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THE STRUCTURE OF THE KENYA ECONOMY

By

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This paper is a tentative step towards a larger study of the growth and structure of the East African economy. As such, it attempts to produce a synoptic view of the economy based on existing data to provide initial insights on which the study as a whole can be built. In so doing use is made of data which, at a later stage, deserves to be reworked to a substantial degree.

THE STUDY OF ECONOMIC GROWTH & STRUCTURE

1. This study is an exercise in applied macro-economics. The data used are economy-wide aggregates or industrial and sectoral observations. There is no disaggregation to the level of the individual firm or consumer budget. The purpose of such an applied study is two fold. It will provide historical evidence for economists to evaluate the validity of their generalizations regarding processes of economic growth. It will provide a framework of policy decisions regarding future development policies.

2. We will be asking as we proceed on the one hand which of the available theoretical tools are of use in the East African context and on the other what are the orders of magnitude of the parameters in the macro-economic and inter-sectoral relationships we decide are important.

3. At this stage we have not yet arrived at a formal model for the operation of the East African economy. The strategy in the preparatory stage is to divide the task of describing the growth and structure of the economy into three areas:-

(a) The structure of the economy at a given point in time

This will include the input-output relationships between domestic industries and between those industries and the foreign trade of the economy; the relationship between the input structure and income structure; the division of the outputs as between final uses; finally, the relationship between the income structure and the final uses. This task is to be completed for the end of the period of study both because of the availability of data at that point and because information on structure for the most recent period will be most valuable for planning purposes.

(b) The development over time: the demand side.

Growth and fluctuations in economic activity can be investigated by studying the sources of effective demand. The isolation of this question from problems of supply, such as the determinants of input payments and factor shares and the availability of productive capacity, is artificial. In a final model all the interdependencies will be made explicit. At the earlier stage, however, the piecemeal approach is inavoidable.

(c) Development over time, the supply side.

On the supply we shall be interested in the changing quantity and quality of input supplies , the productivity of such inputs, the development of domestic inter-industry relationships, and the changing role of imported supplies. There will be a second area of interest - the product specialization of the economies and its responsiveness to price effects and to public policy tools.

This paper presents the preliminary work on part (a).

The structure of the Kenya Economy 1957.

Eventually a study will be developed of inter-industry relationship for the East African economy for 1957, 1961 & 1963. To provide some idea of the method and of the structure of the Kenya economy some preliminary results on the structure of the Kenyan economy in 1957 are set out here.

Table 1 represents the first step towards an input-output table for the Kenyan economy. It is incomplete in a number of respects. The agricultural sector should be shown in a much finer breakdown and its inputs, as yet unallocated, will be identifiable with the aid of the Kenya agricultural surveys. For identified and subdivided between various categories of imports, although some part is also unidentified domestically produced inputs and a small proportion represents various services purchased by the industries concerned but not identified in detail in the Survey of Industry data on which the table is partly based.

The table when completed will also include a section showing the end uses of the gross domestic product plus imports.

Also, the data on distribution on which column 19 is partly based is surely suspect and can be improved with the help of the 1960 Survey of Distribution.

The preliminary nature of the table having been accepted, what does its broad outline, probably a correct picture, tell us? In practise a similar table for 1963 will be for more useful for planning purposes but the exercise of examining this table for 1957 will illustrate the method.

In the table, 21 sectors are identified as sources of gross domestic product, including one large catch-all category for distribution, rent, services and utilities. Of these, direct primary production involves 1-3, manufacturing in one form or another 4-17, construction 18, transport 19, the forementioned catch-all category 20 and government 21.

The value added constribution of each of these groups is shown in table 2.

TABLE 2. THE VALUE ADDED CONTRIBUTION TO GDP BY MAJOR GROUP, 1957.

		£ THOUSANDS.
A.	PRIMARY	54700
B.	MANUFACTURING	19550
C.	CONSTRUCTION	11800
D.	TRANSPORT	17200
E.	SERVICE, DIST., RENT & UTILITIES	50350
F.	GOVERNMENT	19800
	TOTAL GROSS DOMESTIC PRODUCT.	153,400

The first point that should be made in relation to these figures is that they are for monetary activity and exclude the large amount of primary production which does not give rise to recorded monetary transactions and which is the main source of food, shelter and warmth for more than 90% of the population. If this activity were measurable on a basis similar to monetary transactions the primary sector would play an even more important role than it appears to in these figures. In fact the East African Statistical Department provided an estimate that the output of food and wood alone outside the recorded monetary economy, valued at local market values, was £51,700 thousand. If this evaluation were accepted it would raise the total primary output to £86,400 thousand out of a total G.D.P. of £205,100 thousand.

The large role of transport and of distribution is indicative of the degree to which the monetary economy is an international trading economy, a fact further emphasised by the limited number of inter-industry connections in the input-output structure. This latter fact might prove less evident if further investigation identifies significant parts of the unallocated inputs as originating in domestic output.

A more careful look at sectors 4-17 indicates why the input-output relationships are so fragmentary. Six of the fourteen industries produce finished consumer's goods. These were food, drink, furniture, printing, miscellaneous in. tobacco, and textiles, clothing and footwear. The last case could have some considerable inter-industry relationships within the sector, but the evidence available suggests that this was not so in 1957. Five of these industries produced almost entirely for a domestic market; the food industry as an exception was partly concerned with processing primary output for the export markets. Forward linkages were not possible for this group while backward linkage was predominantly to the primary sector (printing to the import sector). All these industries are also characterized by a fairly simple technology. Together these industries contributed £8,850,000 value added to the £19,550,000 in manufacturing. In this area the existense of import substitution possibilities at that time is indicated by the £9,750,000 textile imports and, less certainly, by the £3,750,000 food import item.

In the remaining eight industries three can be identified as potentially of considerable forward and backward linkage - machinery and repairs, transport equipment and repairs and metal products. With the first two the emphasis was on repairs using imported materials, with some body-building activities. In all three cases the backward linkage was almost entirely to the foreign sector. The limit on the development of this type of activity is basically twofold - the availability of technology and the limited industrialization of the economies. These are industries which live off of the growth of other industries, a mechanized agriculture, or a substantial consumer durables market. These three industries contributed £5,100 thousand valued added to gross domestic product.

Two industries which form links between the primary producer and other industries are timber and leather; the second is quite insignificant. The first is a relatively large industry of simple technology composed predominantly of a large group of medium size establishments (i.e. over 90% of employees are in establishments with 50 or more employees).

The remaining two industries of importance are chemicals and non-metallic mineral products (mainly building materials). Chemicals consists of a consolidation of three seperate industries - the most important being the basic chemical industry, responsible for two thirds of gross output, mainly soda ash and wattle extract. This industry thus contains an element of primary activity. The second important element was soap production for East African consumption, based on local materials. The third element is a miscellaneous category of chemical products - pharmaceuticals, insecticides (including pyrethrum processing) and paints. The chemicals industry is thus primarily based on the local primary resources, producing for the export market, and secondarily the production of consumer goods for the domestic market, based on local materials. The non-metallic mineral products industry primarily produced inputs for the domestic construction industry and as with chemicals, because of the integrated nature of the structure, includes an element of primary production.

To summarize regarding the inter-industry relationships, the construction industry proved particularly important in providing backward linkages both because of its large size relative to the economy during this period and because of the bulky nature and straightforward technical character of its inputs. Textiles and clothing have potentially good backward linkage and room for general expansion; this proposition has been confirmed by subsequent developments. Similarly from this table there was evidence of the possibility of an expanding paper pulp industry. The combined imports of chemicals, machinery and equipment and metal products of about £30 million is an indication both of limited nature of the existing industrial development and the difficulties of further progress; these categories contain many items of high technical complexity, some where the economies of scale will render the domestic market insufficient to support a local industry and, together,

they form a group with complicated interrelationships and potential economies external to the plant but internal to the group as a whole; also their output must form the basis of industrialization efforts.

From the point of view of development planning two interesting conclusions may be drawn. Construction activities, the basis of social overhead development and of urban development, could be undertaken with relatively small direct impact on the import bill, whereas, investment in machinery and equipment, the basis of industrialization, would be to a very substantial degree reflected in the imports bill. The corollary of this conclusion is that the multiplier effect on domestic activity of construction activity would be much agreater than that of investment in machinery and equipment. If the basic constraint on the development programme is the availability of foreign exchange then construction will be more practicable than investment in machinery and equipment. On the other hand if the basic constraint is the pressure on domestic capacity then construction activity is less practicable.

NOTES ON THE TABLE

1. The basic sources of data used in compiling this table were the Kenya Survey of Industrial Production; 1957, Domestic Income and Product in Kenya: A description of Sources and Methods with Revised Calculations from 1954 to 1958, and the Annual Trade Report, 1957.

2. The sum of the net output row is equal to gross domestic product for 1957 at factor cost.

3. The unallocated inputs are mainly services and imported inputs not domestically produced. The large item under agriculture will be partly allocated in a subsequent version of the table with the aid of the agricultural survey for Kenya. The large unallocated item under construction includes about £4 million of structural steel.

4. Imports are net home consumption plus duties. They are allocated between industries roughly according to whether they would be outputs of those industries, if produced domestically.

   A gap which will be remedied in a subsequent version is caused by the non-inclusion of interterritorial trade. This will be much more important when a final uses section is added to the table.

   Imports of drink are shown net of duty payments.

5. The section "Miscellaneous including Tobacco" should be numbered as the 17th. Sector in the table.

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NEXT STEPS FOR INDUSTRIALIZATION IN EAST AFRICA*

1. Industrialization policy is simultaneously the greatest present source of economic tension within the East African common market, and the greatest potential source of economic gain from closer East African integration. It is of more than passing interest to consider, therefore, what are the most constructive and economically feasible next steps in industrialization policy, to limit the risks of disruption of the common market and to seize as much as possible of the potential economic gain. If full political federation is delayed or indefinitely postponed, these next steps should make the common market much more attractive and viable. If agreement on full political federation is reached promptly, they should provide the basis for assumption of federal responsibility. Thus both optimists and pessimists about federation might find common ground in these next steps.

2. The purpose of this brief paper is simply to present some specific ideas about next steps in industrialization policy, as a stimulus to further thought. I have been stimulated myself by the papers and discussion at the Conference on East African Federation, sponsored by the University of East Africa, in Nairobi, November 26-30, 1963.

3. Industrialization policy in East Africa should be aimed not at one, but at two, objectives. These twin objectives are (a) to raise dramatically the total rate of industrial investment in East Africa, and (b) to ensure that future industrial investment is geographically distributed so that its benefits are divided approximately equally among Kenya, Uganda, and Tanganyika. It is essential to set the first objective because present industrialization is quite limited (about 100,000 employees in manufacturing), because the rate of growth of manufacturing has been unhappily slow (gross product about 4% annually 1957-62, employment about -2%), and because only raising total investment dramatically could significantly ease the strain of its distribution among the three countries. It is essential to set the second objective because Kenya has moved well ahead of her twoparteners in the common market (45% of manufacturing employment in 1962, 61% of gross product in manufacturing, and 77% of interterritorial exports of non-food manufactures), and because separate national efforts to influence the location of industrial investment are the most serious threat to continuation of even the present degree of economic cooperation in East Africa.

4. Six possible instruments of industrialization policy can be usefully distinguished:

a. Promotion and persuasion. Each national government is already engaged in investigating possible industrial projects, publicizing promising possibilities to both foreign and domestic firms, and exerting whatever powers of persuasion or pressure it possesses to encourage industrial investment. The effectiveness of this instrument should not be underestimated, and it is desirable, as well as inevitable, that it will continue to be used.

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b. Facilities and services. Each government also undertakes various activities designed to provide inputs, lower costs, or diminish uncertainties for new industrial projects, and thus to raise their expected profitability to private firms. Among such activities are preparation of industrial sites, lending institutions providing finance at below-market rates, and for foreign firms, defined policies about repatriation of profits and capital. Again this instrument is important, and is bound to be continued.

c. Public enterprises. The Uganda Development Corporation has played a leading entrepreneurial role in Uganda industry, and Tanganyika and Kenya have recently formed similar organizations, though their relative emphasis on indirect provision of finance or on direct management of public enterprises is not yet clear. Public enterprises can accelerate industrialization either by accepting greater risks in pioneering new branches of industry, or by accepting lower rates of financial profit in branches of industry which are especially stimulating to the rest of the economy. It seems likely and desirable that public enterprises, if managed energetically and non-politically, will become a much more important instrument in the future in East Africa. Public enterprises appear particularly useful for the exercise of initiative by the three national governments.

d. Business tax credits. At present the key features of income taxation on public companies are a tax rate of 7/50 in the pound (37½%), of which Shs.4/- in the pound on dividends (20%) is deductible by shareholders from individual income tax, and investment allowances for industrial buildings and equipment permitting 120% of cost to be written off over their useful lives. Tax provisions are traditionally kept uniform by consultation among the three finance ministers, but if a serious disagreement should arise in the future about industrialization policy, one country might well set its rates independently. Tax holidays for new enterprises have been discussed in the past, and the IBRD mission to Uganda recommended a particular formula. The offcial government positions up till now, however, have been that all tax benefits should apply to existing as well as new enterprises, that a generally favorable tax climate is the most important inducement, and that the present tax system provides adequate stimulus for industrial investment. I shall discuss below why I feel that much more should be done with business tax credits.

e. Protection. Customs duties are already used rather energetically to protect domestic industries. There is a fairly general rate of 33⅓% and valorem for products considered desirable to protect, and higher ad valorem or specific rates may be introduced in particular cases. Again duties are traditionally kept uniform by consultation among the three finance ministers. Indeed customs duties must be substantially uniform to prevent duty-avoiding transshipment between the members of the common market, and hence differential customs duties cannot be used directly

to influence location of industrial investment. Individual governments can and do raise the effective protection indirectly, however, by granting customs drawbacks to domestic producers for duties on imported materials or other inputs, and any policy differences about these drawbacks could influence location.

f. Licensing. Domestic producers of certain scheduled manufactured products can be granted licenses by the EACSO Ministerial Committee on Commercial and Industrial Coordination giving some protection against the establishment of domestic competition during the term of the license. However, the number of scheduled products is small, none having been added since 1955, competition has subsequently been permitted in some scheduled products, and the administrative process has often ended in deadlock among the three governments. The three IBRD missions to Tanganyika, Uganda, and Kenya successively recommended that licensing be abandoned as ineffective and negative. Certainly under present conditions it is difficult to employ licensing to influence industrial location. An applicant who believes that investment will be more profitable in one of the three countries, but who is offered a license only if he locates in another, may either go ahead without a license or not invest at all; in the meantime tensions are created among the three governments, and uncertainty about the eventual outcome delays the investment. Some change in present licensing policy seems clearly needed, whether to eliminate it or to expand it.

5. The principal next step in industrialization policy should be to establish an East African agency to administer the last three instruments-business tax credits, protection, and licensing-according to agreed standards. The agreed standards should aim at the twin objectives of raising the total rate of industrial investment and ensuring approximately equal distribution of future benefits among Kenya, Uganda, and Tanganyika. To provide greater stimulus to total investment, the agency would need in particular much expanded powers to offer business tax credits, as well as modified powers of protection and licensing. To ensure approximately equal distribution of future benefits, the agency would need to be authorized to provide supplementary inducements for investment in a lagging country, whenever its share of future benefits fell below a certain minimum (see paragraph 8). The essential features of the suggested East African agency are that it be established by an intergovernmental agreement defining its powers and standards, including the key proviso about sharing future benefits, and that it have considerable scope for executive initiative. Other features would of course have to be worked out in negotiations: its name (East African Industrialization Agency?), its relationship to EACSO (a staff agency reporting to the Ministerial Committee on Commercial and Industrial Coordination, functioning without the rule of unanimity?), its relationship to a future political federation (to be absorbed by a Federal Ministry of Industry?), and its internal organization (a single executive secretary, with three deputies seconded from national ministeries?). Thus the agency would be the agent of the three governments in carrying out their agreed industrialization policy, using the three instruments placed at its disposal. The national

governments would continue to employ the first three instruments listed above--promotion and persuasion, facilities and services, and public enterprises. They would of course also be the ultimate judges of whether the agency was performing satisfactorily.

6. The major expanded power which the agency should have as an instrument of industrialization policy is business tax credits. Key features of this instrument should be the following :

a. A combination of higher tax rates and larger tax credits. The object should not be, as at present, to offer moderate tax rates on all business profits however earned, but to combine higher taxes on static firms which are contributing comparatively little to East African industrialization, with lower taxes on new and expanding firms which are contributing comparatively much. Higher basic tax rates are needed in recognition of pressing demands for general government revenue for development, and to permit a significant tax differential between comparatively static and comparatively dynamic firms. The actual basic tax rates are a detail which would have to be settled within the finance ministries, but a rate of Shs.10/- in the pound (50%), without any corresponding deduction for shareholders against individual income tax, may serve to illustrate the idea. Larger tax credits are needed as the means to grant lower effective taxes to new and expanding firms, both to permit greater reinvestment of present profits and to raise the profitability of continuing investment of new capital. New firms need assistance particularly because of their starting-up problems; expanding firms, because of their growing capital requirements. The underlying argument is that if some firms are comparatively static, they might as well contribute substantially to the government's general revenue needs. On the other hand, if other firms are comparatively dynamic, the government's development objectives are well served by granting lower effective taxes on conditions that their profits are used for continuing expansion. Moreover, in East African conditions, it seems particularly desirable to have a common business tax policy, to avoid the risk of competitive tax inducements by three separate governments.

b. A form of tax holiday for establishments producing new manufactured products. This tax credit should be available for new firms, both domestic and foreign, and for separable new establishments of existing firms. My preference would be to extend the tax holiday to all new manufactured products; the agency might exclude some new products on welfare or luxury grounds, but the widest possible scope would maximize the development stimulus. The principal advantage of a form of tax holiday, rather than an investment allowance, is that it would not give special tax encouragement to introducing capital-intensive rather than labour-intensive processes. The decline of manufacturing employment in East Africa in the last five years poses a serious social problem, and a substantial future rate of increase of manufacturing employment is essential to reap the benefits of industrialization.

The employment problem has of course many other aspects, but business tax policy can at least seek to contribute to its solution. Various forms of tax holiday are possible. The IBRD mission to Uganda suggested full tax exemption for any five of the first eight years of a new enterprise; India limits the exemption to fewer years and to a certain percentage of the invested capital. A form which appears attractive to me would be full tax exemption for the first three years, two-thirds exemption for the next three, and one-third exemption for the next three. The agency would also have to establish administrative criteria for defining new manufactured products and separable new establishments of existing firms, which I assume ingenuity can invent.

c. A formula for tax credits for existing manufacturing firms which expand at an above-average rate. It is desirable that business tax policy stimulate all forms of industrial investment as equally as possible. Since much of the total investment is bound to be undertaken by existing firms, both domestic and foreign, and since only part of it can take the form of separable establishments introducing new products, a formula for further tax credits as an alternative to the tax holiday should be designed. Again it is preferable to use another device than an investment allowance, so as not to give special tax encouragement to replacing labour with new equipment. A formula which appears attractive to me would be a percentage credit against tax equal to some multiple (say, 2) of the firm's percentage increase in employment over a recent base (say, the average of the preceding three years). With these particular figures a continuing expansion of employment at 8-9% per year would give a one-third credit, 16-17% would give two-thirds credit, and about 25% would give full tax exemption; the actual figures could be set at whatever levels are judged roughly comparable to the benefits of the tax holiday, Tying the tax credit to expansion of a firm's labour force would at least dramatize the social importance of rising employment, and at most might stimulate use of more labour-intensive processes. Again administrative details would have to be work out, and alternative formulas tied to expanding output or expanding gross product might be considered. But the key point is to provide a tax credit which would discriminate significantly between an expanding and a static existing firm.

d. A provision that if industrial investment in one of the three countries lagged excessively (see paragraph 8), larger tax credits would be offered to both new and existing firms in the lagging country. This provision seems to me much more promising than licensing as a means of influencing industrial location, since it would directly raise the profitability of investmnt in the lagging country, offsetting the other locational considerations which have caused the lag. It also has the advantage that it would affect most those projects for which the other locational considerations were least significant. The appropriate magnitude of the enlarged tax credits is a matter of judgment, and might well be left to the discretion of the industrialization agency, within some agreed limit (say, doubling the standard credits).

7. The agency should also have modified powers to use the instruments of protection and licensing to stimulate total industrial investment and if necessary influence its geographical location.

a. Protection might be used much as at present, but it would be convenient and would reduce potential tensions to make the customs duties and any customs drawbacks completely uniform for all three countries. Actually there would be advantages in eliminating drawbacks entirely, except for exports, so that domestic consumers would continue to be taxed on imported materials even when import replacement occurred, and so that evaluation of requests for protection would be focused on the full customs duty required to permit an increase in domestic value added. The main point, however, is that the agency should be authorized to use protection energetically on a uniform basis to raise industrial investment in East Africa as a whole. In a few cases it could also grant exceptional duties, if tax credits were insufficient, to induce location in a country where industrialization had lagged.

b. Licensing should also be available as an instrument which the agency could use at its discretion. In industries in which the minimum plant size is large relative to the entire East African market, some assurance of protection from new domestic competitors for a limited time could be a critical factor in inducing investment. To make licensing available for use, however, it would be essential that the range of products potentially eligible for licenses be radically extended, preferably to cover all manufactured products, or at least to cover a considerable list of products not now produced in East Africa which might be introduced in the next decade or so. At the same time, I presume that it would not be necessary to use licensing in addition to tax credits and protection, in more than a limited number of cases. Licensing is an inferior instrument in general, because of its restrictive effect on subsequent investment, and should be used simply as a third choice in particular cases.

8. An important technical question which I have not yet discussed is how to measure the share of industrialization benefits being received by each of the three countries, so as to determine whether the agency is callled upon to provide supplementary inducements for investment in a particular country. It seems to me that the final decision that a country's share has fallen below the acceptable minimum must involve the exercise of discretion by the agency, and on this key issue with the approval of (two of?) the governments. The agency should keep track continually of three main measures - each country's share of additional manufacturing employment, its share of additional gross product in manufacturing, and its share of gross capital formation excluding residential construction and agricultural investment. It seems to me preferable not to attempt to measure such effects as induced demand for interterritorial exports or revenue transfers through the fiscal system, since the commonly accepted objective is rough equality of the direct benefits of industrial activity. The measures would have to be examined over several years (say, an average of the past two years compared to an average of the previous

two), but with the aim of reaching decisions as expeditiously as the evidence permits. In the nature of things no exact minimum share of industrialization benefits can be stated, but to illustrate the objective the agency might be directed to take remedial action whenever one country's share fell to approximately a quarter.

9. Two further features seem desirable to complement the central powers and responsibilities of the industrialization agency.

a. The agency should have a small planning unit studying industrial prospects and possibilities in East Africa as a whole, and working closely with the national planning organisations in the three countries. Its objectives would be to assist in maintaining close staff contact among the three governments in industrial planning, perhaps by regular monthly meetings, and to exercise initiative in planning industrialization on an East African basis. If and when full federation was achieved this planning unit could provide the core of a federal planning office.

b. The present arrangements for the distributable pool should be modified so that all the revenue from the income tax on manufacturing firms, rather than the present 40%, flowed into the pool. This would mean that if supplementary business tax credits had to be granted for investment in one of the countries, the revenue cost would be borne by all three, in recognition of their common interest in an effective East African industrialization policy.

10. The suggestions raised in this brief paper are of course no panacea for problems of economic cooperation in East Africa. Next steps may also be possible and highly desirable in other fields - establishment of a central bank, perhaps joint marketing organizations for certain major crops, perhaps a common road authority for interterritorial trunk roads. But it seems to be widely recognized that significant actions in the field of industrial development are critical. The specific ideas raised here, as a stimulus for further thought, are at least constructive and economically feasible.