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IDS/DP 186

FINANCIAL POLICY IN KENYA:
THE BACKGROUND TO THE
RESERVE CRISIS OF 1971.

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DISCUSSION PAPER NO. 186

INSTITUTE FOR DEVELOPMENT STUDIES

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NOVEMBER, 1973

Paper originally issued as IDS/Working Paper No. 122.

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FINANCIAL POLICY IN KENYA : THE BACKGROUND TO THE RESERVE CRISIS OF 1971.

by J.R. King, Department of Economics, University of Nairobi.

When Rabbit asked, "Honey or condensed milk with your bread?" Pooh was so excited that he said, "Both", and then, so as not to seem greedy, he added, "But don't bother about the bread, please".

(from "Winnie-the-Pooh", by A.A. Milne)

The object of this paper is to explain why Kenya's reserves of foreign exchange fell from a peak of Kf 89.1 millions in March 1971 to Kf 62.2 millions by the end of November of that year.¹ Parts 1 and 2 of the paper are both of an introductory nature: part 1 describes the behaviour of reserves in the six years from December 1966 to December 1972, in order to set the 1971 "crisis" in its context; part 2 discusses two recent attempts at explanation, explains why in my opinion they are unsatisfactory, and indicates the kind of explanation which this paper seeks to provide. Parts 3 and 4, which make up the bulk of the paper, seek the origins of the crisis in the Kenya Government's financial policy in the years leading up to 1971.

Because the topic of the paper may be of some interest outside the community of academic economists, and because my intention is to describe the financial background to the crisis only in very general terms, I have tried to make the body of the paper as simple as possible. One result of this is that the paper contains a number of rather bald and over-simple assertions. Some of the most glaring ones are qualified in footnotes. The reader who finds the main body of the paper lacking in rigour is therefore urged to read it in conjunction with these footnotes.

One final preliminary comment on the nature of the paper is in order. It is a rather uneasy combination of history and contemporary polemic. It is history, because I am concerned only with the causes of an event which now lies in the past, and not - at least not in this paper - with the consequences of that event, which are of course still with us. But it is also polemic, because the consequences of

of the reserve loss, and in particular the policies which Government adopted to reverse it, can in large measure be traced to perceptions of what was happening which were in some respects mistaken. It seems obvious, as one economist has argued, that "the remedies for balance-of-payments difficulties should be selected in the light of their causes"²; and so although this paper does not discuss financial policy in Kenya after the reserves began to fall it cannot avoid some implicit criticism of the handling of the reserve crisis, as well as explicit criticism of the policies which led to it. Such criticism is always easier, and therefore less welcome, when it is offered with the wisdom of hindsight, as in this paper. But if a study of past mistakes can help reduce the danger of their repetition, historical polemic may serve a useful function.

Part 1 : The Behaviour of Kenya's Foreign Exchange Reserves.

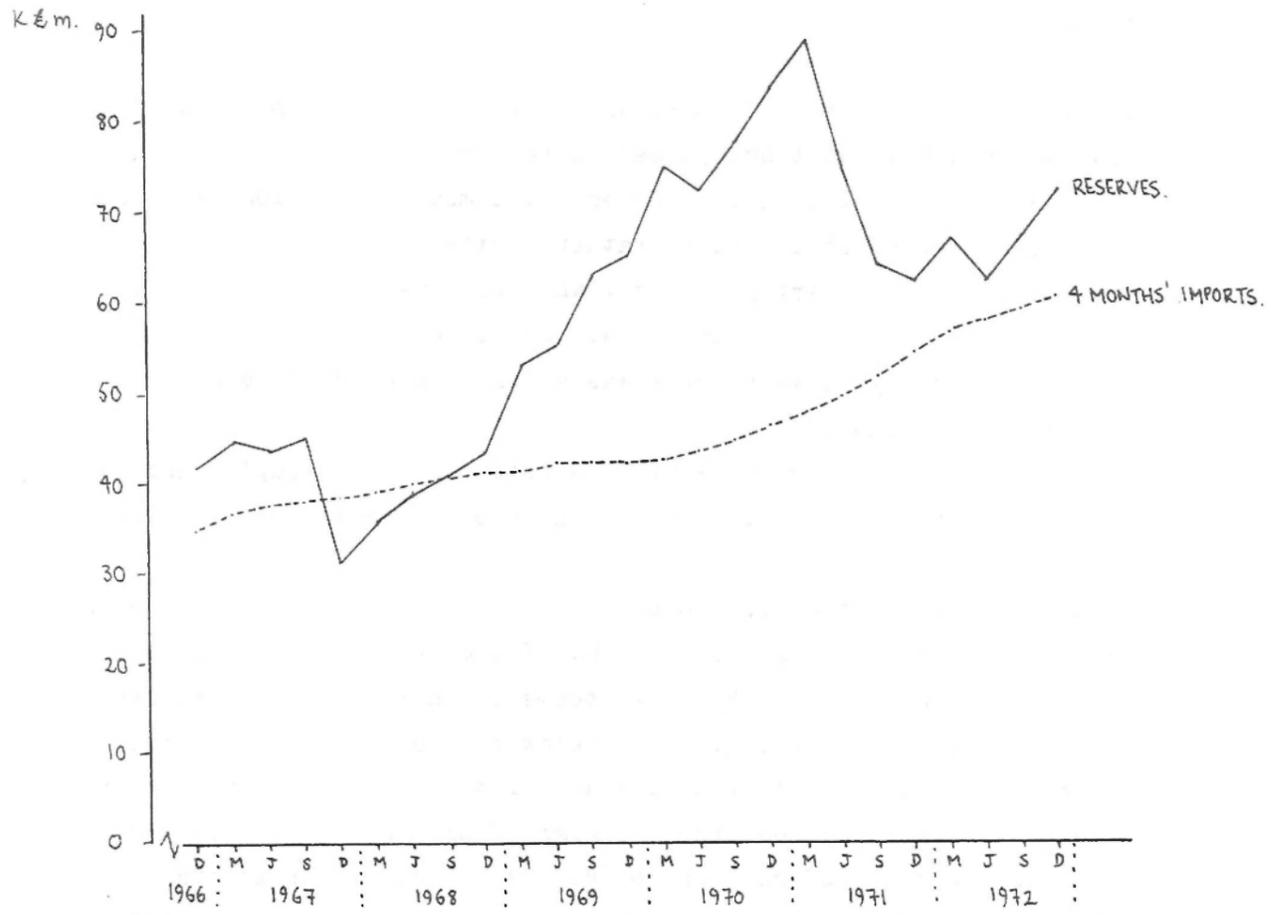
Figure 1 below illustrates the behaviour of Kenya's foreign exchange reserves from December 1966 (shortly after the Central Bank of Kenya began operations) until December 1972. The quarterly data on which this Figure is based is contained in the Statistical Appendix.

Figure 1 (a) shows (i) the level of reserves at the end of each quarter, and (ii) a level of reserves corresponding to the equivalent of four months' imports averaged over the previous three years which the Central Bank is required by Section 26 (1) of the Central Bank of Kenya Act to "use its best endeavours to maintain". Figure 1 (b) shows quarterly percentage changes in the level of reserves.

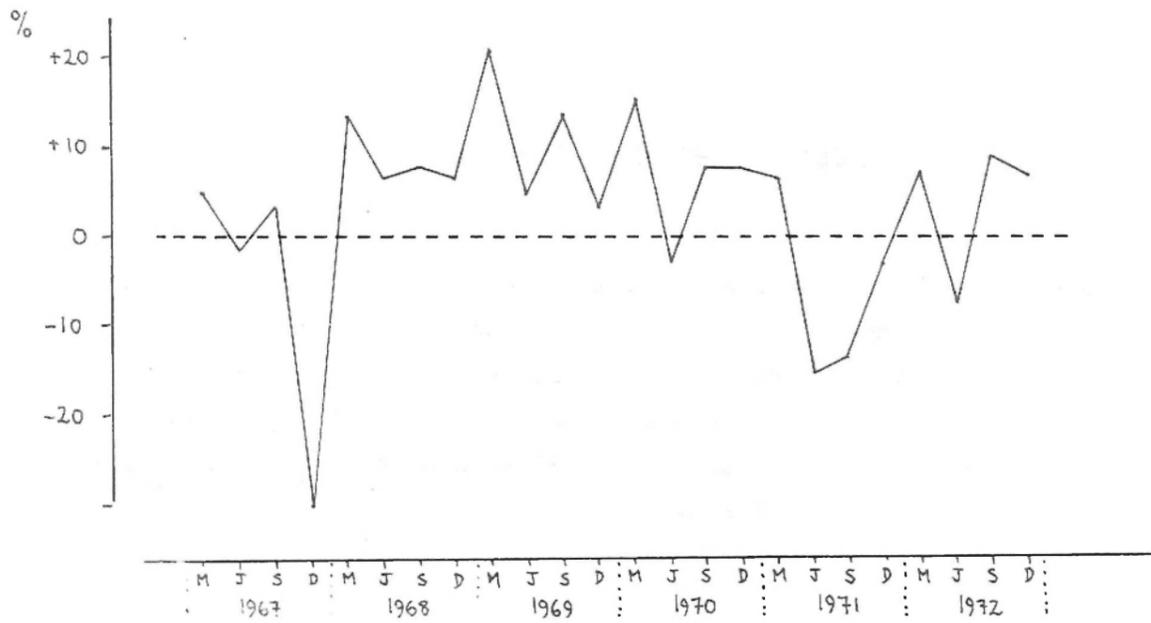
It should be noted that the reserves shown in Figure 1 are Kenya's foreign exchange reserves rather than simply that portion which was held by the Central Bank. The latter as a percentage of the total rose from 40.6% in December 1966 to 91.1% in December 1972, in accordance with the Government's policy of centralising the country's reserves in the hands of the Central Bank. The Act seems to suggest that it is the Bank's reserves rather than Kenya's which should be maintained at the equivalent of four month's imports: this is certainly the interpretation which the Bank has placed upon it. This

FIGURE 1 : KENYA'S FOREIGN EXCHANGE RESERVES, Dec. 1966 to Dec. 1972.

(a) absolute level.



(b) percentage change from previous quarter.



is however rather odd: from the economy's point of view (which is surely the point of view which the Central Bank should adopt) it is the total quantity of reserves which matters. Their exact location is unimportant.

A clear pattern emerges from Figure 1. The six-year period can be divided into five distinct phases as follows:

- (i) the first year after the establishment of the Central Bank, when reserves rose, though rather slowly;
- (ii) the last quarter of 1967, when reserves dropped suddenly;
- (iii) the period from the first quarter of 1968 to the first quarter of 1971, when there was a very rapid and reasonably steady increase;
- (iv) the remainder of 1971, when reserves fell steeply; and finally
- (v) a period of stabilisation and recovery beginning in 1972.

Thus 1971 was not the first occasion on which there was a run on the reserves: a fall occurred at the end of 1967 which was as large in relative (though not in absolute) terms as that of 1971. Furthermore, in 1967 Kenya's reserves did fall below the level of four months' imports, whereas in 1971 they did not. The most interesting contrast between the two occasions which emerges from the Figure, however, concerns the speed of recovery of reserves after their initial fall: after 1967 recovery was very rapid, whereas in 1971-2 it was much less so. This suggests that the reserve loss was of a quite different nature on the two occasions. That, indeed, is what I shall argue in the remainder of the paper.

Part 2 : Some Suggested Explanations.

Early in 1972 an international mission undertook a study of the causes of unemployment in the Kenya economy. The mission's report, published later in the same year, had very little to say about unemployment (strictly defined), but a great deal to say about a wide range of related issues. The mission made the following comment on the 1971 reserve crisis:

"The balance of payments is now beginning to set limits on the earlier pattern of growth. This is in marked contrast to the 1960's, when Kenya seemed to have solved the problem of reconciling economic growth with a strong balance of payments ...

The first signs that this situation was precarious appeared in 1970, when imports rose sharply ...

The Government has already started to take a series of measures to stop the loss of foreign exchange ... These measures may well reverse the rise in imports ... But the point is that the myth of effortless growth, a Kenyan "miracle", had been shattered. It has suddenly become clear that the boom had been of a kind that caused stresses in the balance of payments, just as it had been the sort of boom that aggravated unemployment and inequality." (My emphasis).

This is a very condensed "explanation" indeed, and the meaning of the sentence emphasised above is not likely to be clear to any reader who is unfamiliar with the "structuralist" interpretation of inflation in Latin America (and more recent writings of the "structuralist" school of thought), which fought a celebrated academic battle with the opposing "monetarist" interpretation during the 1950's.⁴ For those readers who are not familiar with this controversy, the following rather simplistic translation of what the sentence was probably intended to mean will have to serve:

From Independence to the end of the 1960's the Kenya economy was growing fairly rapidly. But the distribution of this increasing wealth was at the same time becoming more unequal. Now, it appears that the rich have a higher propensity to import consumption-goods than the poor; so increasing inequality would mean that the demand for imported consumption goods would grow faster than income. At the same time, rapid growth would mean that the demand for capital goods, largely imported, would rise steeply. But Kenya's exports are mainly primary products, overseas demand for which will tend to rise relatively slowly. Thus, with rapid growth in the Kenya economy the balance of payments will inevitably tend to deteriorate.

There may be truth in this argument, although some of the empirical assertions which it makes - in particular, the assertion of increasing inequality during the 1960's - have yet to be shown to be true for the Kenya economy. But for our present purposes the important point to be made about it is that it assumes that the rate of growth of the economy is something given "exogenously". As presented, the "structuralist" interpretation provides no explanation of why the economy should grow at a rate higher than the rate of growth of

export and import-substituting production, and hence impose strains on the balance of payments: as an explanation of why reserves should fall it is at best, therefore, very far from complete. Furthermore, this type of explanation raises rather more questions than it solves. If the reserve loss was really due to long-term structural forces of the type outlined above, why was it that reserves fell so suddenly in the second quarter of 1971? and why had they been rising so steeply for the previous three years?

An explanation of a quite different type was offered by the Government's "Economic Survey" for 1971, which was published in June 1972. After observing that "a drop in reserves of this magnitude was unprecedented" and that, in general, "the causes ... related to both domestic and international factors", the Survey proceeded to list the following specific causes:

- (i) a rise in commercial bank lending, especially "to those sectors which have a higher propensity to import";
- (ii) inflation in industrialised countries, which raised the price of Kenya's imports;
- (iii) "the uncertainty in international money markets ... (which) promoted accelerated import payments and delayed export receipts";
- (iv) increased investment expenditure, by both Government and the private sector;
- (v) higher food imports, necessitated by the drought which affected Kenya's agriculture in 1970; and finally
- (vi) "the acquisition by the Government of a part of the foreign holdings in the banking, oil refining and electricity industries, as an expression of its policy of establishing a greater national stake in strategic industries".⁵

It is possible, of course, for us to take issue with some of the factors mentioned in this list. For instance, one wonders why the Survey found it necessary to qualify its comment on bank lending with the rider "to those sectors which have a higher propensity to import", when the import propensity of the borrowing sector could be expected to influence the timing but not the amount of the reserve loss consequent (in equilibrium) on bank credit expansion.⁶ Second, the evidence that international monetary confusion did result in significant changes in the timing of Kenya's import payments and export receipts in 1971 is rather weak. But in general it must be

acknowledged that the factors mentioned in the Economic Survey's list were present in the Kenya economy in 1971, and that each of them, taken on its own and with other things being equal, would have had an adverse effect on reserves.

But as an explanation of the reserve loss the list remains unsatisfactory, for two main reasons. First, it is not really one explanation, but includes parts of two, explanations, of different types. Item (i), the rise in commercial bank lending, would not have been something different from item (iv), increased investment expenditure; it would merely have been another side - the financial side - of the same coin. Second, and much more serious, neither of these two explanations is really complete. They beg a number of rather important questions: for instance, why did bank lending rise steeply when it did? and why was investment running at such a high level?

This incompleteness becomes clear when one examines the list in detail. No. (iii), to the extent that it occurred, could reasonably be expected to reverse itself without Government action; nos. (v) and (vi) were of a once-for-all nature; and, on the assumption that the long-run price elasticity of demand for imports would be higher than the short-run elasticity, no. (ii) could be expected to become less serious over time as a source of reserve loss. Why then, one wonders, was the reserve loss treated so seriously? For countries do not keep foreign exchange reserves in order to earn a rather meagre rate of interest on them: they keep them, rather, to guard against having to take drastic measures (of the kind taken by the Kenya Government in 1971-2) when unexpected once-for-all factors of the kind which make up most of the Economic Survey's list arise. If this list was a complete account of what caused the reserve loss, therefore, the seriousness with which it was treated would be hard to explain. It will be argued in this paper that the reserve loss really was a crisis, which did necessitate some fairly drastic remedial action. To argue thus we shall have to find some rather more fundamental causes than those contained in the Survey's list.

A convenient point at which to start the search is the familiar "income and expenditure" identity, which may be written, in rather crude form, as follows:

$$C + I + G + X = C + S + T + M$$

(where C is consumption expenditure on domestically-produced goods and services, I is private sector investment spending, G is public sector spending, X is exports of goods and services, S is private saving, T is public sector revenue from taxes, and M is imports).

In this rather simple economy, foreign exchange reserves will decline if M is greater than X in any time-period. For this to happen, it is necessary that $I + G$ be greater than $S + T$; and for that inequality to arise the finance to make it possible must be provided from somewhere in the economy.

The inequality usually arises for one of two reasons. First, Government may spend more than it receives, so that G exceeds T. Typically, this deficit is financed by Government borrowing from the banking system; to the extent that the excess of G over T is not matched by an equal excess of S over I, M must be greater than X. Alternatively, private investment expenditure I may be greater than S. This is typically financed, in countries such as Kenya, by bank credit expansion to the private sector at a rate greater than that at which the economy is making savings available to the banks in the form of deposits (as seems to have happened throughout East Africa between 1945 and 1965.⁷)

We shall now investigate these two possible sources of the finance which was necessary for the 1971 reserve crisis to occur. Before we begin it must be emphasised that whatever else may have been happening in the economy, financial developments must have permitted the reserve loss. This is an assumption of the paper, not a conclusion. It remains for us only to establish whether in Kenya's financial history prior to 1971 there can also be found sufficient conditions for the crisis.

Part 3 , Financial Policy: The Finance for Government Expenditure.

Throughout most of the Colonial period in Kenya, the limitations placed on the Colonial government by the metropolis were such as to preclude deficit financing. Until 1955 expenditure could only be undertaken if the funds, and the resources, had first been made

available from taxation, the revenues of Government corporations, or long-term borrowing in London. (To a very limited extent, the colonial Government was also able to tap local savings by issuing long-term securities in Kenya, and it could borrow small sums from its commercial banker. The latter source of funds might be considered to be "deficit financing", but it was a source which could be tapped only for very short periods of time, and certainly not on a permanent basis). This does not mean that there were not important issues of financial policy with which the Kenya Government had to deal during the colonial period, but it does mean that "printing money", in any of its various disguises, was not among the Government's financial policy options.

This situation changed in December 1955, when the regulations of the East African Currency Board were amended to permit the Board to hold the securities of the East African Governments, within stated limits, as backing for its currency issue.⁸ The financial implications of this "fiduciary issue" have been thoroughly analysed elsewhere.⁹ The most important point, for our purposes, is that the change in the Currency Board regulations did open up the possibility of deficit financing of Government expenditure on a permanent basis: once a Government had borrowed from E.A.C.B. by issuing securities to it in exchange for currency, there was no danger that the debt would ever have to be repaid.

By mid-1965, when it was announced that E.A.C.B. would be replaced by separate Central Banks in each of the independent East African countries, Uganda had used 96 % of the fiduciary issue to which it was entitled; Tanzania had used 64 %; but Kenya had used only 35 %.¹⁰ This financial conservatism of the Kenya Government in the early 1960's is rather surprising, because the temptations for Kenya to make use of the fiduciary issue to which it was entitled around the time of independence must have been very strong. For Kenya became independent at a time when the Government was faced with a serious financial problem, the nature and origins of which we must briefly consider.¹¹

During the 1950's the expenditures of the colonial Government had risen steeply, largely because of spending on the Emergency, but also because of substantial new development efforts undertaken in the mid-1950's (which included the important Swynnerton programme

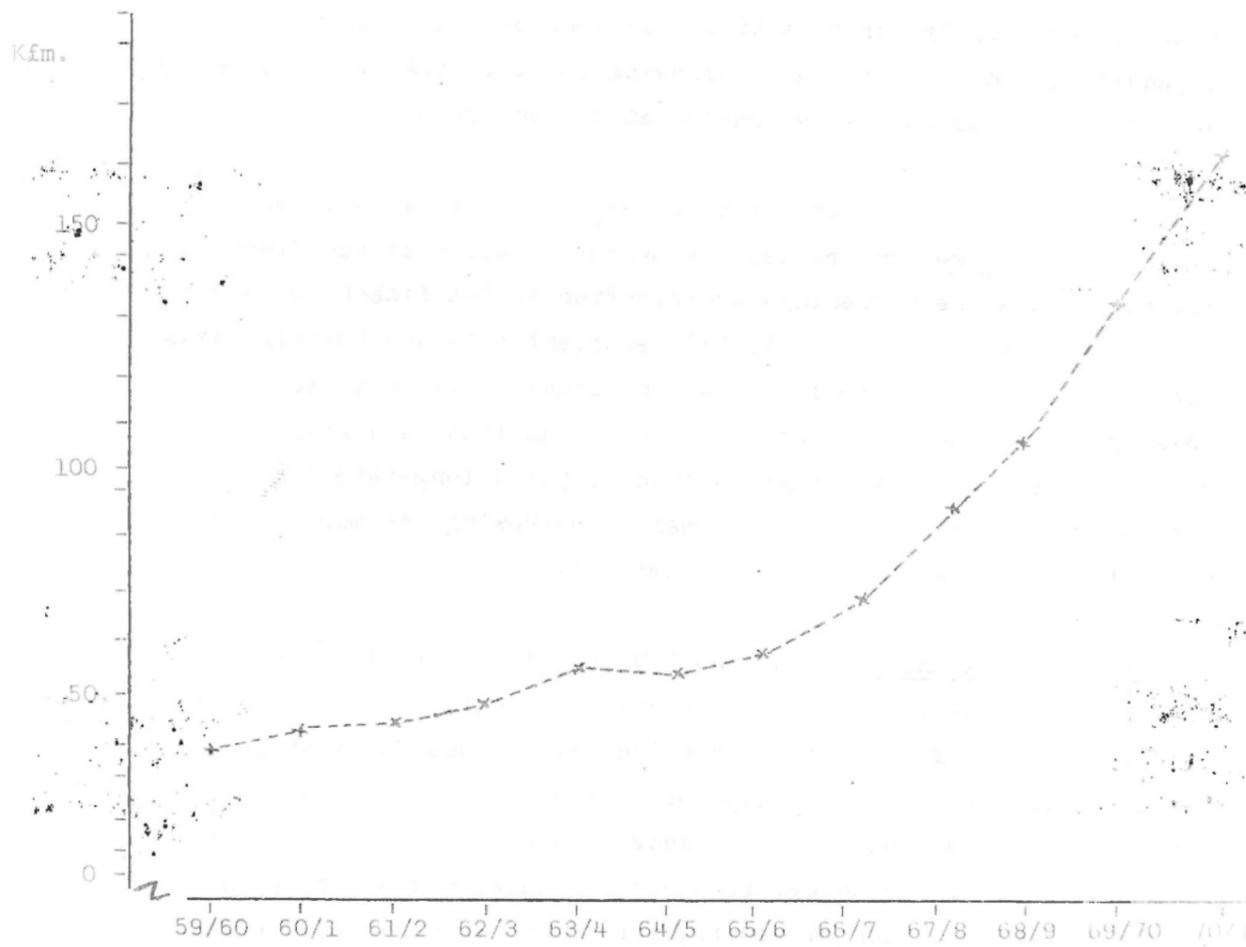
for smallholder agriculture). But tax revenues rose, in comparison, rather slowly. The gap was closed by the Kenya Government drawing down its reserves (which must be distinguished from the reserves held as currency backing by E.A.C.B.), and by loans and grants direct from the metropolitan Government in London. By the early 1960's the Emergency was over, but Kenya Government expenditure continued to rise as a result, among other things, of the commencement of Government-financed transfers of land in the "White Highlands" from European settlers to African farmers, and of rapidly rising (though perhaps, with the approach of independence, belated) expenditure on education. By this time the Government's financial reserves were all but exhausted. The deficit was met almost entirely by loans and grants, on recurrent and development account, from London.¹² Even so, the finance available to the Kenya Government was insufficient to prevent a drastic cut-back in public sector investment expenditure in the years before independence, which was far more pronounced than the decline in private sector investment in this period.

At independence the Kenya Government was confronted by an urgent need to reverse the decline in public sector capital formation, by embarking on a positive development programme; by an inevitable increase in recurrent expenditure as it assumed certain functions formerly undertaken by the colonial power, such as external defence and diplomatic representation; and by the anticipated removal of grants from London on recurrent account as a source of funds. Thus the temptation to resort to deficit financing in the form of borrowing from E.A.C.B., as the Uganda Government was doing, must, as we suggested above, have been strong. Yet the World Bank mission, which surveyed the economic problems of Kenya in 1962-3 and advised the new Government on its development programme, made no mention of this form of finance in its published report.¹³ To argue against "money creation" in the Kenya of 1962-3 would have been one thing, but to ignore the possibility altogether seems in retrospect very strange indeed.

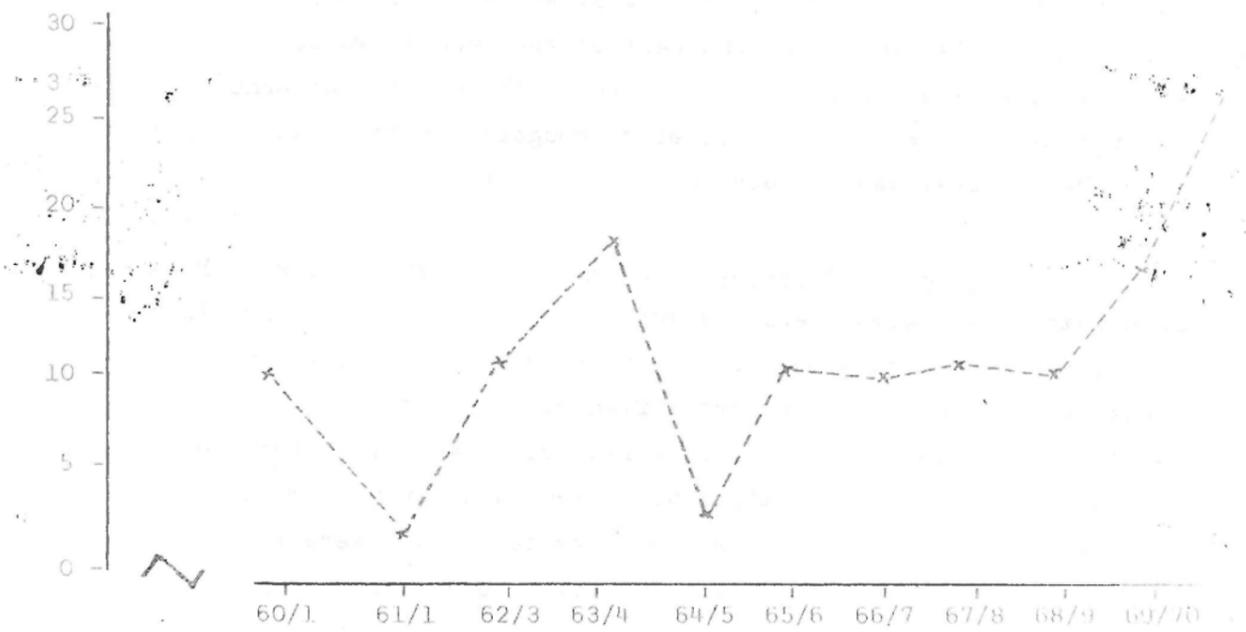
Since 1962-3 Central Government expenditure in Kenya has risen at an average annual rate of slightly more than 10% per annum, as shown in Figure 2. In the first year of independence the rise was more than this (18.0%), and in the following year correspondingly lower. The other major exception to the generalisation is the period 1969 - 1971,

FIGURE 2 : CENTRAL GOVERNMENT EXPENDITURE IN KENYA, 1959/60 to 1970/1.

(a) absolute level.



(b) percentage change from previous year.



when expenditure appears to have accelerated dramatically. To some extent this is an illusion, due to the Central Government's taking over responsibility for some K& 12 millions of County Council expenditures in 1970. But even allowing for this transfer, there does seem to have been some acceleration at the end of our period.

Our concern here is not this rising level of Central Government expenditure per se, but rather the manner in which it was financed. Figure 3 shows the percentage contribution to the finance of Central Government expenditure made by (i) recurrent revenues (mainly taxes, but also defined here to include such items as licence fees and development project earnings); (ii) external loans and grants, on both recurrent and development accounts; (iii) long-term domestic borrowing; and (iv) short-term domestic borrowing. We must now consider these four sources of finance in some detail.

(i) Recurrent revenues. The contribution of different forms of recurrent revenue to Government expenditure is important not only because of the different ways in which the various forms of revenue can affect the economy, but also because any expenditure which is not covered in this way has to be financed either from foreign grants or from some form of borrowing. Figure 3 (i) shows a clear pattern. The percentage contribution of recurrent revenues to Central Government expenditure in Kenya was 77.3% in the last full year of colonial rule; it fell to 70.4% in the first year of independence, and then rose steadily to more than 80% in 1967/8, at which level it remained until the early 1970's. In the second half of the 1960's, which is the period with which we are particularly concerned, the Central Government's "borrowing requirement" was therefore roughly constant, at slightly over 20% of total Central Government expenditure.

(ii) External loans and grants. In 1962/3 and 1963/4 this "borrowing requirement" was almost exactly met by external loans and grants - the latter making up almost one-half of total external finance in these years. Thereafter, external finance declined fairly steadily in relative importance as a source of finance. Grants fell from an absolute level of K& 9.94 millions in 1963/4 to K& 0.82 millions in 1970/1; in absolute as well as relative terms they were therefore of little significance by the early 1970's. External loans, on the other

FIGURE 3 : PERCENTAGE CONTRIBUTIONS TO CENTRAL GOVERNMENT EXPENDITURE
IN KENYA, 1959/60 TO 1970/1, OF:

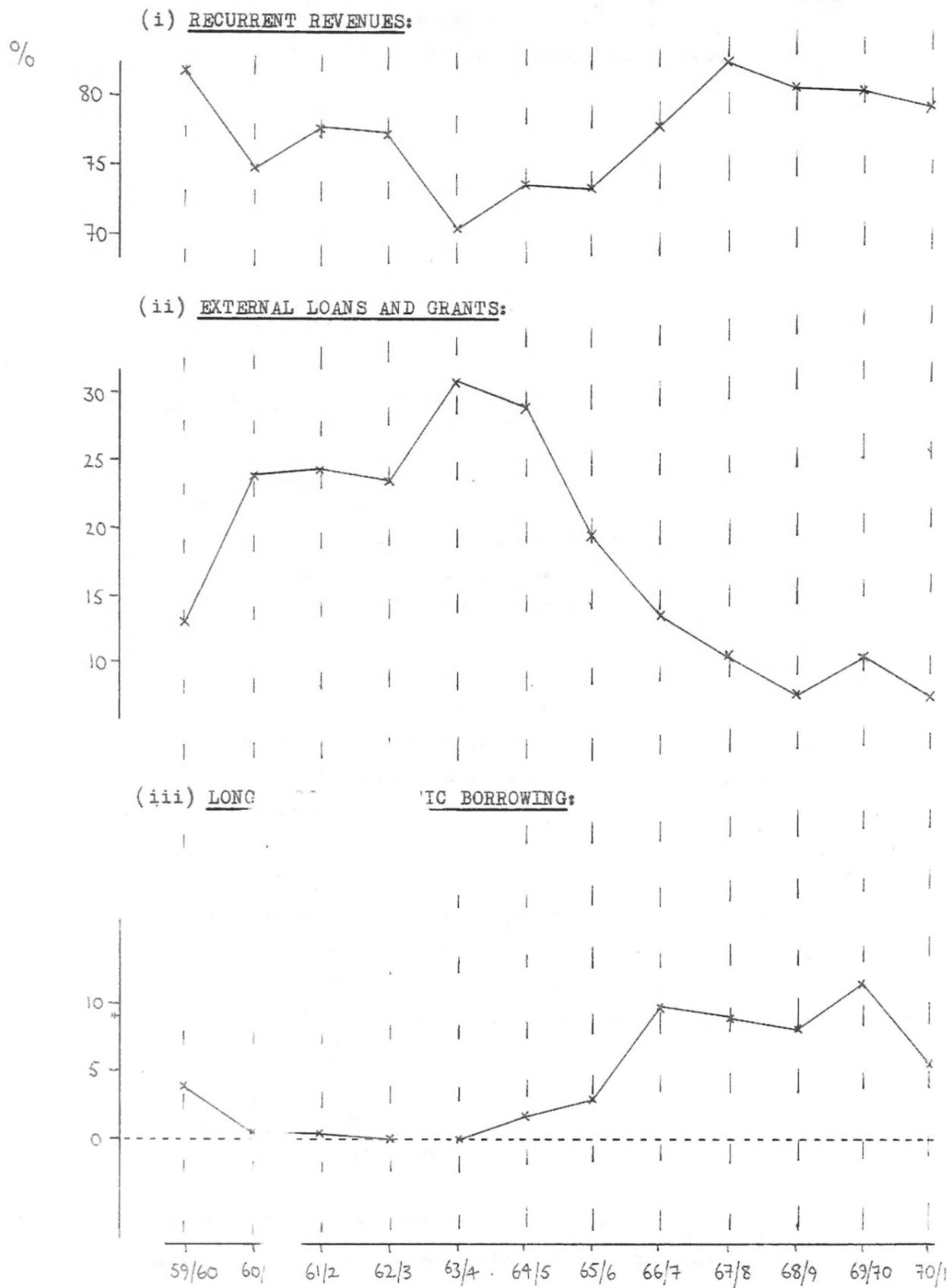
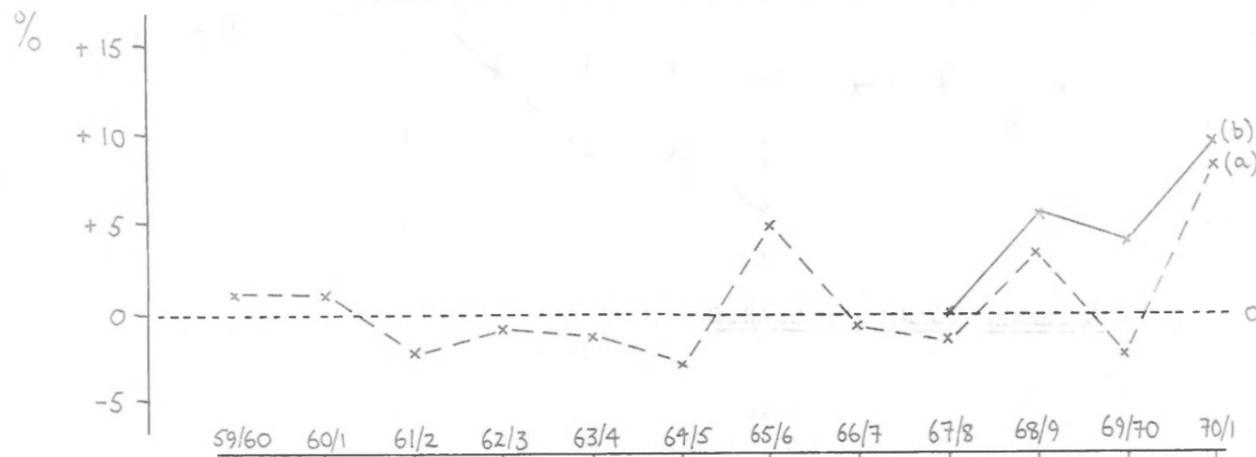


FIGURE 3 (contd).

(iv) SHORT - TERM DOMESTIC BORROWING:

(a) net of changes in the Exchequer cash balance.

(b) gross of changes in the Exchequer cash balance.



hand, fell in absolute terms only slightly between 1963/4 and 1968/9, and then rose to their former level; but because of the considerable increase in expenditure which was taking place, their relative contribution was much smaller at the end of our period than it had been at the beginning.

Thus by the end of the 1960's a considerable gap had emerged between Central Government expenditure on the one hand, and recurrent revenue plus total external finance on the other. This gap was filled by both long-term and short-term domestic borrowing, which we must consider in rather greater detail.

(iii) Long-term domestic borrowing. The Kenya Government borrows domestically on a long-term basis by selling securities, mainly to financial institutions but also, to a small extent, to private individuals. Figure 3 (iii) shows that this form of finance made no contribution at all to Central Government expenditure in 1962/3 and 1963/4 ; a small contribution (of 1.5% and 2.6%) in 1964/5 and 1965/6; significant contributions of between 8% and 11% between 1966/7 and 1969/70; and a somewhat smaller contribution in 1970/1.

There is no a priori manner in which it can be determined whether this form of finance should be classified as "deficit financing"

or not. The appropriate classification must depend on whether the borrowing makes available to the Government resources equal in value to the expenditure financed in this way (by displacing private expenditures, or by inducing a capital inflow of this amount); or whether the resources made available by long-term borrowing are less than the Government expenditures to be financed in this way.¹⁴ This is a question which can only be resolved empirically, for a particular economy and at a particular point in time. We must therefore consider the nature of Government's long-term domestic borrowing during the 1960's.

Between mid-1960 and mid-1965 there was virtually no change in the Kenya Government's long-term domestic indebtedness. Since then there appears to have been a reasonably steady increase. But the steadiness is, as we shall see, rather deceptive. In order to be able to discuss the nature of the growth in Government's long-term domestic indebtedness, we must investigate who held the debt.

TABLE 1 : HOLDERS OF LOCALLY-REGISTERED KENYA GOVERNMENT DEBT.

<u>Holder</u>	KfM	
	<u>end Dec. 63</u>	<u>end June 72</u>
National Social Security Fund	-	26.14
Central Government	3.35	17.47
Local Government	0.76	0.95
Post Office Savings Bank	0.95	3.38
E.A. Community Institutions	0.87	0.40
Other Public Sector Institutions	0.50	0.51
Commercial Banks	1.64	8.09
Insurance Companies	2.01	6.13
Other Companies	0.98	8.90
Private Individuals	0.32	0.29
Other (within E.A.)	0.40	0.37
" (Sterling Area)	1.50	1.37
" (outside Sterling Area)	0.11	0.01
E.A.C.B. / Central Bank of Kenya	3.71	3.67
TOTAL:	<u>17.09</u>	<u>77.66</u>

Source: Central Bank of Kenya, Annual Reports.

It emerges from this Table that for the majority of holders listed there was no significant increase in their holdings of Kenya Government securities between 1963 and 1972. The more than Kf 60 millions

increase in the total outstanding was almost entirely due to increased holdings by the National Social Security Fund (whose holdings rose from zero to K£ 26.14 m.); by the Central Government itself, whose holdings - held mainly in pension and similar funds - rose by K£ 14.12 m.; by the Post Office Savings Bank, Insurance Companies and other non-bank (mainly financial) institutions, whose holdings rose by K£ 14.47 m.; and by the Commercial Banks, whose holdings rose by K£ 6.45 m.

Of these four types of holdings which did grow rapidly, holdings by the National Social Security Fund, which since it began operations in 1966 has been collecting contributions from workers and their employers on a compulsory basis, are clearly "forced savings": this source of Government borrowing does displace an almost exactly equal amount of private expenditure, and therefore cannot be considered as "deficit financing". From 1966 to about the middle of 1970 borrowing from the N.S.S.F. grew very rapidly indeed, as the coverage of the Fund was extended. But from 1970 onwards this coverage has not been much extended, so that Government long-term borrowing from the N.S.S.F. must now be expected to increase only at the same rate as the wage-bill of that sector of the economy which is liable to make contributions. To sustain the growth of total long-term domestic borrowing after the end of the 1960's the Government was thus obliged to look elsewhere. In 1968-70 it achieved a once-for-all "forced capital inflow" of almost K£ 5 m. by requiring the Commercial Banks to maintain a minimum level of capital reserves in Kenya. In the early 1970's this form of borrowing was again boosted in a once-for-all manner as Public Sector pension funds sold their overseas securities and purchased Kenya Government stock instead.

There are two main lessons to be drawn from this rather cursory discussion. The first is that in the late 1960's and early 1970's the major part of Central Government long-term domestic borrowing should not be considered to be "deficit financing": most of it took the form either of forced savings through captive financial institutions, or of forced capital inflow. In order to simplify the discussion which follows, we shall assume (what is almost certainly not exactly correct) that none of the long-term borrowing was "deficit financing". Second, the very large proportion of Government expenditure which was financed in this way at the end of the 1960's was made possible only by a succession of once-for-all expedients.

Until the Kenya Government begins to compete actively for private savings in the open market, which it hardly did in the period under review, the rate of growth of long-term domestic borrowing of the late 1960's and early 1970's could not (and cannot) be sustained. Economic growth will, of course, automatically provide the Government with a source of long-term funds from the N.S.S.F., the P.O.S.B., Insurance Companies and pension funds. But the 11% of Government expenditure which was financed in this way at the end of the 1960's is most unlikely to be approached again.

(iv) Short-term domestic borrowing. Figure 3 (iv) shows the percentage of Central Government expenditure financed by short-term borrowing (a) after deducting changes in the Exchequer cash balance, and (b) before deducting this balance. The gross figures ((b)) show intended expenditure financed by short-term borrowing, whereas the net figures ((a)) show actual expenditure financed in this way. Apart from 1965/6, when there was a considerable shortfall in expected Government revenues from other sources and therefore a fall in the Government's cash balances, short-term borrowing was an insignificant source of finance before the first issue of Treasury Bills was made at the end of March 1969. By the end of June 1969 Kf 5.0 m. of Treasury Bills were outstanding, amounting to 4.8% of Government expenditure in 1968/9. But almost half of this merely financed an increase in the cash reserve, so that the net deficit element was only about 3% - still a very modest figure.

In 1969/70 the Government redeemed this Treasury Bill issue, and instead borrowed Kf 5.0 m. from the Central Bank: these two changes effectively cancelled one another out.¹⁵ At the same time the Government did borrow slightly more than Kf 5.0 m. short-term in this year through the issue of Tax Reserve Certificates, and by borrowing from the Cereals and Sugar Finance Corporation.¹⁶ But, since the short-term cash position simultaneously improved by almost Kf 8.0 m., the deficit-financed portion of expenditure in 1969/70 was actually negative.

There was a dramatic change, however, in 1970/1. Government recommenced its issue of Treasury Bills (which had become, due to certain financial conditions which we shall examine in the next section of the paper, an extraordinarily cheap source of funds) so that Kf 10.0 m.

were outstanding by the end of the fiscal year; and it borrowed a further K£ 5.0 m. from the Central Bank. The deficit-financed element in Government expenditure thus jumped in 1970/1 to over 8%. Clearly, this was an important change in policy, for in contrast to 1965/6 the deficit of 1970/1 was planned. What was the reason for the change?

The most straightforward way for us to approach this question is by examining Kenya's Development Plan for the period 1970-74, which was published at the end of 1969.¹⁷ That Plan provided for Central Government development expenditures over the five year period from 1969/70 to 1973/4 of K£ 180.0 m., in constant price terms: "while some of the investment projections in the Plan are to be regarded more as forecasts than as fixed Plan targets, the development budget of the Central Government represents a firm commitment to implement a large number of carefully selected development projects" (Plan, p. 147; my emphasis). While expenditures had been carefully determined, however, the Plan was much less certain about the manner in which they would be financed. "A possible financing pattern could be as follows:

1. Surplus on recurrent budget	20.0
2. Borrowing from N.S.S.F.	30.0
3. Other local borrowing (excl. 4)	10.0
4. Treasury Bills, and borrowing from CBK	25.0
5. Grants and loans from abroad	95.0

Total: K£ 180.0 m. " (Plan, p. 163)

Since the Plan stated (p. 164) that external finance was expected to cover 13% of total (as opposed to development) expenditures during the Plan period, we may deduce what the financing pattern for total expenditures was expected to look like:

EXPECTED FINANCE OF CENTRAL GOVERNMENT EXPENDITURE, 1969/70 to 73/4

Recurrent revenues	570 (78.0%)
Borrowing: External	95 (13.0%)
Long-term, domestic	40 (5.5%)
Short-term, domestic	25 (3.5%)
<hr/>	
Total Expenditure/Finance	K£ 730 m (100%)

We may now compare this "possible financing pattern" with our earlier discussion of the actual experience of the late 1960's. First, the proportion of total expenditure which it was planned to cover from recurrent revenues (78.0%) was very similar to the actual proportion so covered in the late 1960's. Second, the proportion to be covered by long-term domestic borrowing was a good deal lower. The Plan recognised this, but explained (p. 163) that room had to be allowed for some K£ 10.0 m. of long-term borrowing by local authorities. In the light of this, and of our earlier remarks about the possibilities of continuing to increase long-term domestic indebtedness at the rate of the late 1960's, a contribution of 5.5% seems to have been a reasonable expectation for funds provided from this source. Third, despite the comment of one observer that "the Kenya Government foreign financing requirements ... appear conservative, in terms of past performance"¹⁰, K£ 95.0 m. looks a distinctly unreasonable forecast for external finance if this was to be obtained, as we may safely assume to have been the intention, on concessionary terms. In effect the Government was expecting to double the percentage contribution of external finance to its expenditure, and to increase its average annual amount during the Plan period by about two and one-half times from the actual levels 1967/8 and 1968/9. Since the Plan's forecasts are in constant price terms, the discrepancy between the experience of the late 1960's and the Government's hopes for the early 1970's is actually even greater than this. Furthermore, in marked contrast to the two previous Development Plans of the independent Kenya Government, that for 1970-74 gave no indication at all of how much foreign finance had already been committed, how much was under negotiation, and how much remained to be found.

One's suspicions that the Government itself had doubts about its target for foreign generosity are confirmed by a most remarkable statement with which the Plan concluded its discussion of the financing of Central Government expenditure:

"Unless Kenya succeeds in obtaining the necessary foreign exchange ... to match the rather ambitious development programme, the reserve position ... may also change rapidly if the necessary steps are not taken in advance to curb imports and secure a sufficient supply of internal credit. This would be a highly undesirable - and unnecessary - situation but unfortunately not entirely under Government control." (Plan, p. 165).

The impression conveyed by this statement is that the Government rather cold-bloodedly planned the 1971 reserve crisis, and its reaction to it, as early as the middle of 1969. For a level of real expenditure had been decided upon which could only be financed without a sizeable deficit if foreign finance could be obtained at a far more generous rate than ever before. This foreign finance was not in the pipeline; and when, not surprisingly, it failed to appear in the early years of the Plan the Government undertook in the single year 1970/1 three-fifths of the deficit financing which had been budgeted for the entire Plan period. Need we look any further for the cause of the 1971 crisis?

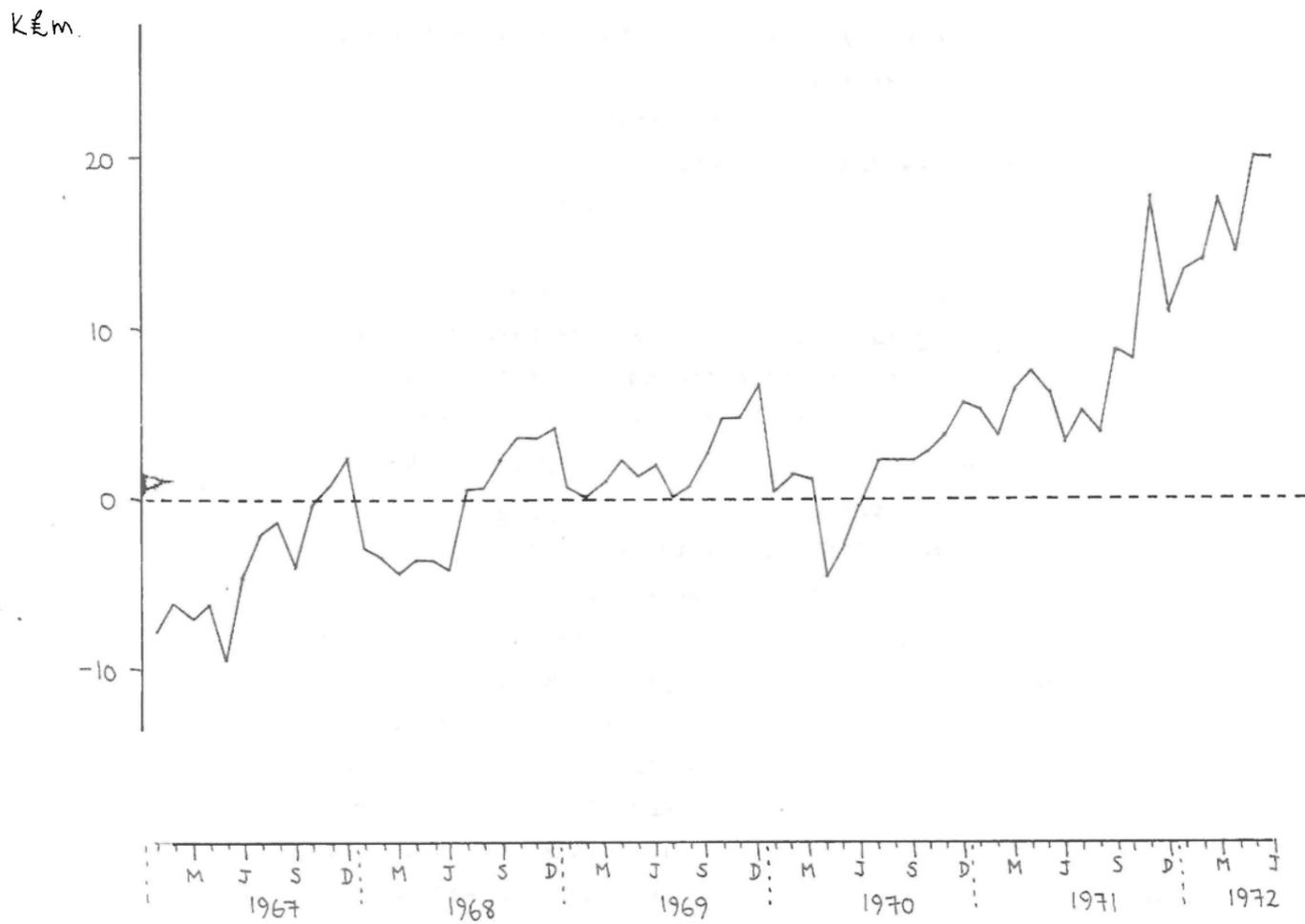
Unfortunately for the length of this paper, the answer to that question is "yes". There are two main reasons why Government's deficit financing in 1970/1 fails to provide an adequate explanation on its own of the events of 1971.

The first is a matter of degree. It is possible to estimate, very crudely and on the basis of some rather simple assumptions, by how much K£ 15 millions of Government short-term borrowing would deplete the foreign exchange reserves. If exports continued at a constant rate, the equilibrium reserve loss would have been rather less than K£ 15 m. provided that the commercial banking system did not respond to the receipt of cash deposits resulting from the deficit-financed expenditure by expanding lending. If the commercial banking system had been fully "loaned up", and had responded to the receipt of deposits by expanding its lending, the loss of reserves could have been much greater than this; but even in this case, given plausible values for the relevant parameters of Kenya's monetary system, the loss of reserves would have been much less than the K£ 40 m. which was necessary, in 1971, to reduce them to the level of four months' imports.¹⁹ Thus there would have been a fall in reserves, but no crisis. Indeed if ever there was a strong case for Government to indulge in deficit financing at the expense of the foreign exchange reserves, 1970/1 would seem to have been an appropriate time. But then the fall should have been welcomed as the inevitable result of a sensible budget strategy.

The second reason is a matter of timing. When Government undertakes deficit financing, by borrowing from the Central Bank or by selling

Treasury Bills to the commercial banks, the immediate effect is an increase in Government deposits with the Central Bank. It is only when these deposits are spent that there is an injection of money into the economy. Thus the effect of Government's activities on the monetary system from one month to another is best shown not by the amount of deficit financing already undertaken (according to Government's revenue and expenditure accounts) but by end-of-the-month changes in Central Government's net indebtedness to the banking system. Figure 4 below shows Central Government indebtedness to the banking system at the end of each month from July 1967 to July 1972.

FIGURE 4 : CENTRAL GOVERNMENT INDEBTEDNESS TO THE BANKING SYSTEM.



This Figure shows very clearly that until the middle of 1971, net borrowing from the banking system by the Central Government was relatively modest: it was not until after the foreign exchange reserves began to decline in April of that year that the major part of the deficit financing of 1970/1 began to have an impact on the monetary system.²⁰ The initial decline in reserves must therefore have been due to other factors. In order to investigate what these might have been, we must once again go back some way in history.

Part 4 : Bank Credit Expansion to the Private Sector.

Throughout most of the colonial period, and indeed up to 1965/6, the financial and monetary system in Kenya was closely integrated both with that of the remainder of East Africa, and with that of the Sterling Area with London at its centre. The operation of the system in this period has been thoroughly analysed elsewhere²¹, so we need only consider some of the main points here.

The system was a very "open" one. As we have noted, until 1955 the issue of currency was automatic: the Governments in East Africa had no direct powers to influence the amount in circulation, and even after 1955 this power was a restricted one. Second, even if the Government had had power over the currency base, this would not have given it power to control the supply of money, which according to most definitions (and certainly those definitions which might be appropriate in Kenya) includes bank deposits as well as currency. In a closed system, with commercial banks maintaining their lending at the maximum level permitted by their reserve of cash and liquid assets and by the minimum "liquid asset ratio" permitted by law or by considerations of prudence, control over the currency base and over the supply of short-term financial assets may ensure control over the total money supply. But the commercial banks in East Africa were branches of international banks, with unrestricted access to the liquid reserves of their head offices. Thus the effective liquid reserves of the commercial banks in East Africa could be considered to be, for all practical purposes, infinite. It follows

that there was no limit on the amount of credit which they could extend in East Africa, apart from the number of profitable and prudent outlets for bank funds. The supply of bank credit was therefore determined by the effective demand for it (as perceived, of course, by the banks themselves).

At the end of the 1939-45 war the commercial banks had a very high liquid assets ratio indeed, due to wartime limitations on their lending activities and to wartime restrictions on domestic trade and production in those sectors of the economy which might otherwise have provided an outlet for the banks' funds. But from 1945 onwards bank lending expanded to reach, by the mid-1960's, a level above what would have been possible had the banks not been able to borrow cash and "liquidity" from their head offices in London. But in the mid-1960's important changes occurred in Kenya's monetary system, which effectively ended the openness that made this situation possible.

First, with the approach of independence there is evidence that as early as 1960 the banks were taking steps to "domesticate" their East African operations by restricting their local lending to the level warranted by the liquid assets held by the East African branches. Unfortunately for the banks, the approach of independence also led to a substantial withdrawal of deposits, which made it impossible for them to achieve this aim without cutting back their lending in a very drastic manner: rather than contribute in this way to the country's economic difficulties, the banks chose to allow their liquid assets ratio to decline further and continued to rely on the liquid reserves of their head offices. It was not until after Exchange Control had been imposed on capital exports and transfers from East Africa to the rest of the Sterling Area in June 1965 that the banks in Kenya were able to bring their lending and their own liquid assets towards the desired ratio.

In the early years of Kenya's independence, when it was hoped that the existing common market in East Africa could be preserved and indeed strengthened by a political federation, the kind of "domestication" which the commercial banks appear to have had in mind was a domestication of their East African operations, centred

on Nairobi. But in 1964 and 1965 the erosion of the common market was begun. When, in June 1965, it was announced that each of the East African countries was to have its own Central Bank, it became clear to the commercial banks that the domestication at which they had to aim was an autonomy of operations within each country. The system of seasonal inter-country lending within each bank, with Nairobi as the regional head office, had thus to be brought to an end. It was not until 1966 at the earliest that the commercial banking system in Kenya was operating fully along "national" lines.

It seems to be clear that as a matter of policy each bank would by this time have preferred not to borrow either from branches of the same bank in other East African countries, or from London. But apart from this preference there was still nothing to prevent such borrowing if it became necessary (as it did, for a brief period, at the end of 1967); and there was still nothing to prevent the banks from continuing to utilise deposits with their London offices as a means of earning interest on some part of their liquid reserves. In the third quarter of 1967, however, the commercial banks were required to reduce such overseas assets to the level of working foreign exchange balances, in accordance with the declared policy of centralising Kenya's foreign exchange reserves in the hands of the Central Bank. The effect of this requirement was to create an important demand within Kenya for short-term domestic assets such as Treasury Bills. Then, in 1968, the Banking Act required the banks to maintain their reserve capital within Kenya (as mentioned in the previous section) and formally completed the process of domestication.

The other part of this major revolution in Kenya's monetary system was the setting up of the Central Bank in 1966. For the first time in history the Kenya Government had an instrument through which it could control not only the supply of currency, but also (in a variety of different ways, spelt out in the Central Bank of Kenya Act²²) the level of commercial bank credit, and so the total money supply.

The first eighteen months of the Central Bank's operations were relatively quiet. The Bank concerned itself with the issue of the new Kenya currency; with organising an inter-bank clearing house; with opening accounts for the Government and for the commercial banks;

with organising the collection of monetary data; and with taking over from the Treasury the administration of exchange control and the national debt. In this period the Bank did not feel it necessary to exercise its powers over the level and direction of commercial bank lending.²³

The first major test came on 18 November 1967, when Britain devalued the pound Sterling. After a short period of debate and uncertainty, it was announced on 21 November that the Kenya shilling would not follow this devaluation. Thus the exchange rate between Kenya's currency and that of Britain, which had remained constant ever since 1920, was altered. This seems to have led to some considerable uncertainty in the private sector: businesses, fearing an eventual devaluation of the Kenya shilling to the old parity with Sterling, began to repay some of their short-term overseas debts and tended to speed up their payments for imports, covering a perceived exchange risk by borrowing in Kenya rather than overseas. The effect of this was a sudden expansion of the demand for (and supply of) bank credit in Kenya, and a sudden, but temporary, fall in Kenya's foreign exchange reserves.

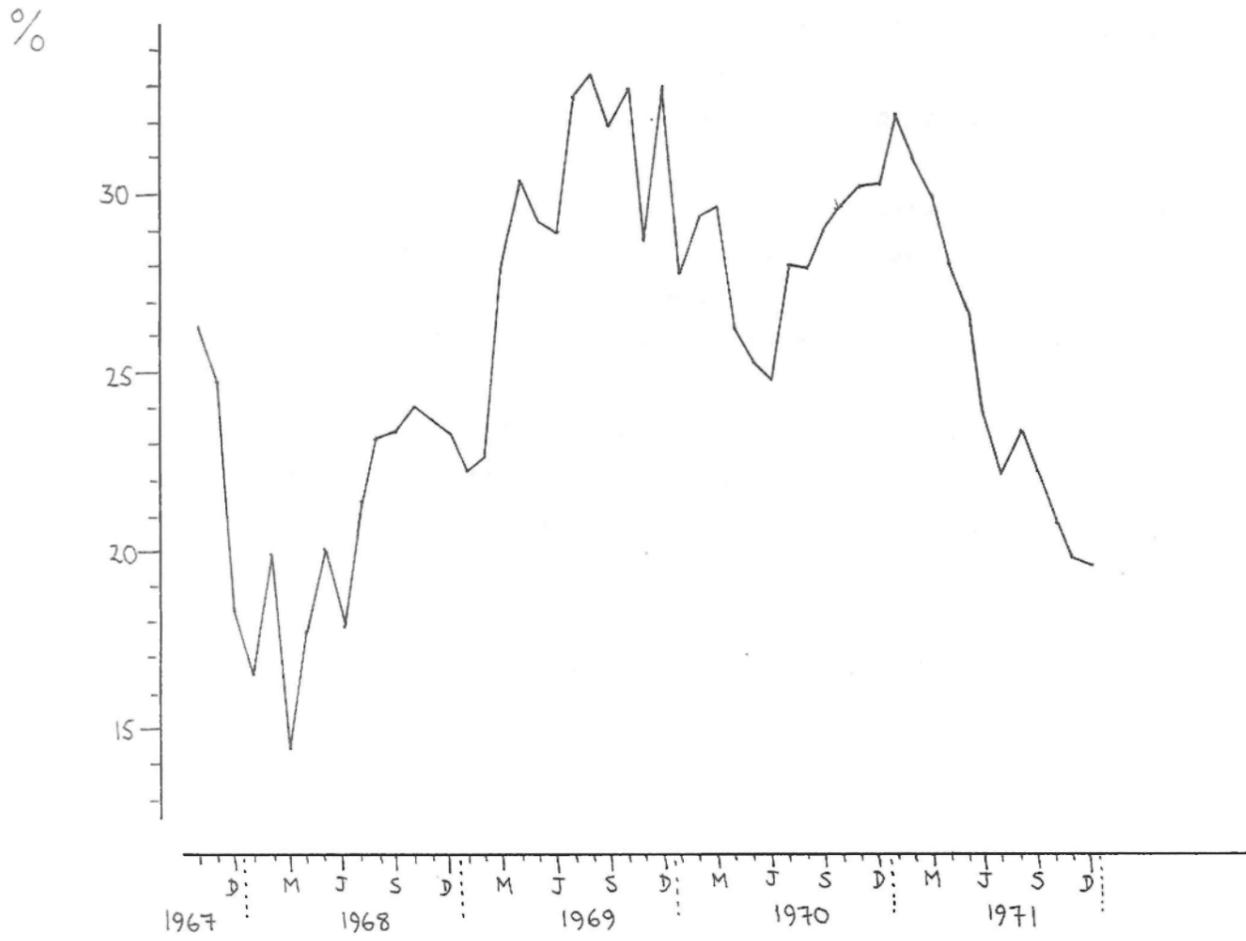
"Under these circumstances the Bank took action which aimed, on the one hand, at reducing the demand for advances by the business community and, on the other, at reducing the supply of loanable funds."²⁴ First, the Bank began to sell Sterling forward, thus eliminating the need for importers and exporters to cover what they saw as an exchange risk by borrowing Kenya shillings to sell for spot Sterling. The provision of this facility would not have reduced the demand for advances, as the Central Bank appears to have suggested; but it would have prevented the borrowing from having an immediate effect on the country's foreign exchange reserves. And by transferring cash from the commercial banks to the Central Bank, it would have tended to restrict the supply of credit. Second, at the end of November 1967 the Central Bank prohibited inter-bank lending in Kenya, which would have had the effect of raising the level of liquid reserves which the commercial banking system taken as a whole would feel it prudent to maintain. This prohibition was lifted in July 1968. And third, the Central Bank requested the commercial banks to refuse new credits for speeding up payments for imports, though it gave no guidance about how these might be recognised.

In general, however, the Bank reacted very coolly to the reserve loss - as indeed was appropriate for a loss which had been diagnosed as a temporary one which would correct itself in time if treated with "benign neglect". The mildly restrictive measures mentioned above were more in the nature of a flexing of the Bank's muscles than anything else. Its broad policy was the distinctly *laissez faire* one of "letting the diminishing liquidity of the banking system have its full impact on their willingness and capacity to lend ... (and of not putting) any obstacles in the way of the commercial banks' borrowing from abroad in order to meet commitments arising from their credit activity in Kenya." ²⁵ The rapid recovery of the foreign exchange reserves early in 1968 both confirmed the Central Bank's diagnosis of the reserve loss and justified the wisdom of its *laissez faire* policy on this occasion.

There is an important lesson to be drawn from this non-crisis in 1967. The Central Bank did not use the powers which it already had (and which were spelt out in more detail in the Banking Act of 1968) to prescribe statutory minimum liquid asset ratios for the commercial banks. Instead it assumed that there was some minimum ratio of liquid assets to deposit liabilities which the commercial banks, if left to their own devices, would wish to hold; and it was prepared to let this ratio set a maximum limit on commercial bank lending. It was not until 1 December 1969 that a statutory minimum ratio, of 12.5 %, was prescribed. Though it is not possible to be certain what the commercial banks' desired ratio was - and in any case the "desired ratio" would be likely to have been a somewhat flexible one - it seems reasonable for us to assume that the actual ratio established after the 1967 episode (by about mid-1968) would provide a reasonable indication of the banks' target. Figure 5 below shows the liquid assets ratio of Kenya's commercial banking system at the end of each month from October 1967 to December 1971²⁶.

Between March 1969 and March 1971 the commercial banks in Kenya had a liquid assets ratio of around 28%, which is the figure which banks in Britain are required by law to observe as a minimum. But there is no reason at all why a safe ratio in Kenya should be the same as the legal minimum in Britain. Certainly, in these two years both the Government and the Central Bank felt that commercial bank

FIGURE 5 : LIQUID ASSETS RATIO OF THE COMMERCIAL BANKS, Oct 1967 - Dec 1971.



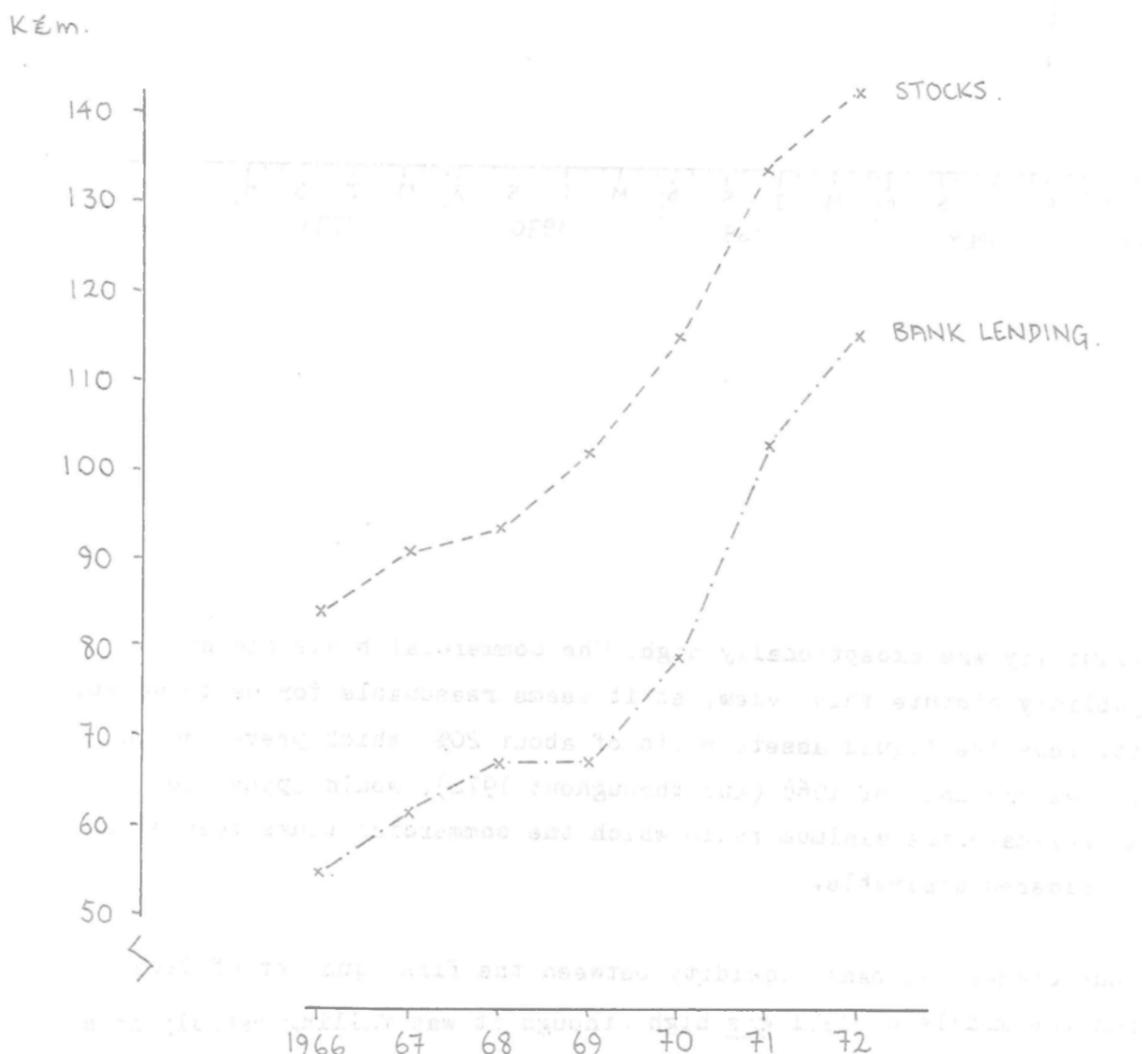
liquidity was exceptionally high. The commercial banks did not publicly dispute this view, so it seems reasonable for us to accept it. Thus the liquid assets ratio of about 20%, which prevailed in the second half of 1968 (and throughout 1972), would appear to approximate the minimum ratio which the commercial banks themselves considered desirable.

Thus commercial bank liquidity between the first quarter of 1969 and the middle of 1971 was high (though it was falling rapidly from

January 1971 onwards) : during this period the commercial banks were not fully "lent up". It follows that, at least in the two years before the 1971 crisis, the level of commercial bank lending must have been determined by the effective demand for loans (as perceived by the commercial banks) rather than by the supply of loanable funds. We must now consider what determined the demand for loans from the commercial banks. The proposition which will be advanced here is that changes in commercial bank lending since the mid-1960's in Kenya can be almost exactly "explained" (in a statistical sense) by changes in the economy's inventory stocks.²⁷

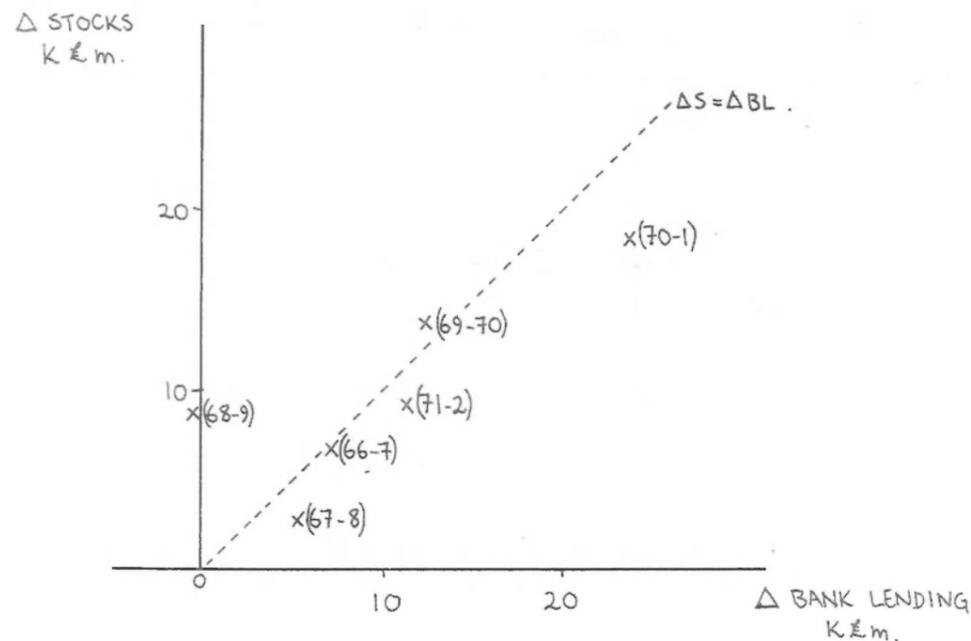
Figure 6 below shows the level of stocks at the end of each year, and the level of commercial bank lending to the private sector and statutory corporations (average end-of-quarter figures) for the years 1966 to 1972.

FIGURE 6 : BANK LENDING AND STOCKS, 1966 to 1972.



The correspondence between these two time-series appears to be a close one. In order to subject it to a closer examination, we have plotted, in Figure 7, the relationship between annual changes in stocks and changes in average bank lending to the private sector and statutory corporations for these years.

FIGURE 7 : THE RELATIONSHIP BETWEEN CHANGES IN STOCKS AND CHANGES IN BANK LENDING, 1966-7 to 1971-2.



As is well known, to attempt to relate the "first differences" of two time-series, as we do in Figure 7, is to subject the relationship between the underlying series to a very stringent statistical test indeed.²⁸ Our data passes this test surprisingly well: with the single exception of the 1968-9 observations, there appears to be a remarkably constant relationship between changes in stocks and commercial bank credit expansion. With so few observations and hence degrees of freedom, a regression line showing this relationship would be of dubious value: Figure 7 instead contains a line illustrating equality between stock-change and bank credit expansion. In five cases out of six, our observations lie very close to this line. It seems not altogether unreasonable for us to proceed on the assumption of a one-to-one correspondence between stock-change and bank credit expansion.²⁹

We shall now assume that in the second half of the 1960's changes in

the enterprise sector of the economy's demand for stocks caused changes in the demand for and hence supply of bank loans, rather than vice-versa. (This rather extreme assumption will be modified shortly). Our problem therefore is to explain why stocks should have behaved as they did.

The main determinant of the demand for stocks in the enterprise sector is likely to be the level of monetary G.D.P. We therefore show, in Figure 8 (i) the relationship between the level of stocks and the level of monetary G.D.P. at market prices; and (ii) the relationship between percentage changes in stocks and percentage changes in monetary G.D.P. at market prices, for the years 1966 to 1972.

FIGURE 8 : THE RELATIONSHIP BETWEEN STOCKS AND MONETARY G.D.P. AT MARKET PRICES.

(i) absolute levels, 1966 to 1972.

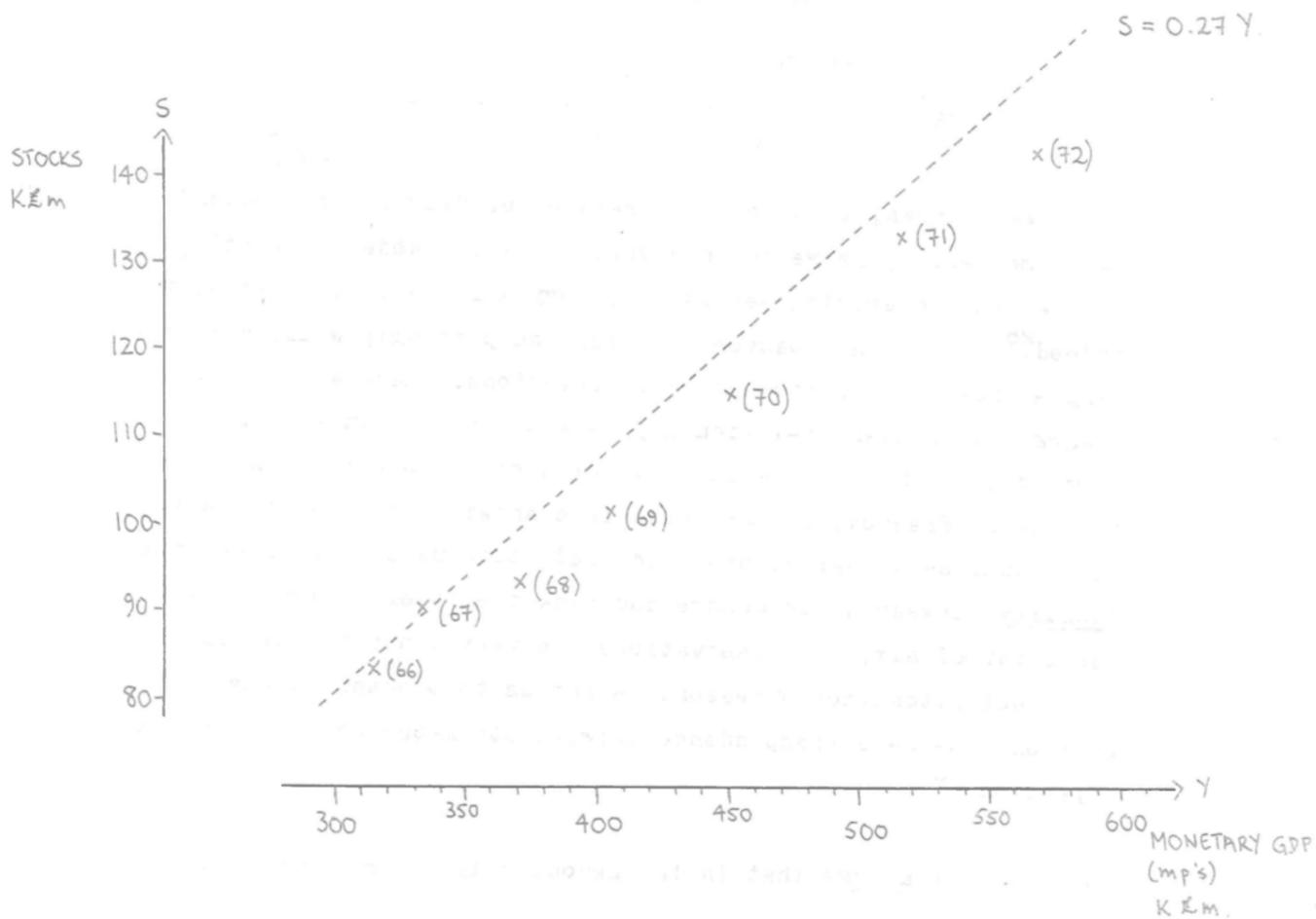
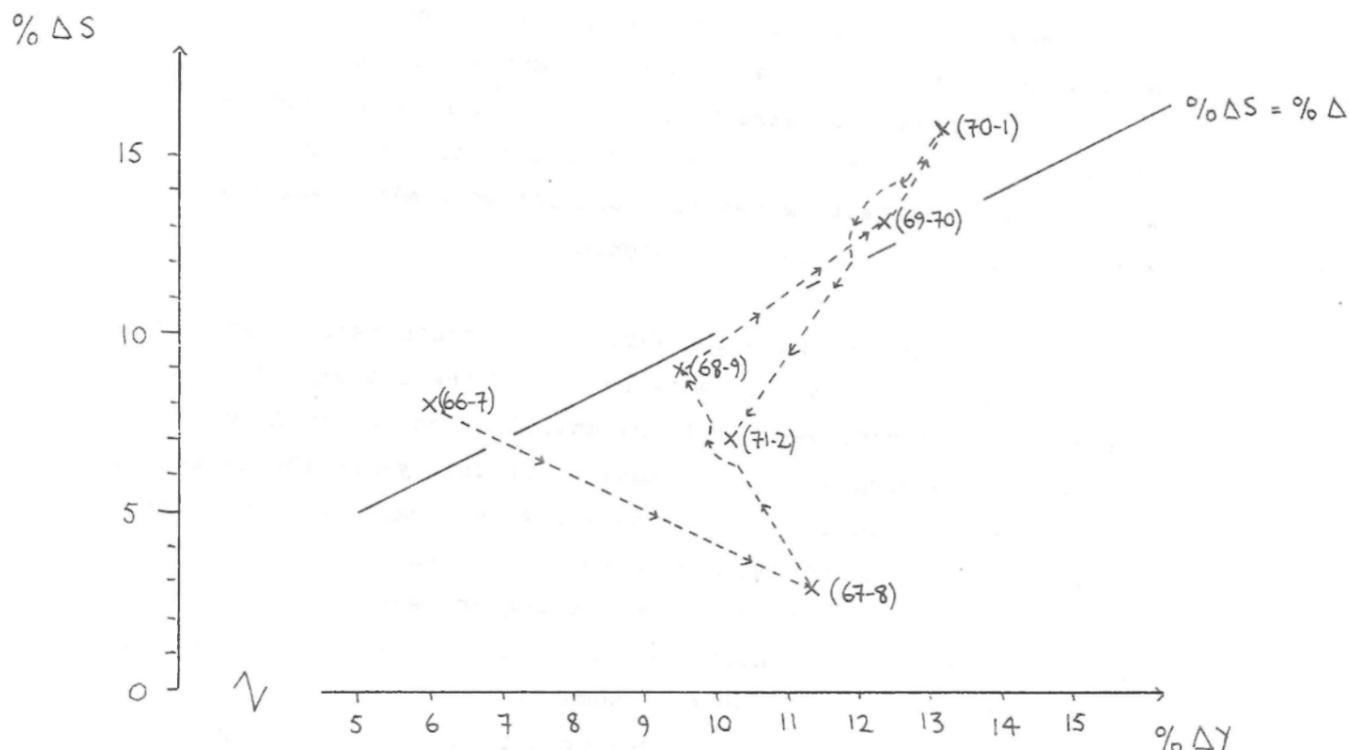


FIGURE 8 (cont.)

(ii) percentage changes, 1966-7 to 1971-2.



In Figure 8 (i) we have drawn a line illustrating what the relationship would have been if we may assume (a) that the level of stocks in 1966 and 1967 was considered adequate, and (b) that under normal circumstances the demand for stocks would grow at the same rate as monetary G.D.P. at market prices. This line is intended only to assist the reader's visual interpretation of the diagram: the two assumptions are not crucial to the discussion which follows. Figure 8 (ii) also includes a line illustrating equality between annual percentage changes in stocks and in monetary G.D.P.

Taken together, the two diagrams suggest the following pattern: in 1968 there was a dramatic fall in the demand for stocks, which seems to have continued into 1969, in 1970 re-stocking began, and in 1971 this re-stocking accelerated; finally, the demand for stocks fell once again in 1972. What explanation can be given for this pattern of annual variations in the demand for stocks?

In industrialised market economies the major candidate for consideration as an explanation of variations in the demand for stocks

would be the short-term interest rate. But it is open to doubt, for a priori reasons, how interest-elastic the demand for stocks would be in Kenya; and in any case in the period under consideration the structure of interest-rates in Kenya remained virtually constant.³⁰ We must therefore look elsewhere for an explanation. Fortunately, the annual variations revealed in Figure 8 coincide very well with what one would expect, given the politico-economic changes which were taking place in the Kenya economy.

1967 was the year in which the first major steps were taken towards the Kenyanisation of the private sector of the economy. The Immigration Act received the Presidential Assent on 18 August, and the Trade Licensing Act on 11 December of that year; the latter came into force on 8 January 1968. Both the Acts themselves, and initial uncertainties about the manner in which they would be implemented, would inevitably lead to some de-stocking in Kenya's (then) largely expatriate trading community. The Economic Survey remarked in mid-1968 on "the present tendency of the commercial sector to operate on the basis of a minimum level of stocks as a result of uncertainties over the issue of trading licences."³¹ There can be little doubt that this remark was appropriate; and it seems very unlikely that we need look any further to explain the sudden rundown of stocks in 1968, and to a much lesser extent in 1969.

1969 was a year of considerable political uncertainty in Kenya, which culminated in a General Election in December. But that election's outcome, and the emergence of a reasonably stable (and hence predictable) implementation of the trade licencing policy, do seem to have had a marked effect on "business confidence". The Nairobi Stock Exchange Index, which had remained on a plateau throughout 1968 and 1969, began to rise sharply in the early months of 1970.³² It therefore seems reasonable to attribute the recovery of stocks in 1970 and, more dramatically, 1971 to a return of "confidence". Our explanation of both the downswing and the upswing of what appears from Figure 8 to have been a stock cycle in 1967-71 is thus essentially a political one. It is of course unsatisfactory for an economist to have to rely on such nebulous concepts as "business confidence" in his explanation of events; but there are occasions, of which this seems to be one, when to do otherwise would be to ignore the most obvious

interpretation.

We may summarise the argument of this section so far as follows. Between 1967 and 1971 in Kenya, changes in "business confidence" attributable to political changes caused changes in the demand for stocks, which caused changes in the demand for bank credit, which, because loanable funds were in elastic supply, caused changes in the supply of credit to the enterprise sector of the economy. Inevitably this account is too simple, and we must now introduce some minor qualifications. In particular, the account contrasts rather strongly with contemporary statements made by the monetary authorities, and some of these we must now consider.

In June 1969 the Government's Economic Survey referred approvingly to the improvement in commercial bank liquidity which had taken place since the previous year. In the following year, when we have suggested that re-stocking was already in progress, the Survey issued a mild admonishment: "Although creditworthiness cannot be ignored in lending policies, the rising liquidity of the banks suggests that this principle of lending is being interpreted perhaps too rigidly."³³ By June 1971 the Government had detected sinister motives behind the surfeit of commercial bank liquidity, and the Survey's comment was positively threatening: "There are various reasons for this inability on the part of the commercial banks to increase their level of advances and loans sufficiently to match the rising level of deposits. One of these appears to be that the banks have not fully appreciated the nature and significance of the structural developments during the last years at the enterprise level ... they are still attuned to lending to a sector which is shrinking in the face of Kenyanization of the economy."³⁴

We shall shortly suggest that this was a grossly misleading, and dangerous, comment to make in the middle of 1971. But would it have been fair a year earlier, when the commercial banks' liquidity was still exceptionally high and showing no signs of falling? That is, could the banks have been properly accused of "hoarding liquidity", denying to new African traders loans which they would have been ready to grant to their expatriate predecessors? Both the more liberal lending policies of the Government-owned banks, the National Bank of Kenya and (more recently) the Kenya Commercial Bank, and

what might be termed "ordinary considerations of banking prudence" suggest that there was probably some truth in the charge. To the extent that this was the case, the movements in stocks described above would not have been due simply to demand factors, when "demand" is interpreted to mean "effective demand by businessmen", unqualified by the rider "as perceived by the commercial banks".

But it would be misleading to suppose that we could explain all, or even a major part of the de-stocking of 1968-9 in these terms. For the effect of commercial bank reluctance to grant credit to the new businessmen would be confined to stocks in those businesses which were actually in process of being transferred - which was a relatively small number at any point in time; or, if the commercial banks had continued to discriminate in this way the effect on stocks, and so on the banks' liquidity ratio, would have been cumulative. Instead, what we have observed is a sudden de-stocking in 1968 far too large to have been confined to those businesses which were actually changing hands. It is therefore clear that much of the de-stocking was undertaken not in businesses which were actually being Africanised, but by businessmen who, after the measures of 1967, anticipated that these businesses would be so at some uncertain point of time in the future. However liberal the banks had been in their lending policy after 1967, therefore, a fall in stocks could hardly have been avoided. The main factor affecting the level of stocks was the effective demand for them, rather than the supply of credit.

Whatever the correct balance of interpretation on this issue might have been, however, it had become by the middle of 1971 entirely irrelevant as an explanation of commercial bank behaviour. For, when the Economic Survey made its comment in June 1971, the process of re-stocking had been gathering momentum for over a year; commercial bank lending was rising at an annual rate of over 40%; the banks' liquidity ratio had been falling steeply for six months; and the inevitable consequence of this rate of credit expansion - a fall in Kenya's foreign exchange reserves - had been happening for three months. By the fourth quarter of 1971, when commercial bank liquidity had fallen to the minimum level that we have suggested the banks found it prudent to hold, the foreign exchange reserves had fallen to a level (of slightly over four months' imports) which.

without the stock "cycle" of 1967-71, they would otherwise have reached in a rather less erratic manner. It was at roughly this point that Government's deficit financing in 1970/1, discussed in the previous section, began to take effect.

Part 5 : Conclusion.

The previous two sections of this paper have sketched in very broad outline the financial background to the reserve crisis of 1971. It is not the purpose of this concluding section to draw in detail the many morals which emerge from the record : that task must await a more thorough statistical analysis than has been possible here. We shall confine ourselves to a summary of the argument, and to fitting together the pieces of the jigsaw which earlier sections have considered separately.

What, then, did happen in 1971? On the basis of our account, we may assert:

- (i) that the rapid growth of reserves in the three years before the crisis was a misleading indicator of the "health" of Kenya's balance of payments; it was due, rather, to a rundown of inventories in the enterprise sector of the economy;
- (ii) that reserves began to decline in April 1971 because of rapid bank credit expansion to the enterprise sector to finance a recovery of stocks from their depressed level of the preceding few years;
- (iii) that this recovery of stocks was in itself eminently desirable, and if it had been the only factor causing the reserve loss this loss would have cured itself by the end of 1971 without causing Kenya's reserves to decline significantly below the level which was considered a reasonable safe minimum.
- (iv) This was not, however, the only factor. In 1970 the Government had set in motion a record level of deficit-financed expenditure:

the impact of this on the financial system was delayed, but it was certain to begin affecting the foreign exchange reserves directly from about mid-1971 onwards and to open up the prospect of a multiple expansion of credit to the private sector which could possibly have caused the reserves to disappear completely.

The seriousness of the crisis now emerges in sharp focus. The recovery of private sector stocks, and the reserve loss which financed it, should on its own have been welcomed. Alternatively, if this recovery had not been taking place, there was (as we suggested in part 3) a strong case for Government itself to deplete the reserves by the type of deficit spending which was irreversibly in the pipeline by mid-1971. Neither of these things, on its own, would have reduced reserves below the level which was considered safe. But they could not both happen without the reserves falling far below that level, unless the Government was prepared to take the drastic measures which the 1970-4 Development Plan had mentioned, and declared to be undesirable.

There is thus a strong prima facie case for the conclusion that Government's financial policy up to the end of 1971 was not only a necessary, but also a sufficient condition for the crisis. Like Winnie-the-Pooh in the quotation with which this paper began, the Government faced a choice between three things, any two of which were compatible. Unlike Pooh it believed, until too late, that it could reconcile all three.

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STATISTICAL APPENDIX.

This Appendix does not present all the data on which the Figures in the text are based. My aim in presenting it is partly to allow the reader to check the most important calculations, but mainly to indicate where the data comes from.

TABLE 2 : CENTRAL GOVERNMENT REVENUE AND EXPENDITURE.

YEAR	K&m				
	RECUR. REV. & DP EARNINGS	EXT. LOANS & GRANTS	L-T DOM BORR'G.	S-T DOM BORR'G.	TOTAL EXPEND.
1959/60	37.94	6.01	1.75	"	46.36
1960/61	38.09	12.04	0.30	"	50.94
1961/62	40.64	12.63	0.29	"	52.37
1962/63	44.62	13.60	-	"	57.73
1963/64	48.12	20.73	-	"	68.13
1964/65	51.56	20.44	1.03	"	70.54
1965/66	56.95	14.53	2.01	"	77.52
1966/67	66.41	11.31	7.82	"	84.88
1967/68	77.94	9.73	8.29	0.72	94.57
1968/69	85.39	8.08	8.29	5.59	104.98
1969/70	98.33	12.22	13.64	5.07	121.46
1970/71	124.36	11.77	8.12	15.00	156.81

" indicates very small (below K& lm.)

Source: The figures for 1964/65 to 1970/71 in this table have been taken from the Kenya Statistical Abstract 1972, Table 194 ("The Financing of the Government Deficit"). The figures for earlier years have been obtained from earlier Abstracts on the basis of the very helpful explanation at the foot of the 1972 Table of how the figures in the various Government accounts can be reconciled.

TABLE 3 : MONETARY G.D.P. AT MARKET PRICES. (K&m)

1966	314.4
1967	333.2
1968	370.7
1969	405.8
1970	455.8
1971	516.1
1972 ^a	568.4

a indicates a provisional figure, published in the Economic Survey 1973.

Source: These figures have been obtained from the Tables labelled "Use of National Resources" in the Kenya Statistical Abstracts (and Economic Surveys), by subtracting from total G.D.P. at current market prices the figure for Non-monetary G.D.P.

TABLE 4 : MONETARY DATA (K&m)

YEAR	QUARTER	1	2	3	4	5	6
1966	4	42.06					83.9
1967	1	44.17	-6.78				
	2	43.61	-4.95				
	3	45.13	-3.94				
	4	31.59	2.12	66.89	15.68	85.03	90.6
1968	1	35.96	-4.44	69.79	12.35	84.92	
	2	38.21	-3.88	66.88	15.16	85.23	
	3	41.11	2.18	64.37	20.96	89.47	
	4	43.59	3.90	65.72	22.28	95.13	93.2
1969	1	52.62	1.04	63.54	27.45	98.96	
	2	55.43	1.87	66.26	30.51	105.31	
	3	63.11	3.31	67.53	34.18	107.39	
	4	65.11	7.13	69.42	37.21	112.93	101.7
1970	1	74.70	1.13	73.74	36.36	123.10	
	2	72.55	-0.29	80.01	31.24	125.35	
	3	77.99	2.34	77.21	38.53	133.19	
	4	83.93	5.69	84.27	44.15	146.19	115.1
1971	1	89.09	6.60	90.32	44.86	149.66	
	2	75.09	3.85	100.14	36.83	154.77	
	3	64.70	8.87	107.96	35.02	157.98	
	4	62.76	11.00	114.13	31.04	159.34	133.1

Column 1 shows Kenya's foreign exchange reserves. The figures are taken from the "Monetary Survey" Tables of the Annual Reports of the Central Bank.

Column 2 shows Central Government's indebtedness to the banking system. The figures are from the same source.

Column 3 shows commercial bank lending to the "enterprise sector," defined here as total commercial bank lending less lending to Government. The figures are taken from the "Commercial Banks: Analysis of Bills, Loans and Advances" Tables of the Annual Reports of the Central Bank.

Column 4 shows Liquid Assets of the commercial banks, defined here as cash, balances due by banks abroad, and Treasury Bills. The figures are

taken from the "Commercial Banks: Assets and Liabilities" Tables of the Annual Reports of the Central Bank.

Column 5 shows total commercial bank deposits. The figures are taken from the same source.

Column 6 shows the level of stocks in the economy. The figure for 1968 is taken from the Kenya Statistical Digest, vol. 7, no. 2 (June 1969); those for the other years have been calculated from figures for stock changes published in the "Use of National Resources" Tables of the Kenya Statistical Abstracts.

A final word about the reliability of the statistics. Those in Table 2, and columns 1 - 5 of Table 4, are likely to be very accurate indeed. The G.D.P. figures in Table 3 are likely to be much less so, although Kenya's monetary G.D.P. figures are relatively good by international standards. The stock figures in column 6 of Table 4 are probably less reliable still, though I am not sure about this.

NOTES.

1. The unit of currency in Kenya is the Kenya shilling. However the Central Bank of Kenya Act stipulates in Section 19 (2) that "Twenty shillings shall equal one Kenya pound"; and since the pound is a more convenient unit than the shilling for comparing the very large sums of money with which this paper is concerned, all sums of money are referred to in units of million Kenya pounds.
2. Bernstein (1956), p 159.
3. I.L.O. (1972), pp 98-9.
4. A good summary of the controversy can be found in the articles by de Oliveira Campos, Felix and Grunwald in Hirschman (1961). The best formal statement of the "old" structuralist view is Seers (1962). The views of the I.L.O. Reports, (1970), (1971) and (1972) are in the same tradition, though these reports seek to explain a different problem and therefore do add considerably to the "old" structuralist view.

A structuralist interpretation of Kenya's balance-of-payments problems of an entirely different sort has recently been advanced by Power (1972). As an explanation of the 1971 crisis in Kenya this interpretation is open to the same objections as the present paper makes to the view of the I.L.O. Report.

5. Kenya, Economic Survey 1972, pp 23-7.
6. This rather abrupt statement is based on the reserve-loss implications of Domestic Credit Expansion to be derived from the "Polak model". The model is set forth in Polak (1957) and Polak and Boissonneault (1959), and expounded in Bolnick (1973) and pp 73-85 of Newlyn (1968).

The evidence suggests that the Polak model - subject to certain modifications, which are necessary in the light of the conclusions reached in the present paper - fits the Kenya economy of recent years rather well. However, since the marginal velocity of circulation of money seems in Kenya to have been less than the average velocity, the reserve loss consequent upon any given D.C.E. will be somewhat less than the D.C.E. itself.

But the Polak model is an aggregate model, and therefore not suitable without modification for dealing with the question of how the initial direction of D.C.E. will affect the consequent reserve loss. In terms of the model, the initial direction of D.C.E. is relevant to the size of the reserve loss only to the extent that it changes the velocity of circulation of money, and/or the import-income ratio. If the wealthy both save, and import, more than the poor, the provision of D.C.E. to the wealthy in the first instance may raise the import-income ratio but it will also tend to lower the velocity of circulation. These two effects will work in opposite directions. It is therefore very much open to question whether, and if so in what way, the initial direction of D.C.E. will affect the size of the resulting reserve loss.

7. Loxley (1965); Newlyn (1967).
8. Kratz (1966).
9. Gaskin (1965); Loxley (1965); Loxley and Newlyn (1967); and Newlyn (1967).
10. Newlyn (1967), p 34.
11. This summary of the Kenya Government's "fiscal problem" at the time of independence is based on I.B.R.D. (1963).
12. The Kenya Government accounts, as published, are divided into a "Recurrent Account" (which before independence was called the "Colony Account") and a "Development Account". The allocation of expenditures between these two accounts appears to be on the basis of whether the expenditure will or will not give rise either directly or indirectly (through its effect on G.D.P.) to higher Government revenues in future years; but the allocation is inevitably a rather rough-and-ready one. The allocation of revenues between the two accounts is in many cases a matter of convention, with little if any economic significance. Thus short-term borrowing on Recurrent Account is done through the issue of Treasury Bills; short-term borrowing on Development Account is done through borrowing from the Central Bank.

The distinction is not a useful one for the purposes of the present paper, and in our discussion of Government revenues and expenditures we have therefore amalgamated the Recurrent and Development Account figures, eliminating transfers between them.
13. I.B.R.D. (1963).
14. An excellent discussion of this empirical problem, in the Ghana context, can be found in Ahmad (1970), esp. pp 26-36.
15. See the comment on these two forms of borrowing in note 12 above.
16. The Cereals and Sugar Finance Corporation in Kenya is a rather unusual source of short-term finance for Government. A brief explanation of how it works can be found in Central Bank of Kenya (1972), pp 28 and 32; there is a more extended discussion in Loxley (1965), chapter 4.
17. Republic of Kenya (1969).
18. Mitchell (1970), p 32.
19. The rough calculations in this paragraph are based on the "comparative static" implications of a combination of the Polak model and orthodox bank deposit multiplier analysis.
20. There appears to be some discrepancy between the published Government accounts, and the Central Bank figures presented in Figure 4, on the question of the actual amount of net Central Government borrowing from the banking system between 1 July 1970 and 30 June 1971. This discrepancy is almost certainly due to the fact that payments into and out of the Exchequer account do not always occur exactly in the financial year in respect of which these payments are made. In an analysis of

the impact of Government finance on the economy, the figures published by the Central Bank (which show the actual position at any point in time) are therefore to be preferred.

21. For the period up to 1950, see Newlyn and Rowan (1954); for the period from 1950 to the mid-1960's see Loxley (1965) and Newlyn (1967). A good description (rather than analysis) of the commercial banks in East Africa at the end of the 1960's can be found in Pauw (1970).
22. Central Bank of Kenya Act (Laws of Kenya, Chapter 491) esp. Sections 38-40. See also the Banking Act (Laws of Kenya, Chapter 488) Section 18.
23. Central Bank of Kenya, Annual Report 1967.
24. Central Bank of Kenya, Annual Report 1968, p 21.
25. Central Bank of Kenya, Annual Report 1968, p 21.
26. The liquid assets ratio shown in Figure 5, which is based on the figures for banks' liquid assets and total deposits shown in the Statistical Appendix, Table 5, does not correspond exactly with the liquid assets ratio as defined by the Central Bank. Unfortunately the Central Bank has only published figures showing banks' liquid assets and deposits defined in accordance with the statutory minimum ratio since that statutory ratio was introduced in 1969. In order to push the series further back in time, we have therefore been obliged to use a rather different definition. During the period for which the Central Bank has published figures showing the liquid assets ratio of the commercial banks, however, the correspondence between these figures and those shown in Figure 5 has been very close indeed, which suggests that the discrepancy is unimportant.
27. I am indebted to Prof. S.R. Lewis Jr. for drawing my attention to the recent behaviour of stocks in the Kenya economy in an informal seminar at the Institute for Development Studies in January 1973. Prof. Lewis is not however responsible for the specific ways in which stock-changes enter into the argument of this paper.
28. The reason is that independent errors of measurement in the original stock series introduce negative serial correlation into first differences. This is a familiar problem in monetary econometrics.
29. The actual regression of stock-change on change in average bank lending is as follows:

$$S = 4.50 + 0.52 BL \quad R^2 = 0.65$$

where S is an annual change in stocks,
and BL is an annual change in bank lending to the
enterprise sector (between the average of the four end-
of-quarter figures),
both expressed in millions of Kenya pounds.

(The product-moment correlation coefficient r is significant at the 0.05 level, despite the few degrees of freedom).

30. This is true for all interest rates except the Treasury Bill rate. During 1969-70, when the commercial banks were highly liquid but when they were no longer able to earn interest on their liquid assets by lending short-term overseas, the Central Bank was able to drive the Treasury Bill rate below 2% by the simple expedient of ceasing to pay interest on commercial bank deposits with itself. There is some reason for believing that it was in part the unusual cheapness of this form of borrowing which tempted the Government into a resort to deficit financing on a major scale. If so, the artificial cheapness of borrowing through the issue of Treasury Bills was rather dangerous; for, despite frequent assertions to the contrary by the Central Bank, this form of borrowing does not "soak up" commercial bank liquidity.

The important point for present purposes, however, is that variations in the rate on Treasury Bills were insulated from the remainder of the interest-rate structure. Short-term lending rates of the commercial banks remained constant throughout the period.

31. Kenya, Economic Survey 1968, p 157.
32. As a barometer of "business confidence", the Nairobi Stock Exchange Index has to be treated with some care. This is partly because of the rather unrepresentative character of the firms covered by the Index (which is discussed in the Economic Survey 1970, p 25). More seriously, however, of the two periods since independence when the Index has risen significantly, the first, which began in the second half of 1965, clearly had very little to do with "confidence" but a very great deal to do with the imposition of Exchange Control in June of that year. I do believe, though, that the rise in the Index during 1970 and 1971 was largely due to "confidence" factors.
33. Kenya, Economic Survey 1970, p 23.
34. Kenya, Economic Survey 1971, p 26.

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