to the farmers to produce more. This is a very broad field about which a study of this sort cannot say very much, but looking at the East African scene, it is possible to specify policies which have got these objectives, such as group farming schemes, settlement plans and the encouragement of co-operative marketing.

A policy oriented towards changing the composition of agricultural exports and involving diversification of the export sector, ought, ideally, to be based on some estimate of returns to the farmer from different enterprises, projected into the future. It is important in this respect to emphasize that it is really future returns in which we are primarily interested since in agriculture most commodities have a long period of gestation, so that it is not satisfactory to base

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* It must be emphasized that diversification as an objective can only be achieved at a price: the price of failing to exploit short-run profitable opportunities. Opinions can of course differ on the magnitude of the price to be paid in order to achieve certain degrees of diversification.

production plans on present returns alone. This would entail projecting, and in some cases, forecasting costs and prices of various commodities some way into the future, and drawing up production targets accordingly. For obvious reasons, such an exercise must start with a thorough knowledge of the present profitability of the various major enterprises; but since part of the policy objective must be to diversify exports, this exercise must encompass commodities which perhaps have never been grown before on a commercial scale in the country. This kind of exercise must also take into consideration the technical data relating to the production of these commodities so that, in fact, the amount of work involved can be quite formidable. For example, Chapter 4 of this study was confined to an examination of future price trends of a few commodities as a way of suggesting the sort of work which may have to be embarked upon, or intensified, in this field in East Africa. More information relating to costs of production, social attitudes to the production of different crops, technical information concerning physical requirements for various crops etc. would have to be obtained before this information can be translated into extension advice to farmers.

The magnitude of the task involved should not, however, deflect our attention from the need to diversify the agricultural exports of the East African countries, and for adjustment to long-term price trends. The danger facing Uganda of 'having all her eggs in one basket' (or strictly, in two baskets) has been discussed in Chapter 3 while admitting that in the short run it might have been more profitable not to diversify her exports. Adjustment to changes in market situations is necessary in order to ameliorate the effects of adverse terms of trade. The required changes may be between sectors or within individual sectors: the changes relevant to this study relate to the latter.

International measures

International measures will be discussed primarily with regard to the need to achieve greater stability in the export earnings of the East African countries, rather than as means for increasing the volume of agricultural exports from these countries. This is because, although it is known that the removal of obstacles to trade in agricultural commodities on an international scale would, to a certain extent, increase exports from developing countries, indications

are that this change would be of a once-and-for-all nature, and would not of itself ensure that the quantum of agricultural exports would go on rising. The demand for agricultural exports is unlikely to rise fast enough even after the removal of obstacles to trade; this, after all, has been the experience even within single countries where such obstacles do not exist. Accordingly, it is in the area of stabilizing prices and earnings from agricultural commodities that international action is likely to be more effective.

There is a considerable amount of literature on the problems of stabilizing the prices and incomes received by primary producing countries, which it is not necessary to recount here.* Our main task is to try to indicate some of the international arrangements connected with stabilization which the East African countries could support, and what their approach should be towards them. Broadly speaking, these can be divided into two: there are arrangements, such as the International Coffee Agreement whose aim is primarily to stabilize world *prices*, while there is another group of schemes designed to stabilize the *export earnings* of primary producers in the short run.** Examples of measures of the latter type will be given from the four leading proposals for compensatory financing for export fluctuations put forward by the United Nations, the International Monetary Fund, the Organisation of American States, and by the Government of Tunisia.

International commodity agreements

The basic economic justification for international commodity agreements is that where the demand for a commodity is inelastic the total revenue accruing to the producers of that commodity, as a group, would fall if they were to allow prices to fall. Accordingly, it is in the interests of the group that prices are not allowed to fall: this has always been recognized but lately the argument has become more compelling when the group of producers concerned is identified as being very much poorer than the consuming group, with the connotation that such a fall in revenue represents a transfer of income in the wrong direction to that deemed desirable. Moreover

* For instance, a whole issue of *Kyklos* in 1959 was devoted entirely to this problem: *Kyklos*, 12 (1959).

** It has always been argued, in this respect, that for individual countries stabilizing prices alone could de-stabilize their incomes because of changes in the volume of exports, and hence the need to focus attention on income stabilizing schemes as well as on those intended for stabilizing prices.

the producers, on their part, are engaged in the production of commodities whose supply, in the short run, is highly inelastic; and in addition they are so dispersed that, following independent policies which they believe to be in their own interests, in the end they spoil the game for everybody. It has, therefore, been argued that it is only by organising themselves on a global scale that they can safeguard their interests, and in fact some system of international commodity agreements has been strongly recommended by the United Nations Conference on Trade and Development which took place in Geneva in 1964.[1]

With this kind of reasoning, international commodity agreements designed to even out short-run fluctuations in prices command considerable sympathy among economists; the major trouble with such arrangements starts when short-run motives of price stabilization become confused with motives for increasing the incomes of primary producers by fixing prices which result in losing touch with the long-run equilibrium level of prices. The approach and attitude of the East African countries to such agreements ought to be guided by three major considerations.

The first consideration is that they should pay attention to the profitability of the crop for which an agreement is to be negotiated as compared to other crops produced in East Africa, not only for export but also for domestic consumption. When a certain commodity can be produced in larger quantities, even when its price were to fall a restriction of its production would represent a misallocation of resources within that country. It happens, for instance, that although coffee prices have been falling sharply over the last few years coffee still remains a relatively attractive enterprise compared to the production of many commodities. In such a situation the restriction of coffee production in order to maintain high prices would force resources into less profitable channels. In this respect the firm stand taken by the East African Governments against an international tea agreement is a move in the right direction.

Secondly, it is important for these countries to know, even if in rough terms, how their costs of production compare to the costs of producing the same commodity in other producing countries, especially the major producing countries. This is very difficult to estimate mainly because of the use of different currencies, and the difference in opportunity costs of the same resources in different countries. Nevertheless, it is a fact that some countries' costs of

producing the same commodity are much higher than others, in which case a low cost producing country should not be as eager about a restriction scheme as the high cost producers.

These two considerations are extremely important, and their importance derives from the fact that short-run measures intended for evening out price fluctuations do have undesirable long-run effects in so far as they do not take into account the comparative advantage different countries have in the production of particular commodities, but instead base their quotas on some average level of production or exports over a previous period. This, in effect, means that industries which have developed under strong government assistance and subsidies are ranked almost the same as those which are more efficient, for the purposes of allocating quotas.* It seems obvious that the East African countries should be interested in schemes designed to even out short-run fluctuations in prices, but they should be on the look-out for long-run effects resulting from these arrangements, and the above two factors can act as a guide to the viability of the industry in East Africa in the long run.** The aim should be that these countries should not be forced to diversify into uneconomic lines of production for the sake of short-run considerations alone, and that a right balance should always be struck between these two competing objectives.

The third factor to watch is the cross-elasticity of demand for the crops produced by these countries in relation to those of other countries. An example will make this point clear. Uganda robusta coffee commands very good prices because it makes good instant coffee, but it is also reported that Brazilian coffee could be used for instant coffee production, and that perhaps it would make a better product.[2] At existing levels of prices, however, the instant coffee manufacturers cannot afford to use Brazilian coffee, but

* I am now assuming that an international commodity agreement would have the attribute of restricting exports, and possibly production. This need not always be so, but the most important and effective ones do; the usual pattern being that supply restrictions increase total revenue (or prevent it from falling) for the producers as a group, and the allocation of export quotas determines the gains which accrue to each of the participants. This assumes that the demand curve, within the relevant price range, is inelastic.

** It is abundantly clear that in many cases the attitude of the East African countries, either individually or as a group, may not be the deciding factor as to whether an international agreement is eventually agreed upon, in which case they would face a lot of discrimination if they refused to co-operate. But for some commodities such as sisal, coffee and cotton their point of view would be respected. In any case, their attitude could differ from what they eventually agree upon.

there is a great possibility that if the general level of coffee prices fell the trade, rather than lowering instant coffee prices, would go in for the superior product, and this would adversely affect the sales of Uganda's coffee. And there are a number of other commodities to which this kind of phenomenon applies. It was, for instance, noted in Chapter 4 that sisal is in the same position with respect to abaca. All that this means is that these countries should never allow prices to fall to those levels where the demand curve for their products is highly inelastic—in other words where East Africa's commodities become "inferior" goods.

On the other hand, a restriction scheme which raised prices too high might invite competition from new sources of supply which may prove extremely difficult to compete against once they are established. This has happened to Brazil with regard to coffee where in the 1950's she found herself in a position of having almost no control over market prices because of the success of her valorization schemes in the thirties. New competition may also take the form of the production of man-made products whose production, in the first instance, is made economically possible because of high prices for the natural product, but which, once established, becomes more competitive due to the economies of large-scale production and the greater ability to introduce innovations in manufacturing industries.

Proposals for compensatory financing[3]

Various proposals have been made by different international bodies to establish systems of financial compensation for export fluctuations, and thus at least partly to stabilize export earnings for developing countries. Their main concern is to prevent abrupt shortfalls in export proceeds which are harmful to the success of development plans. While there are significant differences in their content, they have a common emphasis on short-run stabilization, and are not intended to do more than soften intermediate-term declines in a country's export proceeds. These can only be dealt with by structural changes within the country, or for a limited number of products by international commodity agreements.

Four of these proposals are compared in this study. Table V:1 provides a comparative summary of their main provisions with respect to defining an export shortfall, determining compensation, repayment conditions, financing and estimated costs.

The first proposal is that made by a Committee of Experts appointed by the United Nations Secretary-General in 1960 to examine "the feasibility of establishing machinery, within the framework of the United Nations, designed to assist in offsetting the effects of large fluctuations in commodity prices on balances of payments, with special reference to compensatory financing . . ."[4]

In setting their standard, the UN experts considered that any shortfall in export earnings from a moving average of the previous three years should attract attention with a view to compensation. Their proposal was designed to have certain attributes of social insurance, notably a structure of premiums and benefits which would transfer resources from developed to underdeveloped countries. The fund was to be set up in the first instance by initial subscriptions to provide working capital, and then kept going by annual premiums assessed on member countries as a percentage of the value of their exports. Alternatively, for developed countries only, per capita income might be taken into account in assessing contributions.

Compensation would be paid out automatically to member countries to the value of 50 per cent of any export shortfall beyond a certain minimum deduction, which might be set between $2\frac{1}{2}$ per cent and 10 per cent. In their Type 1 proposal, as with social insurance, such compensation would not be repaid. Annual premiums in the order of 0.5 per cent of exports would probably be needed, with a minimum deduction of 5 per cent. If the UN Type 1 proposal had been in effect from 1953 to 1959, it would have had an average annual cost of $468 million, of which developing countries would have contributed $142 million and received $383 million.

The proposal of the Organization of American States defines shortfalls in the same way but the methods of compensation and financing are different.[5] Financing would be by initial contribution only, of which developed countries contribute two-thirds and waive benefits. Developing countries would be compensated to the extent of 67 per cent of any shortfall as defined above, without a minimum deduction. Instead of annual premiums, the fund would be kept going by repayments; thus 67 per cent of any surplus in future years must be applied to repayment of existing credits, and if any credits are outstanding for over three years, they must be paid off half in the fourth year and half in the fifth year regardless of the magnitude of shortfalls or surpluses. This proviso ensures that the fund will not run out of resources, and also demonstrates

that the function for which the fund was designed is short-run stabilization. It is also proposed that a low rate of interest should be charged on outstanding credits to defray administrative costs. If the OAS scheme had operated from 1952-60, it would have paid average annual benefits to developing countries approximately the same as in the UN proposal, but of course all would have been repayable.

The International Monetary Fund takes exception to both the UN and OAS experts on the way they define a normal level of exports.[6] On the basis of statistical calculations by their staff members, the IMF argues that a formula giving more weight to the current year (50 per cent) and combining it with the previous two years (25 per cent each) provides a more reliable estimate of a normal level of exports. In their view: "The fact that exports in any given year have been lower (or higher) than they were in preceding years is very often an indication of a downward (or upward) trend which may well persist for some years to come."

More fundamentally, the IMF argues that a new automatic compensation scheme is neither necessary nor desirable. They present data suggesting that present reserves and IMF quotas are adequate to cover the maximum export fluctuations of the last decade for all but a few countries. They also contend that international credit should be extended only after considering all aspects of a country's balance of payments situation.

However, the IMF has at the same time announced a policy of greater readiness to extend credit to developing countries faced with export fluctuations—up to 25 per cent beyond the country's normal use of its IMF quota. Like all IMF credits, such loans would depend on the IMF being satisfied that the member country is itself trying to cover the deficit, and is in addition making reasonable attempts to avoid long-term declines in her export proceeds.

The proposals described so far limit export proceeds to merchandise items in the balance of payments. The proposal by the Tunisian Government, while retaining the idea of a moving-average norm, urges that export proceeds should allow for net invisible items, such as transport and insurance services, tourism, foreign loan repayments, etc.[7] They argue that the movement of some of these invisibles is sometimes such as to nullify surpluses on merchandise account. They also propose that the purchasing power of exports should be taken into account, although they do

not grapple with the difficult technical problem of determining changes in terms of trade.

The greater complexity of the Tunisian approach is related to their view that considerable discretion should be exercised by the agency administering the system. Other factors besides trade figures should be taken into account in deciding on the amount of compensation. These they refer to as "adventitious", cyclical or structural factors characterising the shortfall country. After allowing for these factors, normally 75 per cent of the shortfall should be compensated. Compensation should be in the form of a loan repayable in good years within the next three years. However, since a smaller proportion of any future surpluses, e.g. 50 per cent, would be applied to loan repayment, and any credits outstanding for more than 3 years would be written off, the Tunisian proposal does imply a net drain on the fund. For the provisions indicated in Table V.1 the Tunisian scheme would cost about three-fifths as much as the UN proposal.

One final feature of the Tunisian proposal needs to be mentioned. This is the emphasis on the need for a high level of foreign exchange reserves for developing countries, in order to maintain confidence in their currency abroad and be able to attract foreign capital for development. This constraint would more or less rule out the possibility of running down reserves to meet unforeseen contingencies and call for even greater reliance on the compensation system.

Effects of various proposals on Uganda, Tanganyika and Kenya

Tables V.2 to V.5 show the effects of applying the UN and OAS proposals to the exports of the East African countries for the period 1952 to 1962. The results may be summarised as follows.

Uganda

Under the UN proposals Uganda would have paid contributions amounting to £2.3 million and would have drawn benefits of the order of £4.6 million over the 11-year period (see Table V.2). The ratio of benefits to contributions here works out at 2 to 1, which is attractive though still below the average of nearly 3 to 1 which the UN experts calculated for developing countries as a group from 1953 to 1959. More than half of the benefits would have been drawn in 1953 with smaller sums being received in 1960, 1961 and 1962.

Under the OAS proposals Uganda would have received stabilization credits in 1953 and 1954 of £6.4 million. During the next four years she would have paid them off. This would have had the effect of narrowing the range of variation in her export proceeds by about two-thirds over the period 1953 to 1958: £33.4 million to £45.9 million without compensation as compared to £38.5 million to £42.9 million with compensation.

After 1959 Uganda's exports proceeds began to fall continuously to the end of the period mainly because of a downward trend in prices. This would have made Uganda more dependent on the fund, drawing credits to the tune of £7.3 million during the next four years. These credits would of course have to be repaid in succeeding years, which might be readily accomplished if exports recovered, but which would be very difficult if they stayed depressed.

Tanganyika

Tanganyika would have obtained compensation in 1953, '54 and '55 amounting in total to £2.3 million under the UN scheme but her contributions over the entire 11-year period would have been nearly £2.4 million (see Table V.3). This result is obtained because, since 1955, Tanganyika has not had any shortfalls in her export proceeds, although there were fairly large fluctuations in the prices for her exports. Her rising volume of exports has offset short-run price declines. On the other hand since contributions are assessed on the basis of value of exports her contributions would have been virtually the same as for Uganda.

Under the OAS scheme Tanganyika would have received credits for the same years, 1953, '54 and '55, totalling £6.2 million. She would have been able to pay off these credits entirely within the next two years—in fact £6.1 million in 1956 alone—because of a favourable upturn in her exports. Without such credits her exports would have ranged between £34.3 million and £44.8 million in the period 1953 to 1958, but with this scheme in operation the range would have been reduced to £36.0 from £39.0 million.

Kenya

Kenya would have participated least of all in either the UN or the OAS schemes, partly because of her smaller export value but mainly because of her comparatively stable and rising trend in export earnings (see Table V.4). Under the UN plan, she would have

received benefits in 1953 and 1954 amounting to £1.7 million, against premiums over the 11-year period of £1.6 million. Thus like Tanganyika she would have substantially broken even.

Under the OAS scheme she would have received credits in 1953 and 1954 amounting to £3.8 million, and been able to pay them off during the next two years. This would have approximately halved the range of her export proceeds variation; from £19.5—£29.0 million without compensation to £21.4—£26.5 million with compensation.

East Africa

To sum up, Uganda would have been a net gainer under the UN proposal, though less than the average for all developing countries as a group, while Tanganyika and Kenya would have approximately broken even. All three countries would have enjoyed more stable export earnings under the OAS scheme than without it, Uganda drawing most heavily on the fund, then Tanganyika, and then Kenya. Because of their comparatively favourable export trends, the three East African countries have greater interest in the stabilization aspect of an international compensation scheme than in net transfer of resources to lagging countries.

It may also be noted that the amount of compensation accruing to the East African countries would be reduced if East Africa joined these schemes as one block, except in those years when all the countries have a shortfall (see Table V.5). This is because for the region as a whole surpluses in one country tend to offset shortfalls in another country thus rendering the whole region ineligible for compensation. Thus compensation would have been paid to East Africa under both schemes only in 1953 and 1954, and premiums would have exceeded benefits by about £0.6 million under the UN scheme. Of course for a stabilization plan like that of the OAS, reduced use of the international fund simply reflects the automatic stabilization resulting from the larger East African pool, but to enable each country to share in the same way in this automatic stabilization, compensatory loans within East Africa would also be needed.

If this past experience is any guide to the future, the East African countries would have distinctly greater interest in measures tied to price changes for their key primary exports (which after all comprise a large percentage of their total exports) than in measures

Table V.1

COMPARISON OF FOUR SCHEMES FOR COMPENSATORY FINANCING OF EXPORT FLUCTUATIONS

	United Nations Exports[a]	*Organization of American States*[b]	*International Monetary Fund*[c]	*Tunisia*[d]
1. *Definition of export shortfall.*	Merchandise exports more than 5 per cent below average of previous three years.	Merchandise exports below average of previous three years.	Merchandise exports below average of current weight 50 per cent and two previous years.	Exports plus net invisible, adjusted for import prices, more than 5 per cent below average of previous three years, allowing for "adventitious factors".
2. *Nature of compensation.*	Automatic payment of 50 per cent of shortfall.	Automatic loan of 67 per cent of shortfall.	Discretionary loan normally up to 25 per cent of IMF quota, supplementing regular IMF loans & reserves.	Discretionary loan about 75 per cent of shortfall, allowing for "adventitious factors".
3. *Repayment conditions.*	Not repaid.	Repayment 67 per cent of excess over 3-year average, plus half of all credit outstanding over three years.	Repayment according to regular IMF procedures.	Repayment 50 per cent of excess over 105 per cent of 3-year average; credits might be written off after three years.
4. *Financing.*	Initial subscription plus annual premiums based on exports (or GDP for developed countries); developed countries contribute about 70 per cent and receive about 20 per cent.	Initial capital only; developed countries contribute 67 per cent and waive benefits.	No special financing.	Initial subscription plus annual premiums based on unspecified combination of nat. income, export dependence, export instability.
5. *Calculated gross cost or benefits*[e] *(mil. $)*	1953-59: $2684 UDC; 595 Dev.; 3279 Total (468 per yr.) (383 for UDC)	1952-60: $3291 UDC; — Dev.; 3291 Total (366 per yr).	Not comparable.	1953-60: ? UDC; ? Dev.; 4905 Total (614 per yr.)
6. *Net cost*[e] *(mil. $)*	Same as gross.	Initial capital $1800; maximum credit outstanding 1952-60 $1441		$2260 (282 per yr.)

Notes:

(*a*) U.N., *International Compensation for Fluctuations in Commodity Trade*, 1961.
Provisions listed in the table are for Type I plans, with non-repayable settlement of claims. Loan plans were also considered, as well as variants, e.g. minimum percentage decline in exports, and other details not shown in the table.

(*b*) Organization of American States, *Final Report of the Group of Experts on the Stabilization of Export Receipts*, May 1962.

(*c*) International Monetary Fund, *Compensatory Financing of Export Fluctuations*, Feb. 1963. Definition of export shortfall is used only in the calculation comparing needs and reserves, but it is argued that this formula is closer to an "ideal" norm, represented by a 5-year moving average centred on the current year, than UN and OAS formulas. The policy statement specifies only that IMF will establish reasonable estimates of the medium-term trend in exports, using statistical data and judgment about export prospects.

(*d*) Government of Tunisia, *Instability in Commodity Trade and International Machinery for Compensatory Financing*, UN document E/Conf. 46/PC/4, April 1963. Provisions listed in the table are for Plan J, one of seventeen for which calculations are made, and among the lowest in net cost.

(*e*) Countries included are not identical, but the differences are not believed to affect relative costs significantly.

(*f*) The distribution of the cost or benefits of the Tunisian proposals between developed and developing countries cannot be calculated because of the many unspecified criteria for assessment and compensation.

Table V.2

UGANDA: POSSIBLE BENEFITS FROM OAS AND UN PROPOSALS

Year	Export Value (£'000)	3-Year Moving Average	Deviation (£'000)	Deviation %	OAS Compensation[a] (£'000)	UN Compensation[a] (£'000)	UN Contribution[b] (£'000)
1949	23,433						
1950	28,669						
1951	47,197						
1952	47,223	33,100	+14,123	+43			
1953	33,379	41,030	− 7,651	−19	+5,100	+2,800	
1954	40,575	42,600	− 2,025	− 5	+1,350		
1955	41,902	40,392	+ 1,510	+ 4	−1,006		
1956	40,418	38,619	+ 1,799	+ 5	−1,200		
1957	45,857	40,965	+ 4,892	+12	−3,262		
1958	45,409	42,726	+ 2,683	+ 6	− 982		
1959	42,091	43,895	− 1,804	− 4	+1,202		
1960	41,588	44,452	− 2,864	− 6	+1,910	+321	
1961	39,195	43,029	− 3,834	− 9	+2,556	+842	
1962	37,635	40,958	− 3,323	− 8	+1,615	+638	
TOTAL:					7,283[c]	4,601	2,276

Notes: a. See Table V.1 for formula used.

b. Based on 0.5 per cent of export value, as indicated in UN report, for scheme with 5 per cent deduction.

c. Maximum cumulative credit received.

Table V.3

TANGANYIKA—POSSIBLE BENEFITS FROM OAS AND UN PROPOSALS

Year	Export Value (£'000)	3-Year Moving Average	Deviation (£'000)	Deviation %	OAS Compensation[a] (£'000)	UN Compensation[a] (£'000)	UN Contribution[b] (£'000)
1949	19,233						
1950	23,768						
1951	39,343						
1952	47,020	27,448	+19,572	+71			
1953	34,545	36,710	− 2,165	− 6	+1,444	+ 115	
1954	36,251	40,303	− 4,052	−10	+2,702	+1,019	
1955	36,188	39,272	− 3,084	− 8	+2,056	+1,120	
1956	44,805	35,661	+ 9,144	+26	−6,096		
1957	39,431	39,081	+ 350	+ 1	− 106		
1958	41,707	40,141	+ 1,566	+ 4			
1959	45,287	41,981	+ 3,306	+ 8			
1960	54,854	42,142	+12,712	+29			
1961	48,667	47,283	+ 1,384	+ 3			
1962	51,241	49,603	+ 1,638	+ 3			
TOTAL					6,202[c]	2,254	2,399

Notes: See Table V.2.

Table V.4

KENYA—POSSIBLE BENEFITS FROM OAS AND UN PROPOSALS

Year	Export Value (£'000)	3-Year Moving Average	Deviation (£'000)	Deviation %	OAS Compensation[a] (£'000)	UN Compensation[a] (£'000)	UN Contribution[b] (£'000)
1949	10,964						
1950	17,182						
1951	24,068						
1952	25,792	17,405	+ 8,387	+48			
1953	19,521	22,347	− 2,826	−13	+1,884	+855	
1954	20,260	23,127	− 2,867	−12	+1,912	+856	
1955	25,667	21,858	+ 3,809	+17	−1,270		
1956	28,983	21,816	+ 7,167	+33	−2,526		
1957	26,361	24,970	+ 1,391	+ 6			
1958	29,300	27,004	+ 2,296	+ 9			
1959	33,306	28,215	+ 5,091	+18			
1960	35,191	29,656	+ 5,535	+19			
1961	35,326	32,599	+ 2,727	+ 8			
1962	37,913	34,608	+ 3,305	+10			
TOTAL					3,796	1,711	1,588

Notes: See Table V.2.

Table V.5

EAST AFRICA—POSSIBLE BENEFITS FROM OAS AND UN PROPOSALS

Year	Export Value (£'000)	3-Year Moving Average	Deviation (£'000)	Deviation %	OAS Compensation[a] (£'000)	UN Compensation[a] (£'000)	UN Contribution[b] (£'000)
1949	53,630						
1950	69,619						
1951	110,608						
1952	120,035	77,952	+42,083	+53.9			
1953	87,445	100,087	−12,642	−12.6	+ 8,428	+ 3,819	
1954	97,086	106,029	− 8,943	− 8.4	+ 5,962	+ 1,821	
1955	103,757	101,522	+ 2,235	+ 2.2	− 1,490		
1956	114,206	96,096	+18,110	+18.8	−12,074		
1957	111,649	105,016	+ 6,633	+ 6.3	− 826		
1958	116,416	109,871	+ 6,545	+ 6.0			
1959	120,684	114,090	+ 6,595	+ 5.8			
1960	131,633	116,250	+15,383	+13.2			
1961	123,188	122,911	+ 277	+ .2			
1962	126,798	125,168	+ 1,621	+ 1.2			
TOTAL					14,390[c]	5,640	6,263

Notes: See Table V.2.

tied to value of exports. If a system had been in operation which provided compensation whenever prices fell more than 5 per cent below a moving-average norm, Uganda would have received larger benefits or loans in 1959, 1960 and 1961 than under the UN and OAS schemes, while Tanganyika and Kenya would have become eligible for benefits or loans in 1957 and 1958.

The UN mandate to the committee which investigated this problem implied that it was large fluctuations in commodity prices which were responsible for fluctuations in export earnings. Within the limitations of the vagaries of the weather and natural forces, developing countries can plan the volume of their exports, but, with rare exceptions, they cannot influence the price they receive. Thus there are also general grounds for feeling that price is the variable on which concerted international action were better concentrated.

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Agricultural export development

It is now widely accepted that the agricultural sector is of crucial importance in the economic development of East Africa. For the foreseeable future agriculture will be the only source of income for the majority of the population. Any plans to improve the living standards of the masses must therefore concern themselves with increasing agricultural productivity. In this radical study Yoeri Kyesimira brilliantly documents the key role agricultural export development can play in capital formation in East Africa. He also shows that 12 major agricultural commodities constitute about 80% of East Africa's total value of exports and concludes that there is an absolute necessity for the East African governments to adopt a strategy of diversifying the range of agricultural exports.

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