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# MONETARY EXPANSION IN AN EAST AFRICAN ECONOMIC DEVELOPMENT:

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#### 1. Introduction

- The growth of money supply, we can state boldly, is as function of the growth of the national economy lato sensu; i.e. of the growth of the national income, or in the East African case, of the GPD. In terms of the classics, in order that there be equilibrium, money supply must grow at the rate of the growth of the national income. In this case, inflationary and deflationary tendencies are automatically regulated by the rhythm of the economy. Indeed, since the national income is simultaneously a generator of money incomes and expenditures (1), it goes without say that the two factors are intricately correlated. It is thus both logical and desirable that in projecting the future level of money supply of any one nation or community, the national income or GDP. be the basis of the projection, because, as we have said, to each level of national income or GDP, there corresponds a given pattern of money supply, subject of course to the community's habits and established customs concerning banking and outlays. In normal periods, however, and over a short period of time, habits or customs are likely to vary less violently; thus, projection is apt to be more or less correct to undertake.
- 2. This paper sets out to suggest, in a speculative manner, how the East African money supply, for the period of eight years, i.e. 1962 to 1970, could be reasonably expanded to provide development capital for the constituent territories. The aim is: 'what share of the 1970 money supply could be devoted to the East African development projects, both public and private.

#### II. THE EAST AFRICAN CURRENCY BOARD.

- 3. It will be useful here, to sketch the operation of a currency board system. Under the present Board's authority, any substantial or appreciable monetary expansion could only be financed by an import of sterling. The present Currency Board is largely on sterling exchange system, under which a currency issue may be expanded if an equivalent value of sterling is deposited in the Board's London office. Conversely, currency issue may be contracted by paying the Board's currency into the authority in exchange for sterling. Thus, the Board's currency in the economy can be expanded by: a) sterling earnings of the East African exports; b) sterling loans to East Africa; and c) import of sterling balances by banks and commercial companies operating in East Africa. The inverse case will; produce contraction in the Board's currency in circulation.
- 4. If then any policy aimed at monetary expansion is to be achieved, it goes without say, that the Board's present statutes must be revised to allow the Board a latitude of flexibility and power to control the banking and financial intermediaries.

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per

(1) both consumption and investment expenditures.

On its own initiative, the Board has brought to the notice of the East African Governments the fact that in theinterim period, that is from now to the establishment of the central bank, "the Board would be better placed to meet the developing situation if its authority could be strongthened and if it were given certain powers of action in law. Both would require amendments to the Board's con- " stitution and these could have immediate and secondary advantages (2). These powers relate more specifically to reserved and liquidity requirements which are important for broad directives on credit policy. These powers, if granted, would have allowed the present Surrency Board to accomplish many 66 the functions of a full central bank, including guidance and control of the commercial banks and other financial intermediaries. Until the constitution is amended and more power granted, the Board remains fundamentally a body that issues and redoems currency automatically on demand against sterling and vice versa.

- bank will finally be established to serve the whole of East Africa. The establishment of central banks in the newly independent African nations must not only be viewed as an outward symbol of the achievement of monetary sovereignty, but above all, because a central bank has an important role in laying a foundation for future policy making. If the domestic economy is to grow faster than before (understood as an attainment of higher per capita income), a steady flow of the right kinds of capital and credit is required. It is the aim of a central bank to create such an atmosphere. This means that the central bank must be realistically imaginative to device ways and means by which credit can safely be advanced to the domestic economy within the limits imposed by the necessity to saveguard the stability of the currency both internally and externally.
- 6. There are of course obstacles for central banks, in the less financially matured countries, to perform their task effectively. Of these, the most important are: the lack of domestic monetary and financial markets, and the dependence on expatriate banks. These handicaps do not necessarily invalidate the need for a central bank. On the contrary, a central bank is required to encourage and assist the formation of these domestic monetary and financial institutions. The experience in six other African countries (3) prove that the central bank can usefully contribute to accelerate economic development.

#### III. The Commercial Banks and Insurance Companies

7. The total of money supply available to the economy is equal to currency in circulation plus the demand deposits of the commercial banks. Demand deposits are considered as money because they are used in the day to day transactions; and since commercial banks can increase the volume of demand deposits at their will, it is essential that their activities be guided in order to bring about the desired expansionary objective that this paper envisages. In particular, the monetary authority must tap the profit—incentive of the commercial banks and direct their activities in the path of expansionary policies.

<sup>(2)</sup> E.A. Currency Board: Report for the year ended 30th. June, 1964.

<sup>(3)</sup> Ghana, Nigeria, Sudan, Tunisia, Morecco and Egypt (U.A.R.)

In the case of Tanganyika, were differences in GDP figures appear in official publications, I have always taken the greater estimates following suggestion by H.W. Ord (7) that most GDP figures were under-valued. In the case of Kenya and Uganda, the post 1954 estimates in official publications are adopted without any change.

### V. METHOD OF CALCULATING THE ELASTICITY CO-EFFICIENTS.

16. Having compiled monetary data covering the period 1946/62, the next step was to divide this period into two sub-periods, viz., 1946/54 and 1954/62, using the entire 1946/62 period for a check. The reason for the sub-division is to permit observations on changes in monetary growths, and to calculate elasticity co-efficients required for the purpose of projections envisaged in this paper - both during a period of rapid money income growth, led by buoyant export and including the world-wide post-war price inflations. and during a period of slower money income growth, characterissd by some export difficulties and broadly stable prices. Ratio of changes of monetary parameters are shown below:

Rations of Change of Monetary Parameters:

Y	1946/54	1954/62	1946/62
1 -	I.	EAST AFRICA	
and the same of th			*
Monetary GDP Money supply Index of debitsto	2.31	1.43	5.17 2.54
current accounts	4.22	1.89	7.98
currency	2.14	1.20	2.57
Time and Savings deposits	22.99	1.56	3.27
	II.	KENYA	
Monetary GDP Money supply Index of debits to	3.28 2.18	1.57	5.17 2.31
current accounts	3.96	1.84	7.26
curren œy	1.96	1.32	2.58
Time and savings deposits	1.89	1.32	2.49
4 4 4	III.	UGANDA	
Monetary GDP Money supply Index of debitsto	4.34	1.15	4.97
current accounts	5.68	1.70	9.67
Currency	2.56	0.96	2.46
Time and savings deposits	2.20	2.02	4.46
	IV. T	ANGANYIKA	
Monetary GDP	3.42	1.56	5.34
Money supply	2.08	1.36	2.83
Index of debits to			
current accounts	3.96	2.37	9.36
Currency	2.03	1.31	2.67
Time and savings deposits	2.36	1.62	4.48

<sup>(7)</sup> H.W. Ord. op. cit. (fn.2); (7) Kenya and Uganda Statistical Abstracts and E.A. Statistical Department: op.cit.(fn.5)

17. Using the ratios of change of monetary parameters, indicated above, elasticity co-efficients were calculated by the following method.

# Method of Calculating Elasticities East Africa 1954/62 as an example.

```
g = annual average rate of growth of GDP
                                          " money supply
                                         " index of debits to curre
                                                      accounts.
                                          " time and savings deposit
  • E = elasticity co-efficient
then:-
(1) (1+g)^8 = 1.43; 8 \log(1+g) = \log(1.43);
 \log(1+g) = 1/8 \log(1.43); (1+g) = 1.045; g = .045
 (1+m)^8 *= 1.10; 8 \log(1+m) = \log(1.10);
     \log(1+m) = 1/8 \log(1/10); (1+m) = 1.012; m = .012
     E m/g = \frac{0.012}{0.45} = 0.27
(2) (1+i)^8 = 1.89; 8 \log(1+i) = \log(1.89);
 \log(1+i) = 1/8 \log(1.89) \cdot (1+i) = 1.083; i = .083
 • E i/g = \frac{.083}{.045} = \frac{1.84}{.045}
(3) (1+c)^8 = 1.20; 8 \log(1+c) = \log(1.20);
```

- $\log(1+c) = 1.20; 8 \log(1+c) = \log(1.20);$   $\log(1+c) = 1/8 \log(1.20); (1+c) = 1.023; c = .023$   $E c/m = \frac{.023}{.012} = 1.92$
- (4)  $(1+s)^8 = 1.56$ ;  $8 \log(1+s) = \log(1.56)$ ;  $\log(1+s) = 1/8 \log(1.56)$ ; (1+s) = 1.057; s = .057E  $s/g = \frac{0.057}{0.45} = 1.27$ 
  - 18. The results obtained by the above calculation are as shown below.

#### Elasticity fo-efficients.

#### I. EAST AFRICA.

	1946/54	1954/62	1946/62
Em/g	0.63	0.27	0.55
Ei/g	1.13	1.84	1.28
Ec/m	0.91	1.92	1.00
Es/g	0.55	1.27	0.70
	II. KENYA.		٠,
Em/g	0.64	0.12	0.50
Ei/g	1.18	1.36	1.21
Ec/m	" O.86	5.00	1.13
Es/g	0.52	0.60	0.54
11 11 11 11	III. UGANDA		
Em/g	0.73	-1.44	0,56
Ei/g	1.20	4.00	1.46
Ec/m	0.84	0.22*	0.93
Es/g	0.52	5.41	0.93
•	an element		
F ta.	IV TANGA	NYIKA.	
8			
Em/g	0.58	0.68	. 0.62
Ei/g	. 1.13	2.00	1.36
Ec/m	0.96	0.87	0.94
Es/g	0.81	1.09	0.89
			La Maria Control

<sup>\*</sup> a product of two negative figures.

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#### VI. METHOD OF ADJUSTING THE ELASTICITY CO-EFFICIENTS

L8. In projecting the 1970 monetary levels, two important assumptions were made: a) that the GDP grows at two probable rates, viz., 5.7% and 8% per annum (8); b) that two alternative rates of monetary growth are feasible: a low growth, assuming lower elasticy co-efficients for the projection; and a higher or attainable growth; assuming higher elasticity co-efficients for the projections.

#### Low Monetary Growth

- 19. For the calculation of the low growth pattern, the 1954/62 sub-period elasticity co-efficients were used with the following modi⇔ fications:
  - i. East Africa: no modifications
  - ii. Kenya: due to the exaggeratedly high Ec/m co-efficient, I adopted the East African one instead.
  - uganda: none of the calculated 1.54/62 elasticities were used in the projections. These elasticities as shown above were either exaggeratedly high, or like the Em/g, a negative figure. The Ec/m, although a positive figure, is in fact a product of two negative figures. Due to these anomalies, the East African elasticities for the same sub-period, are used in the projections of Uganda monetary growth.
  - iv. Tanganyika: for Tanganyika, the Ec/m elasticity co-difficient was thought to be abnormal and the East African one was adopted instead.

### High Pattern Monetary Growth:

20. As mentioned above, the high or attainable pattern of monetary growth was calculated assuming higher elasticity co-efficients. The calculated elasticities used as the basis for the higher growth projections are those of the entire 1946/62 period! These elasticities were adjusted so as to lower the co-efficient of index of debits to current accounts, representing the rate of monetary turnover, into the range of 1.0 to 1.1 and to raise correspondingly the co-efficients of money supply. In the case of the elasticity co-efficients of savings deposits, the 1954/62¢sub-period figures were the basis of the projections, raised by 10% (as detailed below) to represent continued spreading of the practice of savings in this form. The detailed method used was the following.

Em/g and Ei/g co-efficients

The idea of adjustment here was to raise Em/g and decrease Ei/g, so that:

Em/g x Ei/g = a constant

Thus, in 1946/62, Em/g for East Africa was .55, while Ei/g was 1.28.

.55 x 1.28 = .7040

Now assuming that the future Ei/g could be reduced by 15%, (8) criginally, GDP. was assumed to grow at 5% and 7% per annum; but an error was made in the calculation, such that on recalculation the rates of 5.7% and 8% per annum were obtained. In contrast to these, I have calculated the annual average rates of growth of GDP(1959/63) and these are: Kenya: 4.6% approx.; Uganda: 4% approx.; Tanganyika: 9% approx. With the exception of Tanganyika which is rather doubtful, it seems reasonable to assume the 5.7% and 8% in the projection of future GDP growth.

Ei/g = .85 x 128 = 1.488 or 1.490 approx.

Hence:

$$Em/g \times 1.09 = .7040$$
  
 $Em/g = .65$  approx.

The idea was to reduce the elasticity of the rate of turnover to somewhere in the range 1.0 to 1.1. Thus, the percentage by which Ei/g was reduced in a particular territory depended on the calculated 1946/62 magnitude of the Ei/g. For East Africa and Kenya, the Ei/g were reduced by 15%; by 30% in Uganda and by 20% in Tanganyika.

#### ii. Ec/m. co-efficient

The East African Ec/m co-efficient for 1946/62 was adopted for all the countries.

#### iii. Es/g co-efficient

The method used in estimating the higher Es/g co-efficient was as follows. For Tanganyika, the calculated 1954/62 Es/g value was raised by 10%. In the case of Kenya, the above modified Tanganyikan Es/g value was adopted. The abnormality of Uganda Es/g 1954/62 necessitated the adoption of the East African one for the same period, plus 10%. The East African occepficient was then obtained by weighting the territorial co-efficients by their respective 1963 GDP percentages, thus:

Henca:

E.A. 
$$Es/g = (1.09 \times .40) + (1.40 \times .27) + (1.20 \times .33)$$
  
=  $\frac{1.21}{}$ 

21. After all these adjustments, the final co-efficients used for the 1970 projections are tabulated as below.

# Low Monetary Growth High or attainable M. Growth. Elasticity of money relative to GDP (Em/g)

E.A.	EA	54-62;	.27	Adjusted	EA	46-62;	.65
Kenya		54-62;	.12	Adjusted	K	46-62;	.59
Uganda	EA	54-62;	.27	Adjusted	U	46-62;	.80
Tanganyika	T	54-62;	.68	Adjusted	T	46-62;	.78

# Elasticity of index of debits to current accounts relative

E.A.	EA	54-62;	1.84	Adjusted	EA	46-62;	1.00
Kenya		54-62;	1.36	Adjusted			
Uganda	EA	54-62;	1.84	Adjusted	U	46-62;	1.02
Tanganyska	T	54-62;	2.00	Adjusted	T	46-62;	1.08

#### Elasticity of currency relative to total money (Ec/m)

E.A.		EA	54-62	1.92		EA	46-62;	1.00
Kenya	4	EA	54-62	1.92		EA	46-62;	1.00
Uganda		EA	54-62	1.92	u - All	EA	46-62;	1.00
Tanganyika		EA	54-62	1.92		EA	46-62;	1.00

# Elasticity of time and savings deposits relative to GDP (Es/g)

E.A.		54-62;		weighted		c. of K,U,T.	1.21
Kenya		54-62;			T	54-62;	1.09
Uganda	EA	54-62;	1.27	Adjusted	EA	54-62;	1.40
Tanganyika	T	54-62;	1.09	Adjusted	T	54-62;	1.20

VII.— METHOD OF PROJECTING THE 1970 MONETARY LEVELS

22. Having obtained the desired co-strictents, I then calculated the 1970 monetary levels. Using the alternative 5.7% and 8% rates of growth, the 1963 GDP. monetary figures were used as the basis of the projection. Once the 1970 monetary GDP figure was obtained, I divided it by the 1962 monetary GDP in order to get the average rate of increase over the entire eight-year period. This roundabout method was necessary due to the fact that between 1962 and 1963, the GDP showed an increase of approximately 20% on the average. It was necessary then to include the potential effects of the abrupt 1963 rise on monetary needs. The method used in projection the 1970 monetary 1903 is the monetary needs. The method used in projecting the 1970 monetary levels is the following.

# Example: East Africa5-9% GDP growth, High Growth monetary pattern.

i.) 
$$GDP_{1970} = GDP_{1963} \cdot (1+r)^n, (1+r)^n = (1.057)^7 = 1.4774$$

$$= 476.6 \times 1.4774 = £704.1$$

$$GDP_{1970}/GDP_{1962} = \frac{704.1}{409.7} = 1.72$$

$$(1+g)^8 = 1.72; (1+g) = 1.070; g = .070$$

ii. 
$$E_{m/g} = .65$$
;  $m = .65g = .65 \times .070 = .0455$   
 $(1+m)^8 = (1.045)^8 = 1.4221$   
 $m_{1970} = £137.8 \times 1.4221 = £ 196$ 

iii. 
$$E_{i/g} = 1.09$$
;  $i = 1.09g = 1.09 \times .070 = .07630$   
 $(1+i)^8 = (1.076)^8 = 1.7969$   
 $i_{1970} = 351 \times 1.7969 = \underline{630}$ 

iv 
$$E_{c/m} = 1.00$$
;  $1.00m = 1.00 \times .045 = .045$   
 $(1+c)^8 = (1.045)^8 = 1.4221$   
 $(1970 = £54 \times 1.4221 = £76.8$ 

v. 
$$E_{s/g} = 1.21$$
;  $s = 1.21g = 1.21 \times .070 = .08470$   
 $(1 + s)^8 = (1.085)^8 = 1.9204$ .  
 $s_{1970} = £40.2 \times 1.9204 = £.77.2$ 

23. The results of the projections are shown in the appendix tables VI and VI(b) representing monetary levels at low and high growth respectively. By deducting the 1.62 figures from these of 1970, increments of monetary growths were obtained as shown in the appendix table VII under the rubrique of "gross available credit", in the sence that no provisions for reserve requirements have been deducted.

#### VIII. ALLOWANCE FOR RESERVE REQUIREMENTS.

#### A. Currency Board's or Central Bank's Reserves.

24. Given the fact that by June 30th, 1964, the sterling assets of the Board still represent 83.4% of her total liabilities (9), it is reasonagle to assume that by 1970, no additional sterling reserves would be required. In fact, a reduction of the present starling currency reserves could be a significant resource for development finance. These reserves have been well described as, "foregone imports imposed by the system on the peoples of the colonies (10)." If the present reserves were reduced to cover 50% of total liabilities, £25 million would immediately be available to the East African Governments for development projects. Thus if no additional sterling reserves would be required by 1970, then (using the projection for East Africa as awhole) the fiduciary issue—would have increased by £17-23 million with the low growth monetary pattern; and £23-31 million with high growth. Such sums would increase the present fiduciary issue by well over 100%.

#### B. Commercial Banks' Reserve Requirements

- 25. For speculative and simplicity reasons, I have supposed that the monetary authority be it an enlarged form of the present Board or a new central bank would require of commercial banks a reserve requirement(liquidity ratio) of 10% against both demand and savings deposits. This might seem an over-simplification, because, the American practice of differentiating between reserves against demand and savings deposits has become widely practiced in the newly independent states. However, (since it is a traditional English practice) admitting the 10% reserve requirement for both types of deposits, and deducting this from the "Gross Available Credit", on the appendix table VII, I obtain (for demand and savings deposits) the "Net Available Credit" figures as shown in the appendix table VIII.
- 26. The difference between not awailable credit in the form of demand deposits under the Low and the High growths is very large. For low growth, not available credit would be about £5 million, whereas for high growth it would be £32-43 (using East African figures). In either, monetary pattern, the not available credit in the form of time and savings deposits would be larger, in the range of £33-50 million.

#### IX. CONCLUSION

27. As a result of the projection, we have seen that the currency issue in the form of fiduciary allowance to the East African Governments could double the present fiduciary issue. Hence, given the formula for sharing the fiduciary issue amongst the member states - formula announced in the Board's report of 30th. June, 1962, - each member state would get a met addition of about £10 million worth of credit; which is well over 100% of the present share. Such a sum is indeed, appreciable for development finance.

- (9) The East African Currency Board: Annual Report; op. cit.
- (10). A. Hazlewood: Sterling Balances and Colonial Currency System; Economic Journal vol.62., December, 1952.

28. On the side of the commercial banks, there could be £40-55 million worth of credit with å low growth monetary pattern; nearly all of it associated with expanding time and savings deposits. On the other hand, there would be £65-90 million additional credit with a high growth monetary pattern, with only half in time and savings deposits (both cases using East African Figures). Such indeed would be a big boost of internal credit capacity than has even been in recent years. The commercial banks would extend credit either to the governments or to private concerns and individuals, and so doing, they would have played an essential role in the economic development of East Africa.

I am greatly indepted to Prof. P.G. Clark for his untiring assistance in the preparation of this paper. However, any error that arises thereof is, of course, my cwn.

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101	1 /	(0)	(a)	. / \	ENYA, UG				ANZIBAR.						t.	£
(0)	(1)	(2)	(3)		(5?		(7)	(8)	(8) 7.			(12)	1 '	, ,	(15)	16°7 £
Year	Currency in Cir- culation at 30th June.	Commer- cial Banks de mend de- posits/ end of year month	Total money - supply (1+2)	cial time	Banks Savings	Off-	f		Commer cial banks debit to cur- rent account 1950= 100	cost (an nual)	cap. formation at market prices	of do- mest- ic & inter- territ	of reexported	of total	(Caranteer	Vis- ible bala- nce of trade (annual; 14-15)
1946	21.0	35.3	54.3	3.7	1.8	6.8	12.3	66.6	44.0	79.3		27.4	4.6	32.0	32.7	- 0.7
1947	21.0	38.6	59.6	4.3	1.8	7.3	13.4	73.0	51.8	94.2		33.2	6.3	39.5	47.3	- 7.8
1948	20.0	44.3	64.3	4.3	1.9	8.3	14.5	78.8	64.2	118.7		43.5	9.7	53.2	70.7	- 17.5
949	24.0	44.7	68.7	3.9	1.9 .	9.4	15.2	83.9	83.8	148.9		57.3	20.7	78.0	104.7	- 26.7
1950	26.0	57.6	83.6	4.3	1.8	10.3	16.4	100.0	100.0	181.2	31.9	82.2	5.7	87.9	86.1	+ 1.8
1951	35.0	67.1	102.1	7.5	1.8	11.2	20.5	122.6	138.3	245.7	11.9	125.1	5.3	130.4	118.5	+ 11.9
1952	40.0	75.7	115.7	6.8	2.1	12.4	21.2	136.9	158.7	263.6	48.8	135.3	6.1	141.4	137.3	+ 4.1
1953	41.0	68.6	109.6	9.0	2.9	13.4	25.3	134.9	153.5	245.6	53.0	107.8	5.8	113.6	125.2	- 11.6
1954	45.0	80.6	125.6	7,5	4.0	14.2	25.7	151.3	185.8	286.2	75.4	114.7	5.3	120.0	137.8	- 17.8
955	54.0	85.8	137.8	6,6	5.9	15.5	28.0	165.8	248.0	320.1	90.2	124.4	4.9	129.3	171.3	- 42.0
956	54.0	70.9	124.9	9.6	7.3	14.9	31.8	156.7	254.1	338.9	90.3	134.7	8,5	148.2	152.8	- 4.6
1957	54.0	70.1	124.1	10.7	9.7	15.0	35.4	159,5	261.0	367.7	90.1	135.1	8.5	143.6	160.6	- 17.0
1958	52.0	68.8	120.8	11.7	12.1	14.4	38,2	159,0	266.0	359.6	82.3	139.9	8.0	147.9	148.4	- 0.5
1959	50.0	75.1	125.1	11.5	13.1	14.77	39.3	164.4	284.0	381.9	79.2	144.6	8.9		14770	+ 6,5
1960	52.0	67.7	119.7	8.3	11.3	12.2		151.5	509.0	412.3	83.4	159.3	8.8		162.0	+ 6.1
.961	53.0	77.1	130.1	10.3	13.4	11.6	35.3	165.4	314.0	413.1	72.8	143.7	11.3		165.6	- 10.6
962	54.0	83.8	137.8	13.0	16.0	11.2	40.2	178.0	351.0	409.7	75.2	147.2	12.5	156.5	167.4	- 7.8
1963										476.6						

Source See Bibliography

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Append	ix II						K	ENY	<u>A</u> .							,
(0)	(1)	(2)	(1 + 2)	(4)	(5)		(7) (4+5+6)		(9)	(10)	(11)	(12)	(13)	(14) (12+13)	(15)	$(16)^{\frac{\mathcal{E}'_{1}}{1}}$
Year	Currency in Cir- culation at 30th June	Commer- Icial Banks de- posits/ end of year month	Total Money Supply (1+2)	Commer- cial time deposits/ end of year month	Savin a.	off-	Near Mone (4+5+6)	moncy supply y+totl near money	to our	GDP.	gross cap. forma tion at marke price	of do- mostic & inter- terri-	of received	s total	import annual	Vissibl balance sof trad (annual 14-15)
1946	9.2	20.5	29.7	2.2	1.1	4.9	8.2	37.9	47.5	34.8		7.1	3.4+	10.5	17.0*	- 6.5
1947	9.2	24.6	33.8	2.5	1.1	5.3	8.9	42.7	55.2	41.3		9.6	5,2+	14.8	23.5*	- 8.7
1948	8.5	26.0	35.3	2.6	1.1	5.8	9.5	44.8	68.0	50.3		11.4	8.0+	19.4	34.0*	-14.6
1949	9.8	25,5	35,3	2.3	1.1	6.4	9.8	45.1	87.4	61.1		11.0	18.2	29.8	56.9	-27.7
1950	10.6	30.1	40.7	2.5	1.0	6.9	10.4	51.1	100.0	74.1	22.0	20.8	3.6	24.4	37.5	-13.1
1951	13.1	38.6	51.7	2.2	1.0	7.4	10.6	62.3	135.0	91.7	n.a	27.8	3.3	31.1	57.5	-26.4
1952	14.7	39.4	54.1	3.4	1.1	8.2	12.7	66.8	156.2	96.7	30.8	31.1	3.9	35.0	63.6	-28.6
1953	16.3	37.6	53,9	2.8	1.6	8.8	13.2	67.1	143.8	97.9	32.5	24.8	3.4	28.2	56.5	-28,3
1954	18.0	46.8	64.8	3.9	2,2	9.4	15,5	80.3	188.0	114.3	35.3	26.1	2.5	28,6	65,6	-37.0
1955	23.0	51.9	74.9	2.8	3,2	1.0.3	16.3	91.2	284.4	136.4	43.1	31.7	2.4	34.1	77.5	-43,4
1956	25.4	43.4	66.8	4.1	3.9	9,8	17.8	84.6	291.6	146.8	46.1	38.0	4.1	42.1	73.8	-31.7
1957	25.3	42,9	66.2	5,0	5,1	9,0	19,1	85.3	298.0	153.4	45.6	37.8	4.9	42.7	76.5	-33.8
1958	22.4	59.9	62.3	6.1	6.2	8.7	21.0	83.3	297.0	154.8	40.0	40.0	3,9	43.9	66.3	-22,4
1959	21.1	44,0	65.1	5.9	7.1	8 - 7	21.7	86.8	313.0	156.7	40.3	45.6	5.1	50.7	67.0	-16.3
1960	22.8.	40.5	63.1	4.4	5,5	7.0	16.9	80.0	332.0	175.3	41.4	49.0	5.0	54.0	77.1	-23.1
1961	23.3	41.2	64.5	4.1	7.1	6.5	17.7	82.2	328.0	176.8	31.9	43.2	6.4	49,6	75.9	-26.3
1962	23.7	45.0	68.7	5.3	8,8	6.3	20.4	89.1	345.0	180.0	33.4	45.7	7.2	52.9	76.8	-23.9
1963										195.3						

ndix (0)	(1)	(8)	(3).	(4)	(5)	(6)	UGANI (7)	(8)	(9)	(10)	(11)	(32)	(13)	(14)	(15)	(16)	€ M.
Year	Curre- ncy in Circu- lation at 30th June	Commer- Banks: demand: deposits cnd_of: year month	Money Supply	Commer- cial time deposits/ end of year month	Commercial Banks Savings doposits/ end of year month	Post Cff- ic s Sav- posite/ one of you mouth	Near Honey	money suppl	banks Vdebit to cur rent	GDP.	C.F. at marke	of domesti & inter territ	of re export (an-	total	of not	balance	е
1946	5.7	4.6	10.3	0.7	0.3	1.0	2.0	12.3	39.6	21.4	a maj	9.7		10.1	5.6	+ 4.5	
1947	5.5	5.7	11.2	0.7	0.3	1.0	2.0	13.2	47.4	24.6		11.4	0.4+	11.8	7.9	+ 3.9	1
1948	5.1	6.2 1	11.4	0.5	0.3	1.2	2.0	13.4	65.9	30.3		14.5	0.4+	14.9	11.4	+ 3.5	-
1949	6.9	1 7.7	14.6	0.5	0.3	1.4	1 2.2	16.8	80.1	42.8		23.4	0.4	23.8	14.0	+ 9.8	-
1950	7.8	11.7	19.5	0.6	0.3	1.6	2.5	22.0	100.0	54.3	9.9	33.0	0.2	33.2	16.8	+16.4	-
1951	11.9	10.6	22.5	3.7	0.3	1.8+	5.8	28.3	155,9	83.8	21.9	51.5	0.2	51.7	24.0	+27.7	1 -
.952	13.4	18.2	31.6	0.9	0.4	2.1*	3.4	35.0	178,2	88,3	18.0	52,9	0.5	53.4	26,6	+26.8	1.
.955	12.7	13.8	26.5	3.2	0.5	2.3	6.0	32.5	197.3	76.3	20.5	40.4	0.3	40,7	188.9	+11.8	-
1954	14,6	16.4	31.0	1.2	0.8	2.4*	4.4	35.4	224.9	92.8	:18.8	48.1	∩.5	48.6	128,4	+80.8	-
1955	17.2	15.0	32.2	1.1	1.2	2.60	4.9	37.1	263.4	101.9	23,5	49.8	0.4	50.2	38,0	+12.2	
1956	16.4	1 12.9 1	29.3	1.7	1.6	2.6	1 5.9	55.2	262.9	102.8	21.3	44.8	1.1	45.9	33.3	+12.6	. 1,000
1957	16.6	1 10.9 :	27.5	1.8	2.2	2.80	6.8	34.3	272.0	109.4	20.4	51.2	0.9	52.1	35.4	+16.7	
1958	15.4	12.2	27.6	1.8	3.2	2.85	7.8	35.4	294.0	106,4	19.6	51.7	0,9	52.6	34.3	+18.3	1-
959	14.6	11.8	26.4	2.2	2.9	3.2	8.3	34.7	330.0	108,1	17.1	47.5	1.1	48,4	32.0	+16.4	1-
1960	14.4	9.0	23.4	1.3	3.1	3.0	7.4	30.8	365.0	110.5	17.0	48,3	1.3	49.6	32.7	+16.9	1 -
1961	14.7	10.4	25.1	1.9	3,4	3.04	8.3	33.4	356.0	111.7	16.0	46.1	2.1	48,2	33.9	+14.3	-
962	14.0	11.8	25.8	2.2	3.9	2.8	8.9	34.7	383.0	106.4	15.4	44.7	7.1	47.8	33.8	+14.0	
1963										128.7							

fn.(1)
\* MB: The EACB does not publish separate data of Currency in circulation in each member territory. The above figures were derived by dividing E.A. Currency in proportion to G.D.P. of each territory.

\*fn (6)
Including Balances of Uganda Credit &
Savings Banks as at 31.12.1951/54 and
as at 30.6.1955/63. There was a change
of financial year from December to June.

See: See: fn(15)

App	endix IV						PANGAN	YIKA.,							1	£'1
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(3)	(9)	(10)	(11)			(14) (12+13	(15)	
Year	Currency in Circulation 20th Jun	a-cial Banks de	to	y cial time	Banks Savings deposits end of year mon	Orfic a Sevin p ord of	Near money (4+5+	money suppl:	bunks	fact r cost r(annua)	marke price (annua	S t mnit	of re	rtstora	ampor (annual	bal.nce
1946	6.1	8.2	14.5	0.8 Not	0.4 not	0.9	2.1	16.4	39.0	25.1		8.9		9.5	8.1	+ 1.2
1947	6.3	€.3	14.6	1.1 known	0.4 known	1, 0 uncom	2.5	17.1	48.1	28.5		11.1	0.4	11.5	13.9	* 2.4
1948	6.4		717.7	1.2 whether	0.5 whethe	1. 3 whether	3.0	20.7	54.1	inclu-		16.2	0.7	16.9	22,6	- 5.7
1949	7.3	11.5 ding.	18.8	1.1 Zanzma	ro. 5 Zensiba	rl.6 ingu-	3.2	22.0	81.3	45006	-	80.8	1.5	22.3	30.8	- 8.5
1,950	7.6			1.2 is	0.5 13	1,8 Zanzi		26.9	100.0	Zenzi		24.1	1.3	25.4	27.9	- 2.5
1951	10.0	17.9	27.9	1.6 inglud-	0.5 inglu		4,1	32.0	152.0	70.2		40.5	1.0	41.5	31.7	+ 9.8
1952	11.9	18.1	30.0		0.6	2,1	5.1	35.1	153.6	78.6		47.4	1.0	48.4	41.9	+ 6.5
1953	12.0	17.2)not	29.0	3.0	0.8	2.5	6.1	35.3	144.1	71.4		35.4	1,4	36,8	33.9	+ 2.9
1954	12.4	17.4 cermin	20.8	2,4	1.0	2.4	5.8	35.6	154.3	79.1	21.3	35,3	1.5	36.8	37.9	- 1.1
1.955	13.8	16.9 whether	r30.7	2,7	1.5	2.6	6.8	37.5	163.5	81.8	23,6	37,9	1.2	39.1	49.1	-10.0
1956	14.2	14.6 is incl	_		1.8	2.5	8.1	36.9	173.7	89.3	22.4	47.0	1.4	48.4	39.3	+ 9.1
1957	14.1	13.9	28.0	3,5	2,2	2,4	8.1	36.1	174.0	92.9	24,1	11.4	1.6	43.0	42,2	+ 0.8
1958	14.2	14.6	28.8	5.4	2.5	2,2	8.1	36.9	185.0	97.9	22.7	44.3	2.1	46.4	42.6	+ 3.8
1959	14.3	16.0	30.5	5.0	2.9	3.1	8.0	38.3	199.0	1.05, 2	21.8	47.9	1.9	48.8	42.6	+ 7.3
1960	14.8	14.8	29.6	2.2	2.5	1.6	6.5	35,9	328,0	114.4	25.0	57,2	1.7	58.9	47.0	+11.9
1961	15.0	21.4	36.4	3,7	2.6	1.5	7.8	44.2	100.0	1.13.5	24.9	50.8	2.0	52,8	50.3	+ 2.5
1962	16.3	34.2	40.5	4.8	3.0	1.6	9.4	49.9	365.0	123.3	26.8	53.6	2,2	55.8	51.5	+ 4.3
1963	-	6 - Will Mounth touther assertation to the College design	-			+				154,6	1		1			

jppend	dix V						ZANZIBA	R.								£'m.
(0)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(.:)	(9)	(10)	(11)	(12)	(13)	(14) (13+1)	(15)	
Year	Currency in Cir- lation at 30th June	Commer- cial Banks demand deposit end of year month	Money Supply (1+2)	Commercial time de- posits/ end of year mont	Banks Savings deposits hend of	off- ices Sav- ings depo sits	money	tota	Commer cial banks debit to cur rent accoun 1950=	T Mone tary GDP. at - factor cost	M.G. C.F. at marks price annua	Value of do mestic & inter termi- termi- texport (annua	Ե	Value of ts total ) ex- ports (12+1 annual	40 9	Visible balance of trades (annual, 14-15)
1946						Y.M.			49.0		. 7	1.7	0.4	2.1	2.0	+ 0.1
1047									17.7			1.1	0.3	1.4	2.0	- 0.6
1948									50.9			1.4	0.6	2.0	2.7	- 0.7
1949									60.1			2,1	0.6	2.7	5.0	- 0.3
1950							- Contract the same of the same		100.0			4.3	0,6	4.9	3.9	+ 1.0
1951					and the second s	,		1	138,2			5.5	0,8	6.1	5.3	+0068
1052									112,5			3.9	0.7	4.6	5,2	- 0,6
1953									153.0	_		7.2	0.7	7.9	5.9	+ 2.0
3054			-	-					126,5			5,2	0.8	6.0	5.9	+ 0,1
155	***************							Property of the sales of	1.52, 2			5,0	0.9	5.9	6,7	0.8
1056	description of the first sale				receipts only the banks of the color of the		and a subsection of the subsection of		129.4			4.9	1.9	6.8	6.4	+ 0,4
1957		2.4		0.4	0,2	७.४	1.4		161.6	12,0		X.7	1.1	5,0	6.8	- 0.7
1.758	representative and market depresentation and a second	2.1	ATTAC MANAGEMENT AND ADDRESS NATIONAL	0.4	0.8	0.7	1,5		114.0	40°E		3.9	1,1	5.0	5.2	- 0,2
120	Market de la company de la Com	5,3		0.4	0,2	0,7	1.5		118300	10.9		3.8	0.8	4.6	5.4	0.8
1060		3,6		0.4	0.2	0.6	1,2		134,0	12,1	on brightigues of radioanterings	4.8	0.8	5.6	5,2	+ 0,4
1961	After \$1 plan at a second	4.1		0.6	0.3	0,6	1.5		115.0	11.1		3,6	0.8	4,4	ប៊ីតូប៊ី	1.1
1962	-	2,8		0.7	0.3	0.5	1.5		118.0			3.2	n.a	n.a	5.3	n.a

Sources: see Bibliography

	11	1 9 6	2	11	1970	, 5.76 G	DP GROW	PH :		1970	less 1962	
I t e m	Kenya	Uganda	Tang'ka	East Africa		Uganda.	Tang'ka	East Africa		Uganda	Tang'ka	Eas! Africa
Monetary GDP	180.0	106.4	123.3	409.7	285,6	190,0	228,4	704.1	105.6	83,6	105.1	294.4
Currency	23.7	14.0	16.3	54.0	26.1	18.9	36.0	71.1	2.4	4.9	19.7	17.1
Monetary supply	68.7	25.8	40.5	137.8	72.6	30.2	61.7	160.2	3.9	r. 4	21.2	22.4
Near money	20.4	8.9	9.4	40.2	27.1	18.4	18.3	79.5	6.7	9.5	8.9	39.3
Index of Data to Current Account. (1950 = 100)	11 11 11 11 345.0	383.0	365.0	351.0	648.0	1077.0	1197.0	926.0	303.0	694.0	823.9	575.0
I t e m		196	2		1970, a	t 8% GDP	Growth			1970	less 1962	
Monetary GDP	180.0	106.4	123.3	409.7	332.2	221.2	265.7	819.1	152.2	114.8	1.42.4	409,4
Currency	23.7	14.0	16.3	54.0	27.6	2027	45.6	77.4	3.9	6.7	27.3	23,4
Money supply	11 68.7	25.8	40.5	137.8	74.4	31.7	68.3	166.7	5.7	5.9	27.8	28.9
Wear money	20.4	8.9	9.4	40.2	29.7	22.4	21.5	95.4	9.3	13,5	12.1	55.2
Index of Data to Current Account (1950 = 100)	345,0	383.0	365.0	351.0	789.0	1410.0	1569.0	1199.0	444.0	1027.0	1204.0	848.0

HIG	H GROWT	H								£.	million.	
	11	1962			1970,	5.7% GDP	GROWTH		1 1	970 Le	ss 1962	
Item	Kenya	Uganda	Tang'ka	East Africa	Kenya	Uganda	Tang'ka	East Africa	Kenya	Uganda	Tang'ka	East Africa
Monetary GDP	180.0	106.4	123.3	409.7	285.6	190.1	228.4	704.1:	105,6	00.7	105.1	294.4
Currency	23.7	14.0	16.3	54.0	31.2	22.3	26.4	76.8	11 11 11 7.5	8.3	10.1	22.8
Money supply	68.7	25,8	40.5	137.8	90.5	41.1	65.5	196.0	21,8	15.3	25,0	58,2
Near Money	20.4	8.9	9.4	40.2	33.8	19.8	19.6	77.2	13.4	10.9	10.2	37.0
Index of debit to Cur- rent Account (1950=100)	345.0	383.0	365.0	351.0	558.0	688.0	706.0	630.0	213.0	305.0	341.0	279.0
I t e m		1 9 6 2			1970,	8% GDP	GROWTH		19	70 Les	s 1962	
Monetary GDP	180.0	106.4	123.3	409.7	332,2	221,2	265.7	819.1	152.2	114.8	142.4	409.4
Currency	23.7	14.0	16.3	54.0	34.2	25,3	29.7	84.8	10.5	11.3	13.4	30.8
Money supply	68.7	25.8	40.5	137.8	99.2	46.7	73.9	216.4	30.5	20.9	33,4	78.6
Near Money	1 20.4	8.9	9,4	40.2	39.8	24.3	23.3	92.0	19.4	15.4	13.9	51.8
Index of debit to Cur- rent account (1950=10	345.0	383.0	365.0	357.0	648.0	809.0	829.0	742.0	303.0	426.0	464.0	391.0

## Eppendix VII

#### GROSS AVAILABLE CREDIT.

# 1970,5.7% GDP GROWTH, LOW GROWTH MONETARY PATTERN.

				a mirrich	
Item	KENYA	UGAN DA	TANGANYIKA	EAST AFRICA	
Currency	2.4	4.9	19.7	17.1	
Demand Deposits	1.5	- 0.5	1.5	5.3	
Savings Deposits	6.7	9.5	8.9	39.3	

1970, 8% GDP	GROWTH, LOW	GROWTH MOI	NETARY PATTERN	£' million.
Currency	3.9	6.7	27.3	23.4
Demand Deposits	1.8	- 0.8	0.5	5.5
Savings Deposits	9.3	13.5	12.1	55.2

# 1970, 5.7% GDP GROWTH, HIGH GROWTH MONETARY PATTERN.

	L			£' million.
Currency	7.5	8.3	10.1	22.8
Demand Deposits	14.3	7.0	14.9	35.4
Savings Deposits	13.4	10.9	10.2	37.0

# 1970, 8%, GDP GROWTH, HIGH GROWTH MONETARY PATTERN.

				£' million	
Currency	10.5	11.3	13.4	30.8	
Demand Deposits	20.0	9.6	20.0	47.8	· .
Savings Deposts	19.4	15.4	13.9	51.8	

#### Appendix VIII

#### NET AVAILABLE CREDIT.

## 1970, 5.7% GDP GROWTH, LOW GROWTH MONETARY PATTERN.

				£' million
Item	KENYA	UGANDA	TANGANYIKA	EAST AFRICA
Currency	2.4	4.9	19.7	17.1
Demand Deposits	1.3	- 0.5	1.3	4.8
Savings Deposits	6.0	8.5	8.0	35.4

#### 1970, 8% GDP GROWTH, LOW GROWTH MONETARY PATTERN.

			£' million
3.9	6.7	27.3	23.4
1.6	- 0.8	0.4	4.9
8.4	12.1	10.9	49.7
	1.6	1.6 - 0.8	1.6 - 0.8 0.4

# 1970,5.7% GDP GROWTH, HIGH GROWTH MONETARY PATTERN.

				£' million
Currency	7.5	8.3	10.1	22.8
Demand Deposits	12.9	6.3	13.4	31.9
Savings Deposits	12.1	9.8	9.2	33.3

# 1970, 8% GDP GROWTH, HIGH GROWTH MONETARY PATTERN.

		-	£' million		
Currency	10.5	11.3	13.4	30.8	
Demand Deposits	18.0	8.6	18.0	43.0	
Savings Dep@sits	17.5	13.9	12.5	46.6	