A MONETARY HISTORY OF GHANA

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(ABSTRACT)

The main purpose of the study was to trace the monetary history of Ghana, providing an overall view of how the various monetary regimes in Ghana's history affected the method(s) adopted to finance government budget deficits. The impact of the budget deficits on the money supply process and prices was also analyzed.

The study begins with an overview of the various definitions of deficit financing. A brief account of the monetary developments leading to the establishment of the West Africa Currency Board in 1912 was given. The study then goes on to show how currency was acquired during the existence of the Currency Board (that is, 1912-57) This led to a discussion of how the Ghana Government financed its budget deficits during this period. The role of the Bank of Ghana in the monetary development after independence was discussed. The persistent Government budget deficits after independence and its effect on the money supply and prices was also discussed. It was found that there is a close connection between changes in the stock of money and changes in prices, and that in Ghana inflation has essentially been a monetary phenomenon.

The study concludes with the results of its findings and, their implications for public policy and, topics for further research. A guide to the history of Ghana's currency is provided in appendix A. Appendix B is notes on data used in the study.

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CHAPTER ONE

INTRODUCTION

Economic growth in Ghana is currently threatened by inflation and high interest rates stemming from the expansionary monetary and fiscal policies over the years, and increased demand for credit by the Government and non-government sectors. The World bank country study of Ghana and other notable scholars of the Ghanaian economy such as, Tony Killick, Naseem and Norris, seem to suggest that the government fiscal and monetary policies which are perpetuating an imbalance between government expenditures and revenues may be the major factor for this situation.

Government use of the banking system to finance its growing imbalance of expenditure over revenue has been a recent phenomenon beginning from 1959 when the government of Nkrumah launched its second Five-Year Development Plan for the period July 1, 1964, and changed from a Monetary Standard, similar to the Gold Standard, in which the money supply was backed primarily by Sterling assets. There is a growing concern about the unfavourable effects on the productive capital stock, prices and employment of persistent and large government deficits, which inevitably lead to increases in government debt as a ratio of gross national product and to total private wealth.

This study traces the monetary history of Ghana just before the arrival of colonial rule, and analyzes the extent and impact of monetary expansion in Ghana from 1912, the year of the establishment of the West African Currency Board (WACB) to 1966, when the first Republic gave way to a military government. The main purpose of this study is to examine the economic effect of the various monetary regimes on how government finances its budget deficits, and also how the deficit financing affects the money stock and prices.

In trying to interprete movements in the money stock over time, it is essential to recall that the movements are the result of the interaction of many forces. These include the behavior of the nonbank public acting with respect to its desire to hold money and other financial assets, as well as the behavior of the Central bank in supplying bank reserves and setting discount rates, as well as ceiling rates that banks may pay on time deposits and interest rates, the behavior of the Commercial banks in using the reserves supplied to them by the Bank of Ghana, and the behavior of all financial institutions in bidding for the savings of the public. Indeed, Atta has observed that the Bank of Ghana determines the nominal posted rate in Ghana. He wrote "The determination of interest rates in the modern sector suggest an exogenous rate of interest. Prior to 1960, the Bank of Ghana did not fix the discount rate. The Ghanaian money market was tied to the London money market during this time." He went on to say that "since 1960, the rates of interest in Ghana have been institutionally determined. The bank of Ghana fixes the bank rate and requires the Commercial banks to adjust both their lending and deposit rates in accordance with a given range around the bank rate."[1].
Changes in money holdings over any period must therefore represent the

supply behavior of the Bank of Ghana, acting in concert with the demand factors existing in the private sector of the Ghanaian economy.

A meaningful interpretation of changes in the growth rate of the money stock must take into account the factors underlying the public's demand for money and its ability to substitute between money balances and other financial assets. It is particularly important to analyze properly what is happening to growth rates of other financial assets that are likely to be close substitutes. The Ghanaian has a limited scope in the choice of financial assets. This is reflected in the use of cash to meet most obligations. For example, in 1980, coins and currency accounted for over 58 per cent of the money supply.[2] In fact, Hogendorn and Gemery have observed that the West African Currency Board held a reserve in sterling balances, mostly invested in the United Kingdom. From 1926 it was always above 100 per cent, with the figure usually on the order of 110 per cent. Much of the reserve was in the United Kingdom national and Local government securities.[3] The West African Currency Board was, in fact, mandated to invest its funds, either in short-dated securities or in British government loans.[4]

The main purpose of this study is to provide an overall view of how the various monetary regimes in Ghana's history affected the method(s) adopted by the Ghanaian government in financing its budget deficits. In order to bring out the salient features of the impact of the government deficit financing on the inflationary process, the study is broken down into three main periods:

1. The period before 1912, when the then Gold Coast local currencies like cowries, manilla and gold dust, based on trust, were gradually replaced by an imported currency, British silver and gold coins. The barter trade between the Gold Coast and the Europeans came close to being eradicated.

2. The period between 1912 and 1957, when the West African Currency Board was established to oversee the issue and redemption of the West African currency. This period was marked by the monetary standard similar to the Gold Standard, in which the money supply was backed primarily by sterling assets. Barter trade was reduced to the barest minimum as a distinct and acceptable currency was established,

3. The period 1957-66, when Ghana gained its independence to the fall of the First Republic. The Bank of Ghana was established during this period. The period marked the first planned attempt at economic development by a Government in Ghana. The government moved away from a monetary standard, that is, the beginning of a system of holding the debt of its own (Ghana government) as opposed to those of foreign governments, as its currency backing.

The first task of this study is to choose an appropriate definition for the concept of deficit financing, since there are several different concepts and definitions. Not only are there considerable differences in specifications given to the term in various countries, different writers use different measures of deficit financing in their analysis.

Once a definition of deficit financing is established the next task is to estimate it. The monetary history of Ghana will then be outlined, providing an overall view of how the various monetary regimes in Ghana's history affected the way the government finances its deficit. The monetary history covers the three major periods identified above. Each period will be discussed in a different chapter.

The final task is to conclude the study with implications for government policy, and suggestions for further studies.

CHAPTER TWO

CONCEPTS OF DEFICIT FINANCING

In this section, the concept of deficit financing is defined. It is necessary to define this concept since there are considerable differences in the connotations given to the term in various countries. Indeed, different writers from the same country use different measures of deficit financing in their analyses. Deficit financing has often been defined to mean budget deficit. This, however, becomes a vague definition of the term. For example, Ahmad Naseem has observed that, whereas in the United Kingdom (U.K.) the term budget deficit denotes the excess of current expenditure over current revenue, that is, deficit on current account only, in the United States it generally refers to the gap between total budgetary expenditure (both on current and capital accounts). By defining deficit financing as budget deficit, we deprive ourselves of the ability to analyse some of the economic effects of government spending. It does not, for example, indicate how the deficit was created, that is, increasing government expenditure with taxation unable to match it or decreased tax revenues with government expenditure remaining the same, etc.[5]

This definition also does not indicate the method or methods used in financing the excess government expenditure. Because we are interested in the effect of deficit financing on monetary aggregates, we are therefore, concerned with how the deficit was brought about and how it was financed. The size of the deficit alone does not tell us if the government deficit has an expansionary or contractionary effect on the money supply.

The definition adopted in this study should take into account the method of financing the deficit. The government can finance the deficit in one or more of the following ways; a) increase taxes, b) reduce government expenditures, c) cause the central bank to print more money, d) sell government bonds and securities to financial institutions (commercial banks, savings banks, trust funds, pensions funds, local bodies, business firms etc.), and individuals, e) draw down government cash balances. f) borrowing from abroad - foreign governments, IMF and other International agencies

In the next section we elaboration on how each of these methods affect the money supply.

FINANCING GOVERNMENT SPENDING

In this section we analyze the effect of each method of financing the budget on the monetary base, holding all other things constant. Note that a change in the monetary base (high powered money) directly affects the money supply equation. High powered money is currency plus commercial banks reserves.

Consider a deficit caused by increased government expenditures, the government can raise taxes to finance the budget deficit. When tax revenues are increased the deficit maybe eliminated. With no deficit, tax revenues are used to make expenditures, so, the money supply remains the same.

The government could also reduce its expenditures so that tax revenues are enough to pay for government expenditures. When the government reduces its expenditures enough so that tax revenues are enough to pay for expenditures, there will be no deficit. The money supply remains the same. Alternatively, the government can finance the deficit by having the Central bank to sell its securities and bonds to the public. The public in turn pay for these securities by writing checks to the Central bank. The public's deposits in the Banking system decline by the amount of the sale, leading to an equivalent decline of bank reserves at the Central bank. The government writes checks to its creditors in the same amount. The creditors in turn deposit these checks in the bank, leading to an increase in deposits and hence reserves. The net effect of these transaction is that the items in the monetary base are unaffected. Thus financing of government spending by issuing debts has no effect on the monetary base. It should be noted, however, that in Ghana there is no scope for the government selling securities and bonds to the public. Only institutions, banks, and state corporations can buy them. There have been attempts by the government in recent months to establish a stock market in Ghana.

The fourth method available to the government for financing its deficit is by causing the Central bank to create more "paper money". In Ghana there is no Treasury, as known in the United States. which has the legal right to issue currency with which it can pay for government spending. The Bank of Ghana issues currency through its Treasury Department. Paper money is created when the government borrows from the Bank of Ghana to finance its deficit. The new money in this case is backed by government securities. This method of financing a budget deficit therefore leads to an expansion of the monetary base.

A fifth method will be for the government to draw down on its cash balances when these balances are held at the Central bank. This method tends to cause an expansion in the money supply, as those receiving payment for sale of goods and services to the government deposit them in commercial banks.

The first three methods of financing the deficit, here referred to as group I, are generally excluded from the measurement of money creating effects of fiscal operations. Naseem have shown that in Ghana as well as the U.S., for purposes of measuring budget deficit government borrowing from the public is excluded from current revenue.

The net money creating effect of the last two methods, decline in government cash balances and borrowing from the central bank, defined as group II, are equivalent in the sense that they both increase the quantity of money in the hands of the public. Government borrowing from the Commercial banks comes between the two groups discussed above, in that it may or may not lead to an increase in the monetary base, depending on among other things, whether or not the commercial banks have excess primary reserves.[6]

Since it is the task of this study to focus attention on those measures of financing the Ghanaian government budget deficit which are potentially expansionary and thus make it easier to measure and examine the inflationary impact of government deficit on the economy, we restrict ourselves to that definition of deficit financing that is relevant to the study. Two such definitions emerge from the above analysis. One it may be defined as the net borrowing from the Central bank, plus any decline in the government cash balances. Two, net borrowing of the government from the Central bank, and the Commercial banks, plus any decline in the government cash balances. By these definitions, we are able to bring out the full effect of the budget deficit to bear, either directly or indirectly on the money supply process in the economy.

This brings us to the question of which of these definitions of deficit financing is relevant to the study. The choice will ultimately depend on, for analytical and measurement purposes, whether or not government borrowing from the Commercial banks has an expansionary effect on the money stock. It should be noted that whereas government net borrowing from the Central bank enlarges the fiduciary issue and therefore tends to increase the stock of money in the economy, borrowing from the Commercial banks may not. Government borrowing from the Central bank to finance purchases of goods and services from the rest of the economy provides the Commercial banks with excess 'primary' reserves, that is, cash balances and deposits with the Central bank, and thereby tends to increase their potential capacity for making additional loans on a multiple basis.[7] The expansionary effect of government borrowing from the Commercial banks would depend on a variety of factors, including, according to Naseem, whether the Commercial banks have excess 'primary' reserves, the mechanism of government borrowing, and the extent, if any, to which the monetary authorities are willing to let these effects take place.[8]

The conclusion to be drawn from the above analysis is that, government borrowing from the Commercial banks would depend on the circumstances under which this transaction took place. For the purposes, of monetary analysis, therefore the choice between the two definitions of deficit financing should be made in the light of the statistical data on the response of the banking system to government borrowing operations.

A quick trip through the statistics on the monetary conditions in Ghana since 1960, when the government treasury bills were introduced for the first time, shows that the commercial banks extended an increasing amount of credit to the non-government sector as and when the demand for credit worth loans by this sector increased. Also the government borrowing from the commercial banks reached an unprecedented level. A large part of this borrowing took the form of treasury bills especially between 1960-65, which augmented the commercial banks' reserves, which has a potential for creating expansion in the money supply. This was due to the fact that the treasury bills were as good as money or very liquid. They could be converted into cash at the Bank of Ghana which was required to support them.

The above analysis and subsequent sections will show that in Ghana, government borrowing from the Commercial banks was essentially expansionally. It can be concluded that the definition relevant to the study is that deficit financing is the net borrowing from the banking system (Commercial banks and the Central bank).[9]

ESTIMATES OF DEFICIT FINANCING

Tables IA and IB present a consolidated picture of Central government deficit financing between 1900 and 1965. Two tables were used to illustrate the government budget deficit and finance operations for the period, 1913-66 (broken down into 1900-60 and 1960-65), because the government used different methods in financing its budget deficits over the period. These were dictated by the monetary regimes at the time. It will be seen that the government used a variety of expedients to finance its budget deficits. These included external borrowing and reduction of overseas investments for the period 1900-60. For 1960-65 the government resorted to borrowing from the Cocoa Marketing Board (CMB). The government borrowed ₵39.3 million in 1959/60 fiscal year from the CMB. The government also sold government stocks and bonds, and treasury bills.[10]

According to Cox-George, (1973) some 70 percent of the deficit of 1960/61 was financed from external sources, largely by selling external assets of the government. The rest came from internal sources which included the issue of government stocks and bonds, a loan from the CMB, advances from the Banking System, and "compulsory savings", that is, 10 percent of the revenue from cocoa sold to the CMB by farmers were paid for with government bonds. The form of financing adopted in subsequent years remained the same except that the government did not borrow from the CMB as the CMB became a net borrower, itself.[11]

The impact which these methods of borrowing had on the country's banking system, and by implication on the economy in general can be seen by reference to Table IB. It shows that credit extended to the private sector expanded dramatically after independence, and also that credit extended by the banking system to the government expanded at an even greater rate. The accumulation of overseas assets of the banking system had become negative by 1961.

It can be seen from Table II that the rate of deficit financing increased persistently from £G3.8 million in 1960 to £G14.2 million in 1963. It fell significantly in 1964 to £G5.1 million, but rose again in 1965 to an all time peak of £G33 million. The decline in the deficit financing in 1964 is explained by the fact that between September 1963 and June 1964, the government took over the foreign assets of certain statutory bodies and public institutions and sold them to the Bank of Ghana, who in turn paid the equivalent amount into the account of the government. As compensation for the foreign assets surrendered by the public institutions, the government gave them government debt.[12]

TABLE IA

GOVERNMENT REVENUE AND EXPENDITURE; SURPLUSES AND DEFICITS ALLOCATION OF SURPLUSES AND FINANCING OF DEFICITS, 1900-60 (THOUSANDS OF POUND STERLING)

YEAR	REVENUE	EXPENDI-TURE	SURPLUS (+) DEFICIT (-)	FOREIGN LOANS	DOM-ESTIC LOANS	APPRECI ATION + DEPRECI ATION- OF INVE STMENTS	CONTRI BUTION TO SI-NKING FUNDS	REPAY MENTS OF LOANS	CHANGES IN SUR-PLUS BALANCES
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1900	382	903	-521	202	-	-	-	-	-319
1901	495	849	-354	197	-	-	-	-	-157
1902	510	1,179	-669	915	-	-	-	-25	-221
1903	511	923	-412	56	-	-	-	-	-356
1904	533	538	-5	-	-	-	-	-	-5
1905	454	508	-54	-	-	-	-5	-20	-79
1906	511	544	-33	-	-	-	-11	-27	-71
1907	537	531	6	-	-	-	-11	-15	-20
1908	599	656	-57	-	-	-	-11	-20	-88
1909	594	906	-312	965	-	-	-11	-25	617
1910	755	941	-186	-	-	-	-11	-149	-346
1911	815	895	-80	-	-	-	-11	-25	-116
1912	899	975	-76	-	-	-	-16	-20	112
1913	942	1,193	-251	-	-	-	-21	-20	-292
1914	984	1,464	-480	994	-	-	-21	-20	473
1915	1,011	1,394	-383	-	-	-	-21	-20	-424
1916	1,378	1,217	+161	-	-	-	-21	-20	120
1917	1,128	1,145	-17	-	-	-	-27	-15	-59
1918	845	1,086	-241	-	-	-	-32	-20	-293
1919	1,935	1,471	+464	-	-	-	-32	-25	407
1920[1]	2,985	3,189	-204	3,900	-	-	-32	-20	3,644
1921	2,220	5,704	-3,484	-	-	-	-32	-20	-3,536
1922	2,462	3,493	-1,031	-	-	-	-32	-20	-1,083
1923	2,828	2,696	+132	-	-	-	-57	-20	55
1924	2,896	4,847	-1,951	-	-	-	-57	-20	-2,028
1925	3,005	4,485	-1,480	4,350	-	-	-57	-96	2,717
1926	3,200	4,642	-1,442	-	-	-	-134	-	-1,576
1927	3,987	4,472	-485	-	-	-	-54	-	-539
1928	3,771[2]	4,286	-515	-	-	-	-49	-	-564
1929	3,389	3,789	-400	-	-	-	-52	-	-452
1930	2,663	3,482	-819	-	-	-	-28	-	-847
1931	2,278	2,622	-344	1,130	-	-	-9	-	777
1932	2,654	2,375	+279	-	-	-	-24	-	255
1933	2,654	2,168	+486	-	-	-	-33	-	453
1934	2,760	2,204	+556	-	-	-	-38	-	518

TABLE IA (CONTD)

GOVERNMENT REVENUE AND EXPENDITURE; SURPLUSES AND DEFICITS ALLOCATION OF SURPLUSES AND FINANCING OF DEFICITS, 1900-60 THOUSANDS OF POUND STERLING

YEAR	REVENUE	EXPENDITURE	SURPLUS (+) DEFICIT (-)	FOREIGN LOANS	DOMESTIC LOANS	APPRECIATION + DEPRECIATION - OF INVESTMENTS	CONTRIBUTION TO SINKING FUNDS	REPAYMENTS OF LOANS	CHANGES IN SURPLUS BALANCES
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1935	3,231	2,401	+830	-	-	-	-498	-	332
1936	3,733	2,845	+888	-	-	-	-841	-	47
1937	3,748	3,194	+554	-	-	-21	-320	-	213
1938	3,717	3,340	+377	-	-	-125	-145	-	107
1939	3,704	3,581	+123	-	-	-73	-42	-	8
1940	3,844	3,859[3]	-15	-	-	-4	-39	-	-58
1941	4,118	3,547[4]	+571	-	-	-27	-39	-	505
1942	4,135	4,093	+42	-	-	+34	-39	-	37
1943	4,286	4,504	-218	-	-	+8	-39	-	-249
1944	5,418	4,452	+966	-	-	+10	-83	-	893
1945	7,145	5,957	+1,188	-	-	+28	-83	-	1,131
1946	7,535	6,546	+989	-	-	+27	-84	-	932
1947	10,209	9,902	+307	-	-	-71	-1,084	-	-848
1948	11,601	11,404	+197	-	-	+58	-84	-	171
1949	18,058	14,059	+3,999	-	-	-222	-84	-	3,693
1950	20,840	17,750	+3,090	-	600	+8	-84	-	3,614
1951	38,929[2]	23,076	+15,853	-	1,700	-541	-1,584	-89	15,339
1952	42,965[5]	38,444	+4,521	-	3,520	+367	-84	-159	8,165
1953	48,428	48,052	+376	-	4,515	+186	-1,409	-384	3,284
1954	80,587	46,681	+33,906	-	4,381	-2,164	-97	-853	35,173
1955[1]	64,099	70,314	-6,215	-	6,500	-4,942	-248	-600	-5,505
1956	49,502	59,171	-9,669	151	2,970	+646	-447	-550	-6,899
1957	59,922	57,731	+2,191	-	-	+1,470	-447	-3,874	-660
1958	66,719	75,742	-9,023	4,030	-	+1,339	-405	-594	-4,653
1959	70,231	87,118	-16,887	-	22,281	-1,724	-291	-597	2,782
1960	83,413	111,834	-28,421	7,094	5,963	+218	-434	-1,304	-16,884

Source: Kay, op. cit., p.125.

1 Covers 15 months
2 Includes 305,000 transferred from reserves.
3 Includes 500,000 interest-free loan granted to the Imperial Government.
4 Includes 300,000 interest-free loan granted to the Imperial Government.
5 Relates to advances from the Joint Consolidated Fund London.

TABLE IB

CENTRAL GOVRERNMENT FINANCING OF BUDGET GAP (1957-1965)
(MILLIONS OF CEDIS)

ITEMS	1957/58	1958/59	1959/60	1960/61	1961/62	1962/63	1963/64	1964/65	1965/66
TOTAL FINANCIAL GAP	28.1	32.9	65.5	86.8	160.8	143.3	118.7	160.2	134.6
EXTERNAL BORROWING	-	9.7	-	17.0	-	2.0	2.1	8.2	3.0
INTERNAL BORROWING	-	-	53.5	14.3	99.8	128.7	84.8	129.9	121.2
GROUP I									
BORROWING FROM CMB	-	-	39.3	-	-	-	-	-	-
TREASURY BILLS	-	-	14.2	4.7	68.1	-	23.1	37.1	37.3
GOVT STOCKS AND BONDS	-	-	-	9.6	-	70.8	58.0	67.8	83.2
GROUP II									
DECREASES IN INVESTMENT	21.9	-	9.2	42.7	56.7	-	24.8	20.9	-
DECREASES IN CASH BALANCE	-	16.6	-	7.0	-	-	-	-	2.3
WAYS AND MEANS ADVANCES	-	-	-	-	19.2	36.0	-	12.0	-
UNSPECIFIED	6.2	6.6	6.2	5.8	4.3	12.6	7.7	2.0	8.1

1. Covers 12 months' period.
2. Covers separately a 12 month and a 15 month period.
3. Unspecified means other than sources of financing such as increases in liabilities, loan redemption appreciation of bonds, National Day Bonds, and borrowing from the Railway and Harbor Administration.

SOURCE: J. GRAHAM-SMITH, GHANA'S ECONOMIC OBJECTIVES AND PERFORMANCE: 1957-66, p.32.

TABLE 11

CAPITAL EXPENDITURE, BUDGET DEFICIT AND DEFICIT FINANCING

(1958 - 1965)

	1958	1959	1960	1961	1962	1963	1964	1965	AVERAGE 1960-65
CAPITAL EXPENDITURE	14.9	22.1	34.4	43.0	50.3	52.4	54.1	71.0	51
BUDGET DEFICIT	-6.1	4.4	24.8	37.8	45.8	47.4	51.1	39.0	41
DEFICIT FINANCING	-	-	3.8	8.5	13.9	14.2	5.1	33.0	13
DEFICIT FINANCING AS % OF BUDGET DEFICIT	-	-	15.0	22.0	30.0	30.0	10.0	85.0	32

During the period 1958-65, the fiscal year in Ghana was changed twice; in 1962 from July/June to October/September and in 1965 from October/September to January/December. The figures for calendar years have been derived from the available data for fiscal by using half-yearly or quarterly averages. After the coup in February 1966, the fiscal year was once again changed to July/June.

SOURCE: Ahmad Naseem, op. cit., p. 43.

The average annual rate of deficit financing during 1960-65 was about £G13 million, of which half was financed by the Bank of Ghana and the other half by the commercial banks. Note, however, that whereas the commercial banks' contribution was fairly distributed in the period under discussion, that of the Bank of Ghana was concentrated between 1963 and 1965. Consequently, the relative importance of the commercial banks and the Bank of Ghana as sources of deficit financing varied significantly from year to year. The discussion of deficit financing will not be complete without relating it to the budget deficit. We do this in the next section.[13]

DEFICIT FINANCING AND BUDGET DEFICITS

In this section we relate deficit financing, budget deficit and the level of government capital expenditure, for the period 1958 to 1965. Since independence capital expenditure has constituted a significant and continuously growing portion of all public expenditure. According to Cox-George, (1973) the level of capital expenditure component which stood at 50 percent of recurring expenditure in 1957 has risen to 66.6 percent by 1960.[14]

It is evident from table II that the size of budget deficit has been closely related to the rate of government capital expenditure. The continuous deterioration in the budgetary position from a surplus of £G6.1 million in 1958 to a record deficit of £G51.1 million in 1964 resulted largely from a persistent increase in government capital expenditure which rose from £G14.9 million to £G54.1 million over the same period. One important component of this capital expenditure (capital account) was the Development budget for development projects. Despite an increase in government capital expenditure by £G16.9 million, the size of the budget deficit in 1965 was considerably smaller than in 1964. This is explained by the fact that between the two years the government was able to increase its current revenue by no less than 39 percent through increased taxation. Since this spectacular increase in revenue was not accompanied by an increase in current expenditure, the level of current revenue surplus available for financing capital expenditure increased from £G3 million in 1964 to £G32 million in 1965.[15]

Almost one-third of the total budget deficit during 1960-65 was financed through money creation. However, as can be seen from Table II, the relative importance of deficit financing varied from year to year. For example, in 1960 only 15 percent of the budget deficit was financed through money creation. During 1962-63 the relative significance of deficit financing rose close to 33 percent. This position changed significantly the following year, when, for the first time, the ratio of deficit financing to the budget deficit fell to 10 percent. In sharp contrast, deficit financing rose to an alarming proportion in 1965, when more than four-fifths of the budgetary gap was financed by money creation.

The explanation for the wide fluctuations in the relative importance of deficit financing is to be found in the nature and size of the other sources available to the government in financing its expenditures. Up until 1960 the growing budget deficit was covered mostly by drawing down on external reserves and/or borrowing from external sources. The gap between revenue and expenditure was also financed, in part, by receipts from the "voluntary contribution", a form of taxation, of cocoa farmers to national development, and loans from the Cocoa Marketing Board. This means that, up till 1960, the need for large scale borrowing from the banking system has not arisen.

Having used up most of its external resources, and faced with an even bigger budgetary deficit in 1962, the government resulted to sale of government securities to the public. It also sought loans from abroad. At the same time, the government took a number of measures, an analysis of which is beyond the scope of this study, to increase revenue from taxation. Though during 1962-63 there was a significant increase in government receipts both from taxation and other non-inflationary sources, it was not enough to finance expenditures. An increase in government borrowing from the banking system therefore took place.

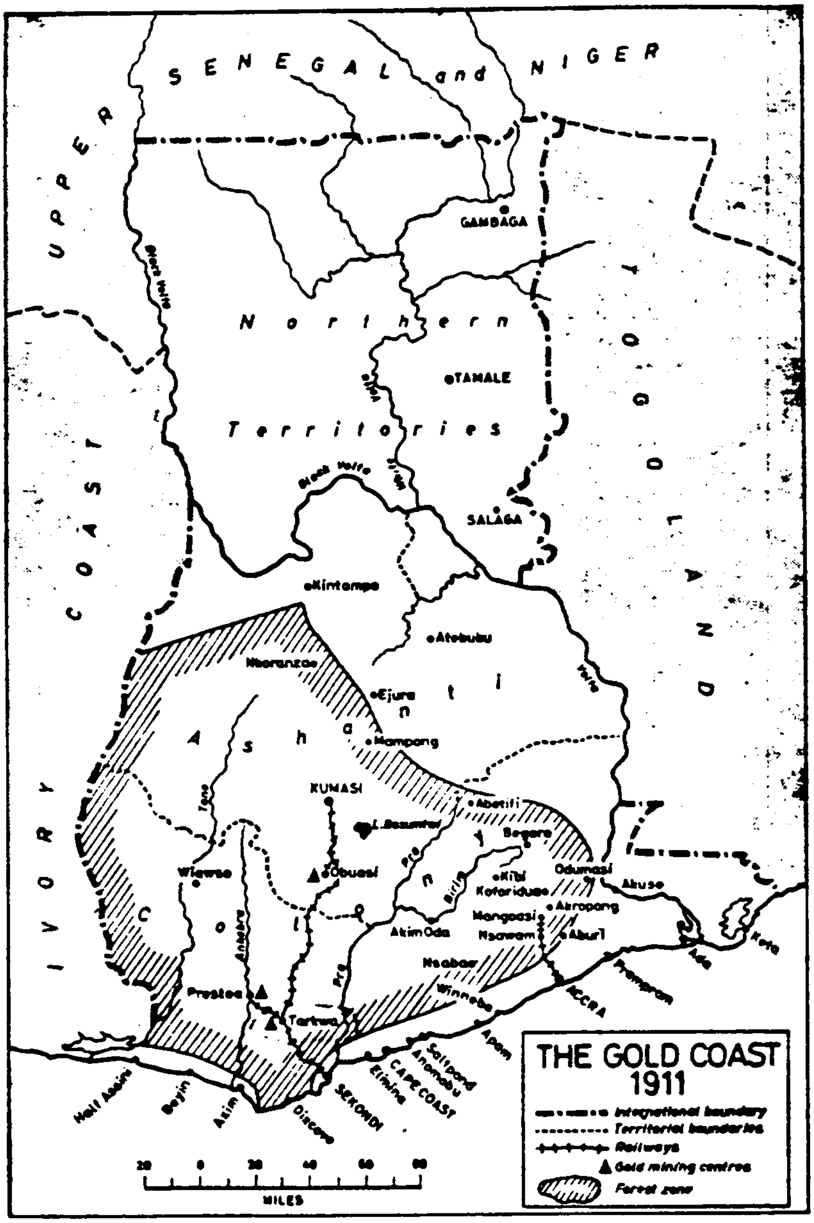
CHAPTER THREE

GHANA BEFORE 1912

We now turn attention to the monetary situation in Ghana before 1912, since history can add to the understanding of our knowledge of monetary studies and help provide a clearer perspective on its problems by looking at them in the dimension of time. It has been said that "a purely contemporary view of any problem is necessarily a limited and even distorted view."[16] This chapter is therefore intended to help place the present and its problems in the perspective of the past.

THE EVOLUTION OF MODERN GHANA

The evolution of modern Ghana began in the last 30 years of the 19th century when the United Kingdom strengthened its tenuous position on the Gold Coast and consequently extended its control northward to the edge of the then Western Sudan. Britain's authority on the coast was restricted in 1872 to small enclaves around the trading forts. But this position was challenged by the Ashanti Union, an alliance of states in the interior with a sphere of influence extending to the coast. In that year the British took a step toward consolidating their foothold by purchasing the trading forts of the Dutch, their only European competitors. Two years later British troops under the command of Major General Sir Garnet Wolseley defeated Ashanti and forced the



MAP OF GHANA IN 1911

Asantehene, the paramount chief of the Union, to renounce his claim to authority over the coast. This led to the British annexation of the coastal states and the creation of a new crown colony separate from the colony of Sierra Leone, to which British possessions on the Gold Coast had previously been attached for administrative purposes. In 1877 the colonial capital was transferred from Cape Coast to Accra.

In 1956 the British Government responded to Dr. Nkrumah's demand for self-determination by declaring its intention to grant independence to the Gold Coast. On March 6, 1957, the Gold Coast became the independent nation of Ghana (the name of an early West African empire) and was admitted as the first West African member of the Commonwealth.

The adjoining territory of British Togoland was then incorporated into Ghana. This territory was that part of the former German colony of Togo placed under a British mandate by the League of Nations after World War I. In 1956 the United Nations gave British trusteeship responsibility over the same region. A plebicite held under the United Nations auspices in 1946 showed a majority in favor of union with the emerging nation of Ghana.

For the first three years of independence, Ghana had a monarchical form of government with Queen Elizabeth II as titular head of state and represented in Ghana by a Governor-General. A plebiscite in 1960 resulted in a majority vote for a republic, and Prime Minister Nkrumah was chosen the first President of the Republic of Ghana. On February 24, 1966, his government was overthrown in a military cum police coup d'etat, and a National Liberation Council (NLC) under the chairmanship of General J. A. Ankrah assumed control of the national government.

MONETARY DEVELOPMENTS BEFORE 1912

A simplified version of Ghana's monetary history would perhaps argue that early economic relations with European traders was carried out by means of barter. The arrival of colonial government brought with it the blessing of an 'issued' money that replaced, by 1920, the 'inconvenience' of barter.[17]

There seems to have been three stages in the growth of foreign trade between European traders and Ghana. In the first stage, trade was an exchange between the export product (gold, silver, and later cocoa) offered by Ghanaians and usually, one type of European product. The acceptable product varied from one part of the Coast to another. Gin was favored in one area, whereas other peoples would take nothing except guns. In the second stage the European traders found that they could offer a composite 'product', consisting of a mixture of European goods. In the third stage, for reasons outside the traders control, that is, the use of force by the British government, foreign trade came to be conducted on the basis of an imported British currency. It is tempting to describe the first two stages as only different types of barter trade. But it is doubtful if the Ghanaians saw it in this light, due to the fact that local currencies were already in circulation before the arrival of Briish colonial rule. In the trade with the Europeans, the goods found most acceptable to the Ghanaians were often those with the status of money in the internal economy. such items included bottles of gin, clothing, and metal rods and bars. Like more developed trading nations, Ghanaians were only prepared to trade in a medium acceptable to themselves.[18]

Ghana, after the establishment of colonial rule, was classified under the Sterling Group, that is, all British "Dependencies" which can be described as being on a sterling exchange basis. They shared the characteristic of not having independent currencies. The monetary authority, which at this time was referred to as the Currency Authority, was no Central bank in the modern sense of the word, since it could not issue and withdraw currency at will. The function of the Currency Authority and other responsible authorities was simply as money-changers, issuing physical currency on demand in exchange for bank payments in the principal or parent currency (UK coins) or redeeming it as required, by payments in that currency.[19] This function was automatic, not discretionary, and was performed under the sanction of Orders-in-Council, Local Ordinance, or other legislative enactments.

The legal tender at the time was the gold, silver and copper coinage of the United Kingdom. In addition to these, there were the local nickel bronze currency of pennies, half pennies and tenth-pennies. Apart from these legal tenders, cowries, manillas (penannualar bronze ingots rather like small bracelets or large finger-rings), and gold dust were used as conventional currency in the more remote areas. In fact, manillas, metal rods and gold dust were made legal tenders. Gold coins were relatively rare at the time, which accounted for the widespread use of the British silver which grew in quantity during and after 1913.[20]

At the time, the arrangement was that any banker, merchant or other person requiring silver coin could have it delivered to him in Ghana by paying the face value in London, the government of UK bearing the cost of delivery. Apart from the existence of non-legal tender currencies, and "foreign" gold coins, the coinage and monetary system in Ghana was no different from that of the UK.

The prevalence of the conventional currencies, non legal tender currencies such as the cowries, were a major threat to the British currencies, in the sense that it reduced the seigniorage enjoyed by the British government in the Gold Coast. The conventional currencies also made the British farthing (one-quarter penny) too large to be the smallest coin. The copper coin, which would have been use for smaller transactions was, for some reasons, unpopular.

The non-existence of bank notes, due to the fact that the prevalence of conventional currencies such as cowries was clear evidence that even the farthing was too large to be the smallest coin made trading operations increasingly inconvenient with growing trade. The traders were compelled to settle all transactions in bags of metal coins.

The UK government's transactions in silver coins were essentially one-way. The government was willing to deliver any amount of its coins in Ghana, once its face value has been paid for in the UK. But then, the legal tender of such coin in the UK was limited to twenty percent that is, 40 shillings, and the United Kingdom did not hold itself liable to buy back the coin at any value at all. It is true that banks in Ghana could pay in silver coin to the Bank of England for the credit of their accounts but only in such amounts as the Bank of England, in agreement with the treasury, agreed to accept. For this service the Ghanaian banks were charged a small fee (about one-half percent). A major defect of this system was that the seigniorage on the UK coin so issued, that is, the difference between its face value and the cost of manufacture and metal, was retained by the UK government. This meant that Ghana was buying large quantities of coins from the UK at a price above its intrinsic value. Ghananians had no assurance of getting their money back if they so desired, except at a cost. One can understand the Bank of England for not making itself liable to buy back the excess coin. According to Clauson, between 1901-1910, the amount of British silver coins in West Africa alone was nine-tenths of the amount of new coins issued in the UK itself, the figure being a little over £90,000 and and less than £100,000.[21]

The Gold Coast government was therefore put in a situation where it has to spend less than it earned. This arose from the fact that in order to acquire enough currency to finance the increasing trade in the Gold Coast the government need to have some funds available in UK to acquire the extra coins.

The above discussion points to three conclusions. First, the option of deficit financing as we have defined it was not available to the colonial government. Second, the monetary system was plagued with serious defects which needed solution. Third, the changeover to a cash trade was not without resistance.

The following weaknesses of the monetary system led to the formation of a committee to look into the system in Ghana and other colonies in West Africa.

In 1912, the committee presented to the British Parliament as CD6426 the "Report of a Departmental Committee appointed to inquire into matters affecting the Currency of the British West African Colonies and Protectorates."[22] This recommendation was accepted leading to the establishment of the West African Currency Board.

CHAPTER FOUR

GHANA AFTER 1912 TO 1957

This chapter traces the monetary history of Ghana from 1912 to 1957, when Ghana gained its political independence from British colonial rule. It discusses the establishment of the West African Currency Board, hoe the government financed its budget during this period and the growth in the money supply.

THE ESTABLISHMENT OF THE WEST AFRICAN CURRENCY BOARD

The West African Currency Board (WACB) was established in 1912 with the following functions:

1) To mint a new silver coinage for British West Africa (i.e., Ghana, Nigeria, Gambia, Sierra Leone), in denominations of two shillings, one shilling, six pence, and three pence.[23]

2) The Board[24] with its headquarters in London was charged with the management of the West African currency on behalf of the four West African governments, buying bullion, having the coinage minted and issuing it at the face value. The profits that accumulated were to be put in a fund to guarantee the convertibility back into sterling of the new currency, if it became necessary.

3) The coinage issued was to be redeemed by the Board at its face value, less a small commission (normally at one-half percent), either for sterling in London or for gold or British silver coin in

West Africa. The Board was empowered to issue a West African paper note based on the same principles as the coins. The British government was also asked to redeem the British silver by instalments, as and when it could be withdrawn in exchange for the new coinage issued by the Board.[25]

Before the establishment of the Board, there was a multiple of currencies, apart from the conventional currencies like cowries in circulation. The Board was therefore established to provide the British West African countries with a distinct and uniform currency which would be freely convertible and at par with the pound sterling.[26] The currency would be backed by the sterling assets to the minimum of a hundred percent of the currency issued and would therefore be as acceptable as the sterling. This was also intended to arrest the costly shipment of the multiplicity of currencies to Ghana and the other colonies.[27]

The Board was given a very limited role in terms of its independence to conduct a monetary policy for the colonies. Its main function was to issue and redeem the currency. It was also charged, within limits set by the law establishing it, to choose securities that would make up the currency cover.[28] The Board could sell or purchase short-dated securities (British Treasury bills) with UK banks or loans of the British government, the British Dominion government, the government of India, the British Colonial government, and British Municipalilities, subject to the proviso that, for greater security, it could not invest in loans issued by its own government. This means that the Board might, for example, hold East African Currency Board securities or any securities issued by countries within the British Empire, but might not hold securities issued by any of the countries under the jurisdiction of the Board. The securities in which investment was permitted was therefore strictly sterling securities.[29] This meant that the government could not ,even if it wanted to, finance its own budget deficits by borrowing from the banking system, and therefore causing any inflationary disturbance to the money supply process. This system barred money creation. In essence discretionary monetary policy was not possible under this monetary regime.

The creation of the Board also provided both a depository in Ghana and the rest of the British West African countries in which surplus currency could be placed, and a source in these countries from which extra currency could be obtained at short notice. The currency in this depository was as completely sterilized as an unissued Bank of England notes in the bank. Indeed, if the stock of coin became too large it could be broken up and sold as metal. In fact Clauson tells us that occasionally this happened.[30]

CURRENCY ACQUISITION UNDER THE WEST AFRICAN CURRENCY BOARD

Such writers as Hogendorn, Gemery, and Hawkins have drawn a direct link between cash cropping and currency acquisition of the British West African countries during the existence of the West

African Currency Board. In fact, Hogendon and Gemery tell us that, the institutional link between cash crop agriculture and the colonial money supply lay in the mechanism for currency issue recommended by the Emmott Committee in 1912, the result of which was the West African Currency Board.[31] In this section we examine this claim.

An examination of the money supply process in Ghana after 1912 until the establishment of the Bank of Ghana in 1960 shows that the money in circulation varied seasonally with the export crop year. At the beginning of the harvest season for the export crops, the Currency Board issues currency through its agents (at this time one or the other of the Expatriate Banks) to the firms who worked as agents (buying and selling) of the State Marketing Boards. This currency is paid over to farmers and middlemen who spend part on either local goods and services or imported goods and hold the rest as savings. That part of the currency issued that are spent on imports would eventually found its way to the banks. The surplus currency is returned to the Currency Board for British sterling, otherwise it remains an idle fund, that is, no interest were earned on them until the next crop season. An increase in the currency in circulation must be financed by some person or body from external funds.[32]

All such issues of currency was therefore dependent on the existence of a surplus in Ghana's balance of payments, the surplus in the form of sterling earnings, financing the original money acquisition. These surpluses were obtained for the most part by cash crop export - primarily cocoa, palm oil, palm kernels and cola. In

1910, cocoa overtook gold as the major export earner. By 1915 contributing more than 50% to the export earnings of Ghana. These surpluses continued to purchase ever increasing amounts of currency. Table III shows that in 1913, when figures for currency in circulation was made available for the first, cocoa exports was £2,489,000 while currency in circulation was a mere £402,967. In 1927, earnings from cocoa exports rose to £11,727,000, contributing an all time record of 81.7 percent of total export earnings. The currency in circulation as expected hit the £10 million mark for the first time. For the period, 1931 to 1947, currency in circulation rose faster than cocoa exports. After 1947, and two years after the second world war, currency in circulation once again trailed behind cocoa exports.

A stylized example would show the connection between agriculture and the mechanism for currency acquisition. In a given year, let us say $10 million in currency was added to the Board's currency in circulation in Ghana, by definition, the difference between all credit (+) items in the balance of payments must be equal to $10 million. As figure I below shows, if produce exports is $75 million, other merchandise, $25 million, and private and government capital outflows, $5 million, then the total for all credits is $100 million. The sum of, merchandise imports of $20 million, services of $10 million and private and government capital outflows and transfer of $10 million, is $90 million. The balancing item for all credits and debits is the amount of the money acquired, $10 million in the above example.[33]

CREDIT ITEMS	PRODUCE EXPORTS	+ 75
	OTHER MERCHANDISE AND SERVICE EXPORTS	+ 20
	PRIVATE AND GOVERNMENT CAPITAL OUTFLOWS, TRANFERS	+ 5
TOTAL CREDITS		+ 100
DEBIT ITEMS	MERCHANDISE IMPORTS	- 70
	SERVICES	- 10
	PRIVATE AND GOVERNMENT CAPITAL OUTFLOWS, TRANSFERS	- 10
TOTAL DEBITS EXCLUDING CURRENCVY ISSUED		- 90
BALANCING ITEM: CURRENCY ISSUED BY WACB		- 10
TOTAL DEBITS		- 100

FIGURE I

STYLIZED BALANCE OF PAYMENTS SHOWING MECHANISM FOR MONEY ACQUISITION ($ MILLION)

TABLE III

EXPORTS, MAJOR AGRICULTURAL EXPORTS, AND CURRENCY IN CIRCULATION
(IN THOUSANDS OF POUND STERLING)
(1913 - 1960)

YEAR (1)	TOTAL EXPORTS (2)	MAJOR AGRIC. CASH CROP (COCOA) (3)	RATIO (3/2) (4)	CURRENCY IN CIRCULATION (5)
1913	5,427,000	2,489,000	45.9	402,967
1914	4,942,000	2,194,000	44.4	463,750
1915	5,943,000	3,657,000	61.5	1,014,787
1916	5,816,000	3,848,000	66.2	1,210,042
1917	6,364,000	3,147,000	49.5	1,141,837
1918	4,472,000	1,797,000	40.2	2,171,237
1919	10,814,000	8,278,000	76.5	6,303,387
1920	12,352,000	10,056,000	81.4	7,510,278
1921	6,942,000	4,764,000	68.6	6,025,407
1922	8,335,000	5,841,000	70.1	6,521,283
1923	8,958,000	6,567,000	73.3	6,410,542
1924	9,914,000	7,250,000	73.1	7,431,369
1925	10,890,000	8,222,000	75.5	7,468,220
1926	12,104,000	9,181,000	75.9	9,560,184
1927	14,350,000	11,727,000	81.7	10,195,627
1928	13,824,000	11,229,000	81.2	9,629,636
1929	12,677,000	9,704,000	76.5	9,410,968
1930	11,287,000	6,970,000	61.8	6,576,169
1931	9,300,000	5,493,000	59.1	6,119,717
1932	8,348,000	5,571,000	66.7	6,027,805
1933	8,048,000	4,971,000	61.8	5,720,416
1934	8,117,000	4,041,000	61.2	6,467,780
1935	9,971,000	5,204,000	52.2	10,295,663
1936	12,636,000	7,660,000	60.6	10,336,037
1937	16,218,000	9,989,000	61.6	12,337,537
1938	15,425,000	4,541,000	29.4	10,674,085
1939	16,235;000	5,101,000	31.4	6,767,521
1940	14,323,000	4,495,000	31.4	9,168,610
1941	13,548,000	4,007,000	29.6	6,379,591
1942	12,550,000	2,385,000	19.0	7,821,985
1943	12,631,000	3,493,000	27.7	8,465,234
1944	12,314,000	3,890,000	31.6	9,750,664
1945	15,430,000	7,144,000	45.4	11,180,303

TABLE III (CONTD)

EXPORTS, MAJOR AGRICULTURAL EXPORTS, AND CURRENCY IN CIRCULATION
(IN THOUSANDS OF POUND STERLING)
(1900 - 1960)

YEAR (1)	TOTAL EXPORTS (2)	MAJOR AGRIC. CASH CROP (COCOA) (3)	RATIO (3/2) (4)	CURRENCY IN CIRCULATION (5)
1946	20,303,000	9,488,000	46.7	14,279,508
1947	27,415,000	16,634,000	60.7	17,963,773
1948	56,113,000	42,166,000	75.1	31,133,528
1949	49,927;000	34,019,000	68.1	29,813,576
1950	77,407,000	54,604,000	70.5	31,475,000
1951	91,990,000	60,310,000	65.6	34,720,000
1952	86,377,000	52,533,000	60.8	34,800,000
1953	89,943,000	56,143,000	62.4	34,741,000
1954	114,594,000	84,599,000	73.8	34,608,000
1955	95,661,000	65,559,000	68.5	33,778,000
1956	86,599,000	51,062,000	59.0	38,000,000
1957	91,602,000	50,873,000	55.5	32,000,000
1958	104,558,000	62,318,000	59.6	35,732,000
1959	113,359,000	68,779,000	60.7	41,556,000
1960	115,989,000	66,434,000	57.3	47,727,000

SOURCES:

1. KAY, _op. cit._, various pages
2. COX-GEORGE, _op. cit._, various pages

The prominence of cash crop exports (cocoa alone contributing over 50%) in total exports is evident from table III below. Except for the period, 1938 to 1946, cocoa accounted for over 55% of the total value of exports (see column IV of table III), for the period under review.

This clearly shows that the ability of the Ghanaian government to import, including currency acquisition, depended largely on the performance of the cocoa industry. Column V of Table III, shows the currency issued by the Board in Ghana (1900-1960).

The close correlation between cocoa exports and the currency in circulation is evident from the result of the simple regression shown below. We used the currency as the dependent variable, the earnings from cocoa export as the only independent variable, the result was:

$$\text{Currency} = 4385874 + 0.5240494\ \text{Cocoa}$$

$$(0.95487)$$

$$t \qquad (21.80296)$$

$$SEE = 0.02404 \quad R^2 = 0.91177 \quad r = 0.95487 \quad DW = 1.01384$$

Frequency: Annually.

The regression coefficient is significant at the 99 percent level of confidence. This results shows that an increase (decrease) in the earnings from cocoa by say $1 million would cause currency in circulation to increase (decrease) by $524,049. The results are very impressive, for the reason that cocoa earnings accounted for over 91 percent in the variation in currency in circulation.

This result, however, shows that the error term and the dependent variable (currency) follow an autoregressive process as indicated by the value of the Durbin-Watson statistic. This means that the above results may not be consistent. We therefore tried the Cochrane-Orcutt Procedure to derive consistent estimates. The result is shown below.

$$\text{Dcurrency} = 3080825 + 0.47421\ \text{Dcocoa}$$

(0.89394)

t (13.37984)

SEE = 0.03544 R^2 = 0.79912 r = 0.89394 DW = 1.61963

Frequency: Annually.

The above correction procedure shows that the regression coefficient is significant at the 99 percent level of confidence. The result also indicates that, correcting for the autocorrelation among the error terms and currency in circulation, cocoa explains over 79 percent of the variation in currency in circulation, and that a $0.89 increase (decrease) in the earnings from cocoa caused $1.00 increase (decrease) in the currency in circulation for the period under discussion.

GOVERNMENT FINANCING OF BUDGET DEFICITS

Some of the main ingredients of the colonial government fiscal policy, at least until 1950, seem to have been, 1) how to finance agricultural divestication, 2) how to make the transport system pay for itself, 3) to finance government capital expenditures from external sources. Kay has observed that the colonial government financed its expenditure on economic infrastructure, railways, and harbors, differently from that of other items, that is, by borrowing rather than out of general taxation. In fact the government deliberately refused to cast its fiscal net widely, raising most of its revenue from indirect taxes on external trade. There was no attempt on the part of the government to raise loans locally. As table IA shows the government did not raise any loans locally before 1950.[34]

Though the government policy seems to have been geared toward a surplus budget, government commitments during the first World War (£60,000 for war expenditure, and another £80,000 as a war contribution to the Imperial Government of Britain), and after (increases in duty allowances and salaries and other government expenditures due to demand induced inflation) caused the colonial government to spend beyond its current revenues. Between 1912 and 1931 the government spent a total of £13,603,000 above its revunues. This budget deficit was financed at the expense of investment expenditure. Budget surpluses accumulated between these years accounted for £757,000. while foreign loans accounted for £10,374,000. As noted above no consideration was made of domestic loan, for political reasons. Kay tells us that it was through borrowing from London that British financial interests became involved in the colonial economy, and were therefore able to set a safe and steady return.[35] Kay

(1973) seems to suggest that British financial interests forced their loans upon the colonial government in order to guarantee a rentier income. In fact Kay wrote "It was through financial policy that the colonial government sought to orchestrate the interests of these two sections of British capital."[36]

For the years, 1912-1931, the colonial government accumulated a net deficit of £3,612,000, as can be seen from Table IA. Though there was a net deficit, the currency in circulation rose, more than tripling, between 1914 and 1918 (see Table IA).

Two conclusions can be drawn from this observation, that is:

1. Government deficit financing was inflationary, by our definition, that is, run down of reserves (or surplus balances).

2. This gives credence to our earlier assertion that currency acquisition was a function of cocoa exports. During this period other export commodities declined, except cocoa which showed a remarkable increase, as can be seen from Table III.

Between 1931 and 1955 the government accumulated a total of £6,776,300 in surplus balances.

We can conclude from the above analysis the fact that, for the period 1912 to 1960, government budget deficits were financed out of surplus balances. Government budget deficits therefore tended to decrease the surplus balances, whereas budget surpluses tended to increase the surplus balances for the same years.

THE GROWTH OF THE MONEY SUPPLY

In this section, we analysis the growth of the money supply for the period 1912 to 1960. Table III shows that the money supply or more properly the currency supply, continued to grow for the years 1913 to 1960.

Between 1914 and 1918, the currency in circulation increased five-fold over that observed in 1913. Although there are no available data, we suspect that there must have been considerable inflationary pressure on the economy.

The only figures of savings deposits readily available are those made through the Post Office Bank, which by 1918 had grown to 32 branches with a total savings deposits of £52,114. The Post Office Savings Bank was organized wholly through the Bank of the British West Africa Limited and the 'Colonial Bank', later changed to the Barclays Bank. Table IV clearly show that, apart from the fact that the increase in savings bank facilities helped more people to effect savings institutionally, savings deposits increased continuously up until 1916 and then declined in 1917 and 1918. A possible explanation being that by 1916 the amplitude of the inflationary wave was so widespread that people were beginning to eat into their savings to maintain consumption, or shifted these deposits to other assets because of the decline in their net return.

TABLE IV

POST OFFICE SAVINGS BANK RETURNS, 1900-60

YEAR	NUMBER OF LIVE ACCOUNTS AT THE END PERIOD (000)	BALANCE AT BEGINNING (£000)	INCREASE IN DEPOSITS (£000)	INTEREST ON DEPOSITS (£000)	WITHDRAWALS (£000)	BALANCE AT END OF THE FINANCIAL YEAR (£000)
1900	0.3	5.0	3.4	0.10	4.0	4.5
1901	0.3	4.5	3.5	0.10	3.6	4.5
1902	0.4	4.5	4.1	0.09	3.4	5.3
1903	0.3	5.3	6.2	0.10	5.9	5.8
1904	0.4	5.8	6.6	0.10	5.6	7.0
1905	0.6	7.0	5.6	0.20	3.8	9.0
1906	0.9	9.0	9.0	0.20	5.4	12.8
1907	1.3	12.8	12.8	0.30	10.6	15.3
1908	1.7	15.3	16.6	0.40	11.7	20.7
1909	2.2	20.7	17.1	0.02	13.6	24.7
1910	2.3	24.7	20.2	0.60	16.3	29.2
1911	3.1	29.2	24.0	0.70	19.1	34.8
1912	3.9	34.8	25.4	0.80	22.5	38.6
1913	4.3	38.6	30.1	0.90	24.3	45.3
1914	5.6	45.3	33.2	1.10	27.7	51.9
1915	5.1	51.9	37.3	1.20	34.8	55.6
1916	5.8	55.6	43.5	1.30	39.0	61.4
1917	5.9	61.4	39.9	1.40	45.0	57.8
1918	5.8	51.8	33.0	1.20	33.9	52.1
1919	5.8	52.1	42.0	1.20	40.9	54.4
1920	6.0	54.4	31.5	1.20	35.1	52.1
1921	6.3	52.1	28.1	1.40	30.3	51.2
1922	5.3	51.2	30.3	1.40	31.4	51.1
1923	5.8	51.1	34.1	1.40	35.7	51.0
1924	6.3	51.0	39.6	1.40	37.3	54.7
1925	7.3	54.7	45.5	1.50	40.9	60.9
1926	8.4	60.9	50.7	1.70	44.8	68.5
1927	10.0	68.5	72.6	2.00	59.2	84.0
1928	11.2	84.0	66.8	2.30	62.3	90.8
1929	12.4	90.8	81.3	2.50	76.1	98.4
1930	13.4	98.4	66.4	2.50	78.1	89.3

TABLE IV (CONTD)

POST OFFICE SAVINGS BANK RETURNS, 1900-60

YEAR	NUMBER OF LIVE ACCOUNTS AT THE END PERIOD (000)	BALANCE AT BEGINNING (£000)	INCREASE IN DEPOSITS (£000)	INTEREST ON DEPOSITS (£000)	WITHDRAWALS (£000)	BALANCE AT END OF THE FINANCIAL YEAR (£000)
1931	-	89.1	66.3	2.40	63.6	94.2
1932	-	94.2	71.2	2.60	65.3	102.7
1933	-	102.7	79.9	2.90	70.5	115.0
1934	-	115.0	95.2	2.90	70.9	142.2
1935	-	142.2	120.1	3.50	94.3	171.6
1936	-	189.9	202.5	4.50	118.8	278.0
1937	-	278.0	147.5	5.90	184.6	246.8
1938	-	246.8	163.9	5.70	140.6	275.8
1939	-	275.8	161.3	6.10	148.7	294.6
1940	45.6	294.6	166.0	6.30	148.6	318.3
1941	61.0	318.3	299.7	8.30	170.9	455.4
1942	85.3	455.4	516.9	12.60	259.4	725.5
1943	125.0	725.5	804.0	20.80	419.2	1,131.2
1944	158.7	1,131.2	925.2	29.70	544.1	1,542.0
1945	195.9	1,542.0	1,473.8	40.10	868.1	2,187.8
1946	225.6	2,187.8	2,137.3	51.50	1,862.3	2,514.3
1947	256.5	2,514.3	1,684.6	62.60	1,204.0	3,057.5
1948	283.7	3,057.5	2,179.3	75.50	1,438.0	3,874.1
1949	308.8	3,874.1	1,807.1	90.20	1,726.2	4,045.3
1950	337.9	4,045.3	2,328.5	98.00	1,781.7	4,683.0
1951	365.7	4,683.0	2,124.3	113.10	1,804.3	5,116.0
1952	396.7	5,116.0	2,000.0	121.40	1,920.8	5,317.5
1953	426.2	5,317.5	1,846.3	123.70	1,983.8	5,303.6
1954	455.9	5,303.6	1,801.9	118.30	2,127.5	5,096.6
1955	488.4	5,096.6	1,851.7	120.9	1,774.6	5,294.5
1956	522.0	5,294.5	1,900.0	124.9	1,913.2	5,406.2
1957	547.3	5,406.2	1,574.2	122.3	1,983.7	5,119.0
1958	572.3	5,119.0	1,588.1	120.2	1,784.7	5,042.7
1959	592.2	5,042.7	1,454.8	114.7	1,719.6	4,892.6
1960	621.8	4,892.6	1,751.3	117.6	1,599.3	5,162.1

SOURCE: KAY, op. cit., p. 403-404.

TABLE V

NUMBER OF BANKS AND BRANCHES, 1906-60 (SELECTED YEARS)

YEAR	BANK OF WEST AFRICA	BARCLAYS BANK	GHANA COMMERCIAL BANK	OTHERS	TOTAL
1906	9	-	-	-	9
1910	10	-	-	-	10
1915	10	-	-	-	10
1920	12	6	-	-	18
1925	12	6	-	-	18
1930	16	9	-	-	25
1935	10	9	-	-	19
1940	11	9	-	-	20
1944	9	8	-	-	17
1951	12	7	-	-	19
1952	13	7	-	-	20
1953	16	11	1	-	28
1954	-	-	-	-	-
1955	19	14	2	7	42
1956	-	-	-	-	84
1957	26	33	2	19	80
1958	34	49	3	3	89
1959	-	-	-	101	101
1960	40	53	6	105	204

SOURCES: 1. K.B. KAY, THE POLITICAL ECONOMY OF COLONIALISM IN GHANA, p. 419.
2. N.A. COX-GEORGE, STUDIES IN FINANCE AND DEVELOPMENT, p. 194.

The period, 1950 to 1960, witnessed an accelerated growth of the banking system both in terms of their physical expansion and in their use, culminating in the establishment of the Bank of Ghana, which we treat in the next chapter. By 1955 both the indigenous and foreign banks had opened branches in most major towns in Ghana. Table V shows that in 1951 there were 3 commercial banks with a total of 19 branches, and total advances of £2,696,000 in Ghana. By 1955 these figures have almost doubled. The number of branches grew to 204 in 1960 (this figure includes 105 Post Office Savings Banks), with a total commercial banks advances, which is also used as an indicator of the expansion of the internal market economy, reaching a real level of £19,581,000.

The total currency (notes and coins) outstanding remained relatively stable around the £34 million mark for the period 1951-55, according to Table III. Aggregate money supply, apart from the slow down in 1957, showed a very large and continuous rise from £38.9 million in 1950 to £696.4 million in 1961. It is by now obvious that bank money has played a significant role in the Ghanaian economy in this period. The money economy increased tremendously, as reflected by the use of bank money. Modern methods of business financing are also evident, as reflected in the continuous and steeply rising trend in commercial banks loans and advances.

CHAPTER FIVE

THE ESTABLISHMENT OF THE BANK OF GHANA

The West African Currency Board was entrusted with the management of currency in Ghana and other British West African countries in 1912 until Ghana became independent and established its own Central Bank of Ghana. In this chapter we discuss the functions of the bank of Ghana, its management of the money supply and how government deficit financing operations was affected by it.

The main reason for the establishment of the Bank of Ghana was political. It is reflected in the statement by the then President of Ghana, President Kwame Nkrumah who asserted "Our political independence will be meaningless unless we use it to obtain economic and financial self-government ... whatever may be a country's political relationship to the world, it is still for all practical purposes a colony if the whole of its hard earned savings are invested in some other developed country."[37] The establishment of the Bank of Ghana and the subsequent withdrawal of Ghana from the West African Currency Board was perhaps one of the major economic blunders committed by the Nkrumah government in the sense that Nkrumah's government took a currency widely accepted from circulation and replaced it with a currency that is by now not even admired by the country itself.

The above observation does not mean to suggest that there were no economic reasons for the establishment of the Bank of Ghana.

Indeed, the bank of Ghana was established to act as the banker to the government and the commercial banks. It was to be the watchdog and advisor to the government on economic policy and as a promoter of economic development. The Bank of Ghana was given the sole responsibility for compiling monetary data in Ghana. These functions of the Bank of Ghana are discussed later in this section.

The government of Ghana committed a serious economic blunder, by disregarding certain important benefits provided by the Currency Board System, such as currency stability, acceptability and convertibility, access to markets for investing currency cover and currency surpluses without the responsibility for the intricate task of managing assets, and an efficient, low-cost mechanism for currency issue and redemption which, for many years, had been returning profit and providing a valuable source of revenue for the Ghanaian government. As will be seen in subsequent sections the Bank of Ghana became a major mechanism for inflation and weakened constraints on government expenditures.

The Ordinance which brought the Central Bank of Ghana into being was drafted and adopted in 1957. Since then the political, economic, and social structures of the country have greatly changed. Accordingly, the 1957 Ordinance has seen a number of changes, the major one coming in 1962. The 1962 Ordinance provided the Bank of Ghana with 7 major provisions; (1) establishment and capital,(2) currency, (3) Gold, foreign exchange and credit operations, (4) control of banking, (5) the bank as banker and fiscal agent, (6) accounts and statements, and (7) miscellaneous.[38]

The Bank of Ghana was established "as a body corporate with perpetual succession and a common seal; may sue or be sued in its corporate name." It was given an authorized capital of £10 million, which would be increased from time to time by the government. Its major functions were; (a) to issue and redeem bank notes and coins, (b) to administer, regulate and direct the credit and currency systems, (c) to regulate and direct the credit and banking system in accordance with the economic policy of the government, (d) to promote, by monetary measures,[39] the stabilization of the value of the currency within and outside Ghana, (e) to propose to the government measures which are likely to have a favorable effect on the balance of payments, movement of prices, the state of public finance and the general development of the national economy and monetary stability.[40]

The Ordinance recognized the Ghanaian pound sterling as the currency unit. The pound sterling was divided into 20 shillings, each shilling being an equivalent of 12 pence. The currency unit was on July 19, 1965 changed to the cedi, a decimal system for convenience.

The assets of the Bank of Ghana was mandated to include; (a) gold coins or bullions, (b) sterling notes, coins, bank balances and convertible currencies with any bank outside Ghana, (c) treasury bills of the government of any convertible currency country, (d) bills of exchange bearing at least 2 good signatures drawn on any place outside Ghana, payable in convertible currency and having a maturity not exceeding 3 months excluding days of grace, (e) securities of governments other than the government of Ghana, expressed in convertible currency, (f) treasury bills of the government of Ghana, which have been publicly issued or form part of an issue which is before the public at the time of acquisition and the special drawing rights with the International Monetary Fund (IMF).[41]

The Bank of Ghana was entrusted with the right to import, export, refine, buy, hold, sell, transfer or deal in silver, platinum, gold and other precious metals. The Bank could acquire, hold and transfer foreign exchange and foreign government securities. It could also lend money or grant short-term credit to a foreign institution and guarantee a loan granted to the government or any other person in Ghana by a foreign institution.

As the banker's bank, the bill establishing the Bank granted to the Board of Governors the right to determine the reserve requirement on all deposits at any banking institution. It could also determine the amount of liquid assets that could be held by the country's banking institutions, as a percentage of their deposit liabilities. The banking institutions were also required to submit periodic reports concerning the status of their liquid assets to the Central bank. Persons contemplating opening a new banking institution, closing an old one, changing of capital or name, or planning a merger with other banks are required to consult with the Central bank for approval.

As part of the Bank's fiscal function, it could extend temporary "advances to the government in respect of temporary deficiencies of budget revenue and the total amount of such advances shall not exceed at any time 10 percent of the estimated budget revenue." However, all advances made would be paid 3 months from the end of the fiscal year in which the advance was made.[42]

MONETARY DEVELOPMENTS AFTER INDEPENDENCE

This section provides an overall view of the monetary developments after independence. After independence, the government took upon itself the task of speeding the country's rate of economic growth, an effort which involved it heavily in the financing and operation of a range of agricultural, infrastructural, and industrial activities. The decision reflected the government's commitment to increase government control over the economy, in General Acheampong's words "capturing the commanding height of the economy", to diversify the agricultural base and export dependence and to provide employment for its many thousands of loyal supporters.[43] It was argued that this decision was forced on it by the fact that the private sector was very much restricted to small scale farming, trade and industry, and had insufficient capital. In the absence of viable stock market, it was asserted that there was very limited way of marshalling what little resources there were.

The decision on the part of the central government to assume responsibility for increasing the rate of growth led also, after 1961 in particular, to a shift in the emphasis of government spending, because of limited resources, away from investment and support for primary infrastructure and service type projects to direct investment in trade and industry, This also affected the money supply process.

Table VI shows the development of Ghana's money supply as a function of the money supply components for the years 1956 to 1982. Before 1960, Ghana was on the sterling standard because the money supply was backed primarily by reserves of the pound sterling. In December 1960, foreign exchange made up almost 89 percent of the money supply cover, that is, foreign exchange balances of the banking system versus the total money supply. A year later the figure had fallen to 66 percent, and continued to decline, although at a reduced rate to 54 percent in 1963. This decline in foreign exchange cover did not mean a reduction in the money supply. Instead the government securities and treasury bills increased to offset the fall. The trend of the changes in the money supply components and the cover, have profound implications for Ghana's present inflation.[44]

The problem of money supply and credit in Ghana is linked with the seasonal swings of economic activity which are accentuated from Ghana's dependence on the cocoa crop, which provides over 60 percent of the foreign exchange earnings of the country. Business activity begins to accelerate around the middle of September as the main crop is harvested. Commercial banks expand their lending to the public at this time to finance cocoa purchases and the business activity stimulated by the harvest. The increased lending for cocoa purchases lasts in December, when receipts from cocoa sales begin to flow in and the loans are liquidated. Thereafter, banks find themselves with idle cash which they invest in government stocks and securities until the

TABLE VI

MONEY SUPPLY (1956 - 1982)
(MILLIONS OF CEDIS)

YEARS	COIN & CURRENCY IN CIRCULATION	DEMAND DEPOSITS	MONEY SUPPLY I	TIME & SAVINGS DEPOSITS	MONEY SUPPLY II
1956	57.9	33.0	90.9	21.2	112.1
1957	57.6	34.2	91.8	23.6	115.4
1958	52.1	38.0	90.1	25.9	116.0
1959	56.4	40.2	96.6	30.9	127.5
1960	62.9	45.4	108.3	34.6	142.9
1961	71.2	53.9	125.1	39.1	164.2
1962	77.6	68.1	145.7	41.9	187.6
1963	79.5	81.8	161.3	49.4	210.7
1964	96.6	99.8	196.4	58.8	255.5
1965	115.8	125.4	241.2	70.6	311.8
1966	103.3	135.9	239.2	75.2	314.4
1967	91.6	148.7	240.3	84.8	325.1
1968	101.1	149.7	250.8	97.9	348.7
1969	108.9	152.5	261.4	107.2	368.6
1970	150.7	154.8	305.4	121.2	426.6
1973	245.0	318.7	563.8	229.8	793.6
1974	335.9	361.3	697.0	307.7	1,004.7
1975	485.6	523.2	1,008.8	377.5	1,386.3
1976	706.9	723.3	1,430.2	472.0	1,902.2
1977	1,154.1	1,229.2	2,386.4	651.2	3,037.6
1978	2,101.7	1,986.7	4,088.4	1,005.0	5,093.4
1979	2,458.5	2,172.3	4,630.8	1,262.3	5,893.1
1980	3,521.3	2,537.1	6,058.4	1,861.6	7,920.0
1981	6,049.5	3,695.5	9,745.0	2,613.5	12,358.5
1982	6,957.2	4,482.3	11,439.5	3,632.5	15,072.0

SOURCES:

1. A WORLD BANK COUNTRY STUDY, GHANA: POLICIES AND PROGRAMS FOR ADJUSTMENT 1984.

2. MONTHLY ECONOMIC BULLETIN OF GHANA, MARCH 1970 p.75 TABLE H-3.

next crop year. Normally, the country experiences an expansion in the money supply between September and December, during the main crop season and a minor bulge in June, during the mid-crop season.

Before the days of large Government deficits and marginal Government foreign exchange reserves, the repayment of loans at the end of the cocoa season caused a decrease in the money supply. Now credit to the Government more than soaks up those idle balances. The result is that when commercial banks go to the Bank of Ghana in September to discount treasury bills and Government paper in order to free funds for more lucrative outlets in credit to the public, Bank of Ghana's Issue Department finds its coffers choked with treasury bills, not cash. With the discount window not properly constrainted the Bank of Ghana then prints more money, to fill the gap. As we will see later the increased stock of money has been mainly responsible for Ghana's inflation. This situation, according to Norris has led to Ghana's money supply taking on a "step" appearance.[45]

BUDGET DEFICITS AND THE MONEY SUPPLY PROCESS

When the government incurs deficits in the process of increasing its spending (or cutting taxes), one way to finance these deficits is to "print money". In this section, we examine the mechanism by which the government deficits are linked to the money supply process.

When the Bank of Ghana was established in 1957 under Ordinance No. 34, it was empowered, as part of its fiscal functions, to extend

ASSETS		LIABILITIES	
CASH	190.9	RESERVES OF COMMERCIAL BANKS	195.8
SECURITIES & BONDS	588.2	TREASURY DEPOSITS	70.2
LOANS TO BANKS	67.4	SPECIAL DEPOSITS	126.6
FOREIGN ASSETS	129.6	BANK OF GHANA NOTES	368.0
OTHER ASSETS	228.0	FOREIGN LIABILITIES	108.3
		OTHER LIABILITIES & NET WORTH	335.2
	1204.1		1204.1

FIGURE II

A T-ACCOUNT OF THE BANK OF GHANA

AT THE END OF 1974

(IN MILLIONS OF CEDIS)

SOURCE: Ewusi, *op. cit.*, p. 17.

temporary "advances to the government in respect of temporary deficiencies of budget revenue and the total amount of such advance shall not at any time exceed ten per centum of the estimated budget revenue, as laid before the National Assembly, for the financial year in which the advances are made. "Subject as aforesaid the Bank of Ghana may in certain cases make advances not exceeding 15 per centum of the estimated budget revenue if the President so requests."[46] This means that technically the government could obtain enough advances to cover all of its budget deficits if the deficit is less than 15 percent of the estimated budget revenue.

In February 1967, the Bank of Ghana Act 1963, which had set the percentage at 60, was amended through a decree by the National Liberation Council (NLC), the military government at the time, permitting the Bank, retroactively from July 1, 1965, to hold Ghana government treasury bills and securities, commercial bills of exchange and promissory notes up to a maximum of 75 percent of the currency in circulation (coins and Bank of Ghana notes). In fact, Naseem asserts that in June 1965 the ratio of government securities and other bills held as currency cover to currency in circulation had risen to about 72 percent. The other 28 percent were covered by foreign exchange.[47]

Some of the economic characteristics of the Central bank can be observed by examining the consolidated balance sheet of the central bank as of the end of 1974. (See Figure II.)

On the asset side, the largest item is securities. These are mainly Ghana government securities the central bank continually buys and sells. The loans item represents short-term credit extended to commercial banks for the purpose of adding to bank reserves, thereby increasing bank deposits and the money stock

On the liabilities side are the reserves commercial banks are required to keep at the Bank of Ghana or as vault cash. Commercial banks' reserves represent liabilities of the Central bank and may be relinquished at any time by the commercial banks. Treasury deposits represents the checking account that the government of Ghana has on deposit for the purpose of paying its bills. Special deposits[48] represent Central bank liabilities which importers and commercial banks are required to keep with the central bank, through directives. The Bank of Ghana notes (cedis), the largest single liability item, is the official name of the paper currency in Ghana.

In order to understand how government deficits can alter the quantity of money in the economy, it is first necessary to understand the nature of transactions that takes place within the banking community.

To finance its budget deficits, the Treasury Department of the Bank of Ghana sells government bonds and securities most likely to institutions, commercial banks and other state corporations, the proceeds from which it deposits at the Bank of Ghana. The Government's deposits at the Bank of Ghana is then credited with the amount of the sale. The Government can then write checks on these added deposits in its account for the purchase of goods and services.

However, it should be recognized that by itself, the Treasury's sale of bonds does not change the nation's total money supply. The check written by the original buyer reduces demand deposits at commercial banks. But this decrease is exactly offset by the increase in demand deposits that occur when people who sell goods and services to the government deposit the Treasury's checks in their accounts.

The key transaction in the process of printing money to finance deficits is when the Bank of Ghana buys government debt back from the original buyers. Now the money supply is increased, the same as if these deposits were new ¢50 or ¢100 bills. The deficit becomes monetized, and hence the term "printing money". Since the Bank of Ghana pays for the bonds with credit it creates, there may occur a further expansion in the money stock due to the increase in commercial bank reserves.

Table IB shows the magnitude of the Bank of Ghana sale of government securities during the period under review. Government stocks and bonds bought and sold stood at ¢9.6 million in 1961. The total rose sharply to ¢70.8 million two years later, but fell to ¢58 million the following year, when the government realized the danger of its continuous budget deficits and made a conscious effort to reduce it. The deficit stood at ¢160.8 million in 1962, but declined to ¢118.7 million in 1964. Note that the central bank's purchases brings forth a multiple expansion of the money supply so that the total money supply increase many times more than the purchases of bonds by the Bank of Ghana. Thus, additional nominal credit is supplied to the private sector.

In 1968, the Bank of Ghana embarked on a programme to expand the money supply by N¢10 million, approximately 4 percent of the end-1967 level of N¢241 million. The Bank of Ghana estimated that to expand the money supply by this much over the year it was necessary to allow for a N¢15 million increase in credit to the private sector. The Bank of Ghana calculated that the expansion of credit on this scale, coupled with the anticipated increase in Ghana's international reserves would bring the factor contributing to an expansion of the money supply to N¢22 million.[49]

An increase in the money supply generally causes inflation, provided that money grows faster than real output, which it did according to the World Bank findings. While Table VI shows an expanding money supply, the World Bank country study shows that Gross National Product grew at -0.86 percent per annum for the same period.[50] Indeed, we should be surprised if Ghana did not experienced inflation during this period. According to Ayittey, "An increase of ¢1 million in the money supply would raise the domestic price by 3.6 percent, reduce effective savings by ¢4.8 million and real income by about ¢2.0 million."[51]

We now turn our attention to foreign exchange and the money supply process. Then we discuss the money supply process and its effect on prices.

FOREIGN EXCHANGE AND THE MONEY SUPPLY

A distinction must be drawn between foreign exchange that is used as a backing for the domestic money supply, as was the case before the establishment of the Bank of Ghana and foreign exchange balances that represent active purchasing power, that is, effective demand and foreign reserves against future foreign debt-service charges. This section examines the relationship between foreign exchange and the money supply. In a later section, we will discuss how the changes in money supply affect prices.

The establishment of the Bank of Ghana meant a decline of foreign exchange as a factor in the money supply process. Ghana, like the nations that rejected the international gold standard in the thirties, wanted monetary independence. By holding a large portion of its assets backing the money supply in the form of government securities and treasury bills, the government hoped to control the size of the money supply and thus the level of economic activity in Ghana as well as to have a cheap and easy way to finance its budget deficits.

Ghana, like so many less developed countries, has had balance of payment problems, arising primarily out of an unfavorable current account balance under a regime of fixed or managed exchange rates requiring central bank intervention. Table VII shows that in December, 1960 Ghana's foreign reserves stood at £148,635,000, by December 1963 this figure has declined to £43,235,000. This meant that the monetary base increased by more than £100 million from this source.

By law and administrative regulation, the currency in circulation requires 60 percent backing in the form of foreign reserves (though at the discretion of the Minister of Finance, and after consultation with the Bank of Ghana, the requirement can be reduced to 40 percent). These consist of foreign exchange assets - gold, UK Bank Balances and securities, and Special Drawing Rights with the IMF, plus some Ghana Government securities, all held by the Bank of Ghana.

In June 1960, the Government held £50.1 million in foreign securities. The following year, it incurred a budget deficit of £30.2 million and financed 60 percent of this deficit (£18.1 million) through the sale of such securities. The Banking System financed 27 percent, and sources outside the Banking System accounted for the remaining 13 percent. In 1962, a statistically difficult year because of the change in the fiscal year from June - June to September - September, sale of foreign reserves and securities provided about 30.8 Percent of the estimated £53.7 million deficit. The Banking sector provided 32.2 percent of the estimated amount. Bank of Ghana contributed £5.2 million and the commercial banks £12.1 million for a total of £17.3 million of this amount. Other sources, made up primarily of public (nonbanking) purchases of treasury bills of £10.7 million,[52] provided 37 percent, that is, £20.1 million.

By 1965, the Government has virtually emptied its foreign reserves coffers. The State Marketing Boards, especially the Cocoa

TABLE VII

EXTERNAL RESERVES AND THE MONEY SUPPLY
(1960 - 1964)

PERIOD ENDING	EXTERNAL RESERVES (£ MILLION)	MONEY SUPPLY[1] (£ MILLION)	SEASONAL CONTRACTION[2]	PEAK-TO-PEAK EXPANSION[3]
DEC 1960	148.6	68.7		14.5%
MAR 1961	139.8	63.7		
JUNE 1961	118.1	58.6		
SEPT 1961	98.6	54.5	20.6%	
DEC 1961	73.7	72.7		
MAR 1962	70.7	65.8		
JUNE 1962	77.2	64.0		
SEPT 1962	80.3	59.4	18.2%	
DEC 1962	72.4	81.6		12.2%
MAR 1963	67.0	75.7		
JUNE 1963	68.7	76.5		
SEPT 1963	64.3	73.8	9.6%	
DEC 1963	43.5	94.7		16.0%
MAR 1964	43.0	94.2		
APR 1964	na	95.3		
MAY 1964	na	91.5	3.3%	

1 Government deposits in the central bank are excluded
2 Peak-to-peak change
3 Peak-to-valley change

SOURCE: Norris, op. cit., p. 98.

Marketing Board, which held practically all nonbanking external reserves, were called on to help finance the deficits. This source was tapped through the use of "compensatory stocks". These are notes of indebtedness which were issued to the State Boards in exchange for their external reserves, which were then sold to the Bank of Ghana for deposits in favor of the Government. The key for this process causing inflation lies in the increase of Bank of Ghana reserves created to buy the external reserves and thereby an increase in demand deposits at the commercial banks in favor of the State Boards, magnified by the multiple expansion process that occurs due to the initial creation of excess reserves.

COMMERCIAL BANKING AND THE BANK OF GHANA

We saw earlier on how the government deficit financing increases commercial bank deposits and reserves and therefore the money supply. In this section we examine how the Bank of Ghana tries to control the money supply.

The Bank of Ghana has four tools of monetary control:

(a) open market operations,

(b) the discount rate,

(c) reserve requirements, and

(d) Bank of Ghana directives.

Open market purchases increase Bank of Ghana holdings of government securities and thereby increase depository institutions reserves. This results in a larger money supply, which other things being equal, has an expansionary nominal effect on the economy. The opposite reaction takes place when the Bank of Ghana sells government securities. The ultimate effect of open market sales is to contract the nominal economy, ut. par. It is important to note that open market purchases are not always expansionary nor are open market sales always contractionary. Purchases and sales are often purely defensive, that is, they are meant to offset changes in demand for currency, and to sterilize and offset movements in gold and foreign exchange.

The Bank sets the discount rate. All things being equal, an increase in the discount rate decreases commercial banks demand for borrowed reserves. This causes total reserves to fall, which in turn causes the money supply to contract. A decrease in the discount rate does just the opposite, provided that the Bank of Ghana is willing to accomodate the commercial banks' increased demand for loans.

In its Annual report of 1967, the Standard Bank reported that the discount rate was reduced from seven percent to six percent on May 8, and commercial bank lending rates were adjusted accordingly. However, special consideration was given, at the wish of the government, to requests for industrial and agricultural loans.[53] To support the government's fiscal and other policies disclosed in the government's 1970 budget, the Bank of Ghana announced, effective, July 27, 1971, its own measures which were meant to mobilize all available investible funds and encourage saving. The discount rate was accordingly increased from 5 percent to eight percent per annum and the treasury bill discount rate from four percent to 6 percent per annum.[54]

Reserve requirements also help determine the supply of money. An increase in the reserve requirements has no effect on total reserves but it does change the composition of total reserves by transforming some excess reserves into required reserves, and hence, the potential for money supply expansion and contraction. Thus other things being equal, the money supply varies inversely with the reserve requirements.

On April 17, 1964, the Bank of Ghana announced the following measures for reserve requirements:

1. The commercial banks should hold 48 percent reserves against total deposits from March 1 to August 31 (off-season in terms of the cocoa cycle) and 54 percent from September 1 to February 28 (the season of maximum business activity),

2. The banks were required to hold 8 percent of these reserves in the form of liquid assets (cash and balances in other banks), 18 percent in Government of Ghana stocks, 5 percent in "special deposits" with the Bank of Ghana and the rest, that is, 23 percent in Government of Ghana treasury bills, approved agricultural and industrial loans, and other special balances with the Bank of Ghana.[55]

The following conclusions can be drawn from the above analysis.

One, by requiring banks to hold large quantities of Government debt paper behind all public deposits, the Government was guaranteed a source of finance and also making banks capable of absorbing large amounts of Government debt.

Two, monetary policy was called on to fill an essentially fiscal-policy role. When taxation failed to meet Government expenditure, money was easily created to fill the gap.

Three, the government thereby was able to collect much of the revenue from the implicit tax on money imposed by increases in the money stock.

Four, the government was also able to "pay off" existing debt by later inflation.

MONEY SUPPLY AND THE PRICE LEVEL

A rising money supply is not inconsistent with stable prices if real output is also increasing, at least at the same rate. The problem with Ghana is that money supply is increasing much more rapidly than real product.

Dr. Ewusi, in his monograph "The Determinants of Price Fluctuations in Ghana, 1955-1975." identified 10 causes of inflation in Ghana. Top of the list were, 1) Government deficit financing resulting from chronic budget deficits since the early sixties, 2) excess liquidity in the economy due to excessive expansion of money supply by the banking system, 3) wage and salary increases which not only increase demand for goods which were in acute shortage or non existent, but are also passed on to consumers by manufacturers saddled with higher wage bills and, 4) increased costs of production resulting from capacity underutilization and inefficiencies of manufacturing

TABLE VIII

GDP AND MONEY SUPPLY, 1959 - 1963

YEAR	1958	1959	1960	1961	1962	1963
GDP AT CONSTANT PRICES (1960)	382.0	433.0	469.0	477.0	492.0	502.0
ANNUAL INCREASE (%)	-	13.3	8.3	1.3	3.1	2.0
MONEY SUPPLY I	116.0	127.5	142.9	164.2	187.6	210.7
ANNUAL INCREASE (%)	-	7.2	12.1	15.5	16.5	15.6

SOURCES: 1. Figures for GDP are from Norris, _op_. _cit_., p. 104.

2. Figures for Money Supply are derived from Table V.

firms who pass on their high and unjustified overhead costs to the consumers.[56] In this section we only concentrate on the excessive liquidity generated by Government deficit finance operations.

Previous sections of this study have shown how Ghana's public finance has been one of chronic Government budget deficits since the early sixties, with only a brief and short-lived surplus in 1970/71 which resulted from a rise in cocoa prices on the world market. Deficit financing can be a useful tool of taxation, for a country with a low tax base due to low per capita income, if only the Government diverts the resources from the private sector for developing infrastructure or for capital investments which yield goods and services in the future. However, it should be noted that those uses receiving the diverted funds should be more productive than those uses from whom the funds were diverted. But the Government's budget deficits have been financed mainly through borrowing from the banking system and thereby depriving Ghana of this benefit of deficit financing.

The monetarist view that inflation is caused by "too much money chasing too few goods," is valid in Ghana, looking at available statistics, Table VIII. While money supply was rising at an annual percentage rate of over 12 percent, Gross Domestic Product (GDP) at constant prices, was rising at below nine percent. In 1959, GDP increased by 13.3 percent, while money supply increased by 7.2 percent. At the same time Consumer Price Index (CPI), (see Table X) rose by only 2.2 percent. The following year GDP rose by 8.3 percent,

TABLE IX

DOMESTIC PRICE INDICATORS 1956 - 75

YEAR	CONSUMER PRICE INDEX	GNP DEFLATOR	WHOLESALE PRICE INDEX	ACCRA RETAIL PRICE INDEX	ISSER COL INDEX
1956	78.7	92.0	na	107.1	61.1
1957	79.4	94.0	na	108.2	63.7
1958	79.4	100.0	na	108.0	65.8
1959	81.6	100.0	na	110.8	67.1
1960	82.4	100.0	na	111.7	69.3
1961	87.5	103.3	100.0	119.4	74.3
1962	95.6	105.4	102.8	129.9	82.1
1963	100.0	112.7	105.6	136.0	86.1
1964	112.2	124.0	113.9	152.6	89.9
1965	140.8	145.4	130.1	195.5	104.3
1966	148.2	161.9	131.0	204.5	111.1
1967	139.3	157.9	136.7	190.1	123.3
1968	153.2	181.1	162.9	208.1	135.6
1969	174.7	197.3	175.4	227.5	140.1
1970	188.5	213.6	190.8	222.5	146.3
1971	206.0	218.4	182.4	233.5	162.7
1972	226.0	247.6	216.3	255.6	205.8
1973	266.4	301.0	272.7	284.8	227.9
1974	315.8	375.6	347.5	363.4	273.1
1975	408.9	na	432.3	513.0	336.1
AVERAGE ANNUAL PERCENTAGE INCREASE					
1956-60	1.2	2.3	na	1.1	1.5
1960-64	7.6	5.3	6.4	7.6	6.6
1965-69	4.8	7.3	8.3	3.3	8.6
1970-74	13.1	15.0	16.7	19.6	21.8
1972-73	17.9	21.6	26.1	11.4	20.0
1973-74	18.5	24.8	27.4	27.6	39.8
1974-75	29.5	na	24.4	41.2	39.2

SOURCE: Ewusi, _op_. _cit_., p.4.

TABLE X

MONEY SUPPLY AND PRICES (1956-75)

YEAR	CONSUMER PRICE INDEX	ANNUAL PERCENTAGE CHANGE	MONEY SUPPLY	ANNUAL PERCENTAGE CHANGE
1956	78.7	-	90.9	-
1957	79.4	0.7	91.8	0.99
1958	79.4	0.0	90.1	-1.85
1959	81.6	2.2	96.6	7.21
1960	82.4	0.8	108.3	12.11
1961	87.5	5.1	125.1	15.51
1962	95.6	8.1	145.7	16.47
1963	100.0	4.4	161.3	10.71
1964	112.2	12.2	196.4	21.76
1965	140.8	28.6	241.2	22.81
1966	148.2	7.4	239.2	-0.82
1967	139.3	-8.9	240.3	0.46
1968	153.2	13.9	250.8	4.37
1969	174.7	21.5	261.4	4.23
1970	188.5	13.8	305.4	16.83
1971	206.0	17.5	-	-
1972	226.0	20.0	-	-
1973	266.4	40.4	563.8	84.61
1974	315.8	49.4	697.0	23.63
1975	408.9	93.1	1,008.8	44.73
		AVERAGE ANNUAL PERCENTAGE INCREASE		
1956-59	1.2	0.96	na	2.1
1960-63	7.6	4.60	6.4	13.70
1964-65	4.8	20.40	8.3	22.29
1966-67	13.1	-0.75	16.7	-0.18
1968-75	17.9	33.70	26.1	35.68

SOURCE: 1. Ewusi, op. cit., p.4.
2. Money Supply and Annual Percentage Changes are derived from Table VI, p. 53 and Table IX, p. 68.

money supply rose by 12.1 percent and CPI 0.8 percent. In 1961 GDP rose 1.3 percent, money supply, by 15.5 percent with CPI rising at a high of 5.1 percent. The following year GDP rose 3.1 percent, money supply by 16.5 percent and CPI rose at 4.4. percent.

From Table X we can identify at least five phases in the inflationary process in Ghana:

1. 1956-59. For this period prices rose at an average of less than four percent. For the same period money supply rose at an annual rate of less than 10 percent.

2. 1960-63. Prices rose a bit faster than the previous period, but it still was less than 10 percent. This was accompanied by an increase in the money supply. The money supply rose at an annual percentage rate of over 10 percent but under 20 percent.

3. 1964-65. This period saw a dramatic increase in the money supply. The annual rate was greater than 20 percent. This was accompanied by an inflationary rate of over 20 percent.

4. 1966-67. The money supply dropped dramatically to an annual average rate of -0.18 percent. This was also accompanied by a dramatic annual inflationary rate of -0.75 percent. A near zero increase in the money supply resulted in no increase in the level of prices.

5. 1968-75. This is a period of hyperinflation. The inflation rate rose at an annual average rate of over 33 percent. This was accompanied, as usual, by an increase in the money supply. Money supply rose at an annual average rate of over 35 percent. This period recorded an increase of 84.61 in the money supply, while the

inflationary rate recorded a high of 93.1 percentage rate.

The above analysis clearly shows that in Ghana the price level was closely related to the money supply over the period 1956 to 1975.

According to Irving Fisher one of the determinants of velocity of money is the degree of synchronization of receipts and expenditures. Households and business firms would hold little or no money if they were assured that a sufficient amount would be available at the time expenditures are anticipated. But receipts and expenditures are not perfectly synchronized. Receipts and payments are more unsynchronized in farming than nearly any other occupation. Consequently, according to Fisher, velocity would rise as the relative importance of agriculture falls and the economy becomes more industrialized.

Figure III shows that velocity rose from 1956 to 1959. For the next six years it showed a downward trend. It then continued an upward swing for the next two years. The figure clearly shows that for Ghana between 1956 and 1959 velocity fluctuated too much to be viewed as a constant or falling.

However, relative to the other economic variables, velocity showed the least amount of fluctuation. The percentage change in Consumer Price Index fluctuated between -8.9 percent and 93.1 percent for the period under discussion. The range for money supply was over 45 percent. While velocity fluctuated between -21.7 percent and 12.4 percent.

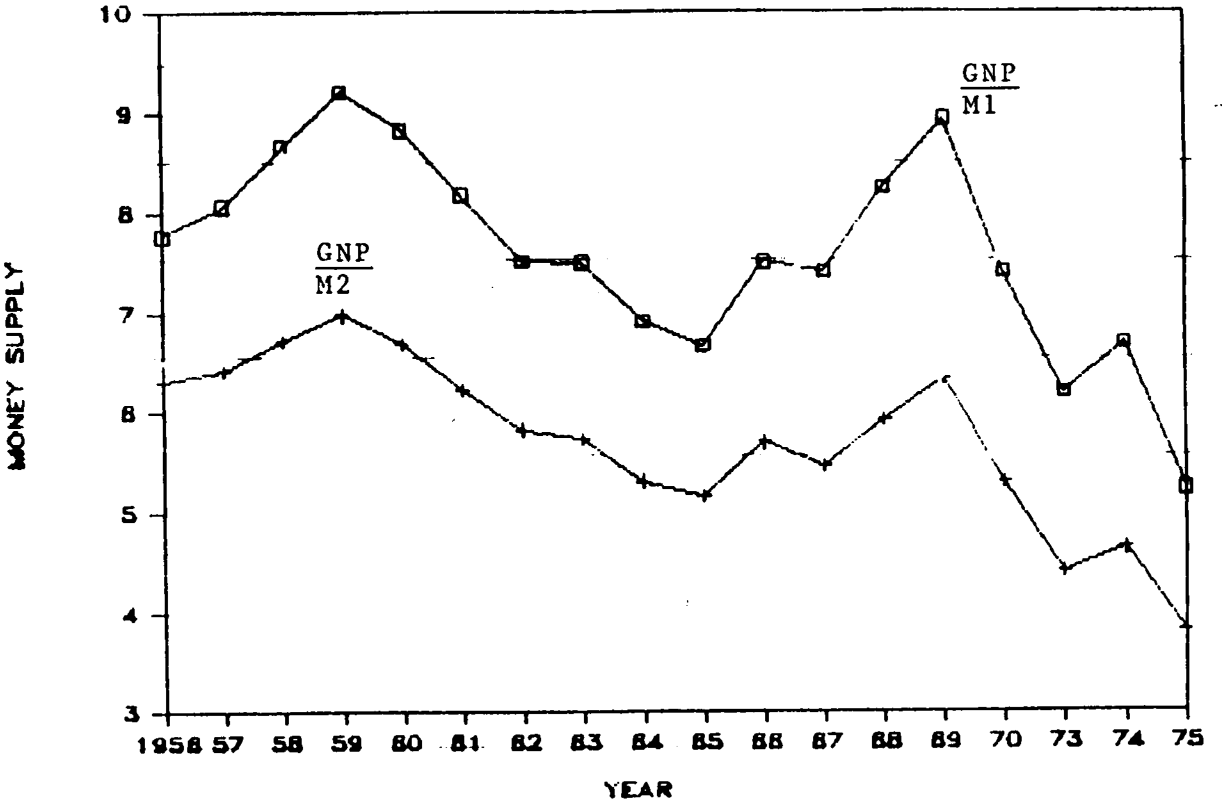


FIGURE III

VELOCITY OF MONEY, (ANNUALLY, 1956-75)

SOURCE: A WORLD BANK COUNTRY STUDY, op. cit., p. 34.

MONTHLY ECONOMIC BULLETIN OF GHANA, op. cit., p. 75

INTERNAL CREDIT MONETIZATION

The Ghanaian government budget deficits and their relationship to subsequent internal credit monetization can be examined by analysing the trends in bank credit to the government and the non-government sectors. To analyze the trend, the breakdown of net bank credit to the government, public institutions, the private sector and for cocoa financing is presented in Table XI. The table shows that the relative contributions of the government and non-government sectors to the total credit expansion continued to increase over the years. For the 3 years, 1958 to 1960 net credit to the government advanced by the Bank of Ghana fell from a negative £5,880,000 to a negative £45,240. It hit a positive £8,448,000 in 1961 and it has continued the upward swing since then. Credit to the goverment by the Commercial banks shows a somewhat different trend before 1961. The table shows that net credit to the government increased from a negative £4,345 to a negative £5,232 and hit a positive figure soon, that is £4,126,000 in 1960.

It is clear from the table that there is no direct and precise relationship between the level of deficit financing by the government and the expansion in bank credit to the private sector. The table shows that until 1965 credit to the private sector exceeded net lending to the government. For example, while net lending to the government by the banking system stood at a negative £398,000 in 1960, net lending to the private sector was a whopping £47.7 million. This

TABLE XI

ASSETS OF THE BANKING SYSTEM
(MILLIONS OF CEDIS)
1958-1982

YEAR	ASSETS (1+2+3+4+5)	NET CREDIT TO GOVERNMENT (1) (A+B)	BY BANKING SYSTEM A (I+II)	BY BANK OF GHANA I	BY COMMERCIAL BANKS II	NET USE OF IMF RESOURCES B	CREDIT TO PUBLIC INSTITUTION (2) (A+B)	BY BANK OF GHANA A	BY COMMERCIAL BANKS B	CREDIT FOR COCOA FINANCING (3) (A+B)	BY BANK OF GHANA A	BY COMMERCIAL BANKS B	CREDIT TO THE PRIVATE SECTOR (4) (A+B)	BY BANK OF GHANA A	BY COMMERCIAL BANKS B	OVERSEAS ASSETS (NET) (5) (A+B)	WITH BANKING SYSTEM A (I+II)	WITH BANK OF GHANA I	WITH COMMERCIAL BANKS II	NET USE OF IMF RESOURCES B
1958	120.6	-10.2	-10.2	-5.9	-4.4	-	-	-	-	-	-	-	21.7	-	21.7	109.1	109.1	74.6	34.5	-
1959	155.3	-10.2	-10.2	-5.2	-5.0	-	-	-	-	-	-	-	35.6	-	35.6	130.0	130.0	104.1	25.9	-
1960	192.0	-0.4	-0.4	-4.5	4.1	-	-	-	-	-	-	-	47.7	-	47.7	144.7	144.7	129.2	15.5	-
1961	200.9	19.5	19.5	8.5	11.0	-	-	-	-	-	-	-	65.2	-	65.2	116.3	116.3	108.8	7.5	-
1962	233.8	51.1	51.1	22.4	28.7	-	-	-	-	-	-	-	73.3	-	73.3	109.4	109.4	115.0	-5.6	-
1963	290.0	49.3	49.3	14.2	35.1	-	-	-	-	-	-	-	169.8	34.8	135.0	70.9	70.9	85.3	-14.4	-
1964	455.8	133.2	133.2	51.7	81.6	-	-	-	-	-	-	-	265.8	81.3	184.5	56.7	56.7	66.0	-9.3	-
1965	457.6	206.3	206.3	130.8	75.4	-	-	-	-	-	-	-	271.9	60.7	211.2	-20.6	-20.6	0.9	-21.5	-
1970	740.8	459.9	426.9	328.0	98.9	33.0	93.5	44.5	49.0	82.0	70.0	12.0	126.2	-	126.2	-20.8	26.7	44.7	-18.0	-47.5
1973	1309.7	607.0	622.6	555.0	67.6	-15.6	178.1	79.9	98.2	106.3	50.0	56.3	187.1	-	187.1	231.2	223.9	212.9	11.0	7.3
1974	1629.8	892.8	913.7	863.0	50.7	-20.9	275.1	128.3	146.8	183.5	130.0	53.5	256.2	-	256.2	22.2	8.4	21.4	-13.0	13.8
1975	2306.2	1507.5	1533.3	1432.4	100.9	-25.8	190.2	78.1	112.1	185.0	85.0	100.0	290.0	-	290.0	133.5	187.2	191.5	-4.3	-53.7
1976	3492.4	2541.8	2631.8	2462.4	169.4	-90.0	219.6	80.8	138.8	255.4	105.0	150.4	380.5	-	380.5	95.1	76.0	83.2	-7.2	19.1
1977	5529.3	4335.3	4427.0	4087.9	339.1	-91.7	240.8	81.0	159.8	270.6	90.0	180.6	552.6	-	552.6	130.0	110.9	120.4	-9.5	19.1
1978	6843.8	4522.5	4473.9	4087.9	386.0	48.6	390.6	153.2	237.4	820.7	560.0	260.7	725.4	-	725.4	384.6	406.6	420.2	-13.6	-22.0
1979	8599.1	5108.5	4808.0	4101.1	706.9	300.5	373.6	157.2	216.4	1340.0	1016.0	324.0	796.0	-	796.0	981.0	564.6	592.5	-27.9	416.4
1980	9962.1	6940.4	6522.2	5452.9	1069.3	418.2	582.4	196.9	385.5	1559.0	1328.6	230.4	939.6	-	939.6	-59.3	475.6	531.8	-56.2	-534.9
1981	15393.0	10949.6	10499.1	8811.5	1687.6	450.5	590.7	175.2	415.5	2949.7	2162.6	787.1	1341.6	-	1341.6	-438.6	16.9	152.5	-135.6	-455.5
1982	19929.9	11341.1	10942.8	8183.9	2758.9	398.3	707.6	205.8	501.8	6552.9	4937.1	1615.8	1557.4	-	1557.4	-229.1	172.4	327.5	-155.1	-401.5

SOURCES: 1. A WORLD BANK COUNTRY STUDY, GHANA: POLICIES AND PROGRAMS FOR ADJUSTMENT 1984.
2. MONTHLY ECONOMIC BULLETIN OF GHANA, MARCH 1970, p.75, TABLE H-3.

tenuous relationship between the two magnitudes confirms the widely held view that, even though government deficit finance operations tend to increase the capacity of the banking system to create additional credit when new reserves are created to finance the debt, we should not automatically expect the volume of bank credit to the private sector to increase (decrease) with an increase (decrease) in the level of government net borrowing from the banking system.

The significant increases in bank lending to the private sector after independence was attributable to flourishing commercial activities. There was hardly any restrictions on imports, before 1962. Under the impetus of growing nominal consumer demand the level of imports rose rapidly, resulting in an increase in the demand for bank loans. Credit to the private sector continued to increase, even after the imposition of import restrictions in December of 1961, partly because of the increased involvement of the commercial banks in cocoa financing as a result of the introduction of the internal cocoa bill scheme.

It is also a noteworthy fact that, whereas before 1963, the commercial banks were the sole source of credit to the private sector, by 1965 the Bank of Ghana was directly contributing almost one-third of the total credit to the private sector. The change in the source of credit to the private sector was due to two factors: one, the increased burden of cocoa financing on the Bank of Ghana; two, the involvement of the Central bank in financing current operations of certain state enterprises. It is important to compare the methods of cocoa financing before and after the introduction of the cocoa bill to understand its effect on the operations of the Bank of Ghana.

Before the introduction of the bill, the Bank's role in cocoa financing was to convert the foreign securities surrendered by the Cocoa Marketing Board (CMB) into local currency and to transmit these funds to the CMB through the commercial banks. The foreign securities thus acquired were used by the Issue Department of the Bank of Ghana as currency cover. This means that before the introduction of the cocoa bill, and as required by the 1957 Ordinance setting up the Bank of Ghana, the increase in local currency for cocoa financing was directly linked to and was fully backed by the accumulation of foreign assets by the Bank of Ghana. And because the Ordinance establishing the Bank of Ghana kept the Banking and Issue Departments separate, the Bank's contribution to cocoa finance was not reflected in the credit operations of the Banking Department.[57]

In May 1963, the 1957 Ordinance was replaced by a new law, the Bank of Ghana Act, 1963, against the backdrop of the increasing inability of the CMB to surrender sufficient foreign reserves in lieu of local currency. In part this was due to its increased lending to the government plus the downward trend in world cocoa price. Also there was an increasing demand for funds to finance the expanding cocoa industry. Some of the salient features of the Act which directly relates to this study include the following: First, the strict separation between the Issue and the Banking Departments were removed. This meant that the Bank's contributions to cocoa finance would, from then on, be reflected in the credit operations of the Banking Department. Second, the currency cover was redefined to include Ghana government treasury bills and securities, commercial bills of exchange, and certain categories of securities of other governments. Third, the Act provided for a fiduciary issue of up to 40 percent of currency in circulation, which at the discretion of the Minister of Finance could be raised to a maximum of 60 percent. According to Naseem, by 1965 the ratio of government securities and other bills held as currency cover to currency in circulation had risen to 72 percent. In September 1963, the foreign assets of all the official institutions including the CMB were centralized with the Bank of Ghana.[58]

A major implication of the cocoa bill was that it absolved the CMB from acquiring local currency in lieu of foreign reserves. The CMB could now finance its purchases of cocoa from domestic producers by borrowing from the banking system using cocoa as a collateral. Technically, this meant that the CMB could use its future foreign exchange receipts as collateral, instead of drawing upon its current foreign exchange balances. This added more flexibility to the monetary system, and the hitherto more or less automatic link between the supply of currency and availability of foreign exchange reserves was broken. The introduction of the cocoa bill, which together with the government treasury bills and stocks could be used by the Bank of Ghana to create fiduciary issue, and which are rediscountable meant that the acquisition of these local earning assets by the commercial banks increases the scope for credit and monetary expansion.

It should be noted that, the cocoa bill increased the scope for credit and monetary expansion, but this should not be the case since these bills were short term loans which will be fully repaid when the CMB receives the proceeds from cocoa exports. Yet, the introduction of the bill caused an expansion in bank lending to the CMB. This situation is explained by the following reasons. One, due to a falling world cocoa price and with a fixed domestic producer price, the CMB found itself paying more for cocoa than it was able to receive by selling it. Second, the cocoa hold-up by the government during the bumper cocoa crop in 1964/65 season, caused the volume of the cocoa bills to increase to an unprecedented level, since there was no revenue coming in for the CMB it was forced to finance its cocoa purchases by relying on the cocoa bill. The lifting of the ban also caused a further decline in the world prices, resulting in the reduction of CMB revenue. The combined effect of all these development meant that the cocoa bill became an important source of expansion in the money supply after 1963.

INCREASE IN LESS-LIQUID ASSETS

Table VI shows a continuous increase in less-liquid deposits (includes Post Office and Building Society deposits, commercial banks time and savings deposits), from 1956 to 1982. The total volume of less-liquid assets increased uninterruptedly from £21.2 million in

1956 to £3632.5 million in 1982. According to Naseem, the increase in these deposits absorbed 18 percent of the total gross credit creation during 1960 to 1965.[59] Table XII shows that the ratio of less-liquid deposits with the commercial banks to money supply increased from 20 percent in 1959 to 27 percent in 1963 and reached a peak of 32 percent in 1965. During the same period the ratio of demand deposits to less-liquid deposits with the commercial banks increased from 48 percent to 65 percent.

The increase in the volume of less-liquid deposits after 1964 was due, in part to the fact that the importers were required, from April 1964 to open letters of credit against these imports. The table clearly shows that despite the drop in the value of money, the accumulation of less-liquid deposits remained an important offset to the total credit creation.

CHANGES IN THE MONETARY RATIOS

Changes in the monetary ratios; gross domestic expenditure to total money, total monetary base to total money, and commercial banks cash reserves ratio to total deposits, have major implications on the monetary developments in the country.

Table XII shows that gross domestic expenditure to total money ratio increased from 6.21 in 1956 to 6.93 in 1959, fell to 6.59 and continued a downward trend until 1965 when it was 4.91. It increased to 5.12 the following year and then continued an up and down movement

TABLE XII

MONETARY RATIOS
(1956-1969)

YEAR	TOTAL MONEY BASE TO TOTAL MONEY	RATIO OF RESERVES TO DEPOSITS (R/D)	RATIO OF CURRENCY TO DEPOSITS (C/D)	GDP TO TOTAL MONEY (GDP/M)	COMMERCIAL BANKS CASH RESERVES RATIO TO TOTAL DEPS OF COMMERCIAL BANKS	LESS-LIQUID DEPOSITS TO MONEY SUPPLY	LESS-LIQUID DEPOSITS TO MONEY SUPPLY
1956	56.29	-	1.75	6.22	13.44	-	-
1957	56.50	0.22	1.68	6.33	16.10	-	-
1958	53.53	0.33	1.37	6.70	18.37	-	-
1959	56.39	0.44	1.40	6.93	26.01	20.00	48.00
1960	50.59	0.46	1.39	6.60	13.60	21.00	50.00
1961	48.66	0.22	1.32	6.14	10.59	22.00	51.00
1962	48.88	0.33	1.14	5.71	14.33	24.00	56.00
1963	42.76	0.16	0.97	5.55	8.77	27.00	56.00
1964	44.55	0.43	0.97	5.17	11.62	30.00	63.00
1965	44.03	0.32	0.92	4.91	11.80	32.00	65.00
1966	43.45	0.48	0.76	5.21	16.68	-	-
1967	40.30	0.44	0.62	4.89	17.73	-	-
1968	42.79	0.40	0.68	5.27	20.33	-	-
1969	46.55	0.62	0.71	5.61	25.28	-	-

SOURCES: 1. NASEEM op. cit., p. 65
2. MONTHLY ECONOMIC BULLETIN OF GHANA, MARCH 1970, p.75, TABLE H-3.

thereafter. There was a continuous decline in the importance of the currency component in the money supply, as it fell from 51.6 percent in 1956 to 44 percent in 1960, and by 1969 has reached 29.5 percent. In what follows an attempt will be made to analyze the causes for the changes in the monetary ratios in Ghana.

A secular rise in money-income ratio is generally attributed to the following structural changes which an economy in its early stages may undergo through; (a) a decline in the relative importance of the non-monetary sector, (b) net addition to money hoards (c) an increase in the demand for money for transactions purposes more than proportionate to national income. For a developing country like Ghana, the non-monetary sector declines in importance, partly because under the influence of wages and price incentives the existing non-monetized sector gradually loses ground. The other reason for the decline is that the monetized sector, which includes the dynamic sector of industry, grows faster than the non-monetized, mainly, rural sector. One important implication of this increase in the importance of the monetized sector is that money is now required to perform an additional task of financing transactions which were previously taking place without it. The pre-eminence of the monetary sector as the economy grows means that the stock of money has to grow at a much faster rate than the rise in the national income. Consequently, the national income-money ratio in a developing country shows a marked downward trend.

It will be safe to say that, the process of economic development in Ghana has led to a gradual decline in the absolute size as well as the relative share of the non-monetized sector. The degree of monetization is reflected by the degree of urbanization and the expansion of commercial banks. Although, we do not have a precise estimate of the changes in the relative shares of the monetized and non-monetized sectors, a rough idea of the impact which this structural change might have had on the money supply can be obtained from increases in the money supply and changes in the monetary ratios.

Naseem has shown that, there has been an "increase in the demand for working balances so that the money supply in the economy had to increase at a faster rate than the money national income."[60] We see a fall in the currency to total money ratio over the years. This is explained, according to Naseem, by increases in hoarding activities. The cocoa farmer, the mainstay of the Ghanaian economy, may hoard a part of his receipts as a safeguard against failure of the next crop. Also due to increases in his income, by reason of the increases in the internal price of cocoa, the cocoa farmer may increase his demand for money and money hoards. For the Urban dweller and pretty trader, he may hoard so as to evade paying higher or no taxes.

Table XII shows that the reserve-deposit ratio did not show any predictable pattern. In 1957 the ratio was 0.22, increased to 0.46 in 1960, but fell to 0.22 the following year. It rose to 0.33 in 1962 and then fell again to 0.16 in 1964. No reason was found for this erratic behavior of this ratio.

Theory and evidence suggests that, for constant values of interest rates and the level of economic activity, the public desires to hold money in relatively fixed proportions as between currency and spendable deposits and that it desires to hold deposits in relatively fixed proportions between spendable and nonspendable deposits. Table XII shows that for the period 1956-73, this ratio showed a downward trend. For example, in 1956 this ratio was 1.75, but declined to 1.14 in 1962, by 1973 it has reached an all time low of 0.77. This is explained by the fact that as Ghana became more affluent there were relatively more transactions requiring payment by check and by wire transfers of deposits than payment in currency. This also supports the theory that, income elasticity of demand is greater for checking accounts than for currency.[61]

The ratio again started to increase after 1973. Table XII shows that this ratio increased to 0.93 in 1974 and continued the upward swing and almost reached the level attained in 1957. Maybe Alan Hess' theory was applicable here. According to Hess, the currency ratio varies inversely with national income during the early part of business expansion, but as the expansion proceeds the currency ratio reverses course and varies directly with income. This is due, Hess contends, to a concentration of large-size, investment-type payments in the early stage of an expansion and a concentration of small-size, consumption-type payments in the later stages of an expansion. According to Hess, larger payments are more cheaply made with spendable deposits and smaller payments with currency. Thus, in the early stages of an expansion, the demand for spendable deposits grows faster than the demand for currency, but in the later stages, the demand for currency grows faster than the demand for spendable deposits. We saw earlier on how the government embarked upon an industrialization progran which involved the country in large-size, investment-type payments. But by 1968, there was a slow down of the induatrialization drive as the government run down its foreign reserves.[62]

CHAPTER SIX

SUMMARY AND CONCLUSION

This chapter tries to give a summary of the findings of the study, attempt some solutions to the problem and conclude with a suggestions for further studies.

OBSERVATIONS

The study found out that there is a close connection between deficit financing, changes in the stock of money and changes in prices, and that in Ghana inflation has essentially been a monetary phenomenon.

If the government deficit finance operations distributed income in favor of the peasants through higher prices for agricultural products than for other goods and services, then the deficit induced inflation may increase the voluntary savings of the peasants, who have been shown to possess higher propensity to save, and the total savings of the economy. But as it is, inflation resulting from deficit financed economic development makes itself felt much more rapidly and intensely on the goods the farmers buy than on those they sell. This means a redistribution of income away from the farmers.[63] The farmers may attempt to save by reducing consumption, or the savings may take a dangerous form, which in the case of Ghana, we believe happened or is happening, that is, postponing of repairs on their houses, and farm buildings and skimping in the care of their land and animals, reflected in part by the reduction of national output. According to the World Bank country study in 1984, the domestic savings rate has fallen from 12 percent to about 3 percent. This is also reflected, in part by the rate of growth of the economy. Between 1960 and 1970 the growth rate was 2.1 percent per annum. It fell to 0.2 percent and is growing at -6.1 percent in 1984.[64]

The farmer who has been the recent recipient of an economic development effort in the form of new machinery, improved irrigation system and new land improvement scheme, in a bid to save may end up causing a rapid deterioration to these new investment. The disinvestment can easily and rapidly become a multiple of the savings the farmer is trying to avoid. It is commonly assumed that the very high ratio of the rate of depreciation on new farm equipment in Ghana and other developing countries results from ignorance as to proper maintenance, but it is also probable that the result of attempts by the farmers to avoid or offset savings being forced on them by the government deficit finance induced inflation. The fall in total output may be due in part to the fact that the farmers, who need more of such things as fertilizers, better seeds, and possibly more equipment find them difficult to obtain as prices move against them, and so the deficit finance induced inflation also work against reducing output, not increasing output by farmers caught in the price squeeze.

We are not saying deficit financing is bad, per se, in fact it could be the way for a developing country like Ghana, if deficit financing could be restrained to amounts less than or equal to the increase in productivity each year, and if it is restricted to areas where returns are high and which have a large output-capital ratio. Projects that come to mind include things like pest control, seed improvement, improved animal care, community projects, and cottage industries. In fact this study has shown that before independence government budget deficits were financed out of surplus balances. It was the policy of the government then to invest scarce resources on projects that yielded a return sufficient to cover both recurrent and capital costs by an early date.

An inevitable result of the monetary expansion embarked on by the country is inflation. The result is that the economic and psychological point is reached where people just lose confidence in the future value of the monetary unit. This point, probably, have been reached in Ghana, looking at the rate at which people are willing to exchange the cedi for hard currencies like the dollar and pound sterling at the black market.

Despite the impressive array of instruments at the disposal of the Bank of Ghana, and the seemingly wide range of tasks that it might perform, the Central Bank has been restricted in role, scope, and effectiveness in view of the many institutional obstacles faced. Even in the developed countries, central banks are subject to various restrictions, in the case of Ghana, this is many times greater. Besides fiscal policy, which needs to be so closely coordinated with monetary policy, it is itself subjected to special limitations that are inherent in the system.

An observation which Killick has earlier made note of in his book, Development Economics in Action, and which was found to be surprisingly true, is poor coordination of fiscal, monetary, and balance of payments policies, which have characterized the economy since 1960. He noted that fiscal and monetary policies were formulated for different twelve-monthly periods, (there have been a constant switch from January to May and June to May twelve-monthly periods), each being formulated at different times. Thus even when the whole thrust of government economic policy was upon improved short-term management, those defects of previous years could not be eliminated.[65]

The monetary and fiscal policies of Ghana seems to have been determined mainly by political expediencies, rather than economic considerations. In the colonial times, their experience in America, that is, 'no taxation, without representation', prevented the government from raising much needed revenue through taxes. In fact Kay (1973) tells us "the colonial government freely admitted that taxation in the colony was low; in fact it made the point quite forcibly at the beginning of the twenties in response to strong pressure locally, when the cry of 'over-taxation' was widely heard throughout the colony."[66] After independence, Nkrumah thought "independence will be meaningless, unless it was used to obtain ... financial self government.", so that his government embarked on an expansionary monetary policy that left the government almost bankrupt by 1966.

To conclude we would like to quote Tony Killick. He wrote "The frequently large gap in Ghana between the theoretical merits and practical achievements of a given policy is a universal tendency, deriving from a failure to recognize limitations on governmental power." The government of Ghana failed to recognize that "there is more to development than getting policies right."[67]

IMPLICATIONS FOR PUBLIC POLICY

In order to inject some measure of stability and constraint, and to assure the economy of an appropriate growth in the money supply, we will recommend that the government go back to some form of monetary standard. Tony Killick tell us that "It seems that for Ghana neo-colonialism is a paper tiger, and that the large role of foreign capital in the Ivory Coast result from an historical experience which Ghana could not reproduce even in the unlikely event that she should wish to." He continued, "... Ghana has little choice but to depend essentially upon her own resources."[68] In the absence of adequate foreign capital, an introduction of some form of a monetary standard, preferably a gold standard, will, we believe, put some level of stability into the economy, in the process limiting the government to live within its means. Two other possible solutiions are:

1. the government can reduce budgetary deficits and thus the need for expanded bank credit to the Government, and

2. The government should allow the market to allocate resources

since it has proven incapable of such task.

Past experience has shown the Government to be less efficient in the use of scarce resources. I would therefore like to see the Government reduce its expenditures rather than increase taxes in order to balance its budget.

The policies after independence were not optimal means of promoting nationhood and economic independence. On balance, the government's policies advanced independence in the sense of providing greater Ghanaian control over the economy, but in principle dependence was increased. The government's industrial policies created an inefficient manufacturing sector heavily dependent on foreign supplies, and neglect of exports forced the country to depend on foreign credits. Improved policies in these areas would have been good both for the country's economic development and its independence.[69]

The best way to end inflation in Ghana would be for the Government to adopt a rule to limit the rate of growth in the money stock to a fixed and manageable proportions each year. It was found out that the Ghanaian market left to itself can select the best use of resources more efficiently than can the Government.

Past experience have shown our politician, bureaucrats and in fact our leaders are like those in other countries because they are self-serving, acting to maximize their own welfare rather than that of the country. I therefore believe that they should be constrained and limited. Another reason why I believe the Government should be constrained is the fact that discretionary fiscal and monetary policies contain long and variable lags which, coupled with instability in Government, results in protracted economic instability.[70]

TOPICS FOR FURTHER RESEARCH

Devaluation seems to be the usual recommendation for countries facing balance of payments problem. However, the International Monetary Fund (IMF) has made it clear that it will pay due regard to their social, political, and economic priorities and objetives as well as to their particular circumstances. In view of the particular circumstances of Ghana, and the IMF's stated stand as seen above, the researcher wonders if in fact the IMF pays due regard to the particular circumstances of Ghana whenever she goes to the IMF for assistance. Ghana has had no less than 7 major devaluations in its short history as a nation without any major change in its balance of payments problem.

It has been asserted that both the aggregate demand and aggregate supply effects of a devaluation work toward reducing the excess demand in the economy and the current account deficit. Whether total output rises or falls during this process obviously depends on whether the contractionary effects on aggregate domestic demand are outweighed by the supply. This depends, among other things, on the relative size of the price elasticities of imports and also on the relative shares of tradable and non-tradable goods in the total production. In general, output will decline if the trade elasticities are small and the structure of production is weighted more toward tradables than non-tradables. It will be useful to examine why, with all these devaluations demand has been so strong. Maybe the devaluations were not sufficiently weighed against the government's deficit finance operations, a measure of the trade elasticities will therefore be useful. These measures will help determine how much to, or not to devalue. An inquiry into whether the Marshall-lerner conditions for devaluation to be successful holds for Ghana, and therefore a justification for IMF's prescription for Ghana's problem, will certainly be admired by the researcher.

The study has shown how the Ghana government, in its hurry to increase economic growth embarked on expenditures far in excess of its revenue. Given the low level of savings, and an inadequate tax system, the use of domestic credit creation may have two possible effect on the demand. One, some of the additional expenditure is likely to be directed toward domestic goods and sevices, thus increasing money income in the country. If there is sufficient excess capacity and demand is directed toward the output of the industries that have excess capacity, the increase in money income may represent mainly, or even entirely, an increase in real income, prices rising little or not at all. If there is no spare capacity, the rise in money income will be reflected in higher prices. Two, part of the additional income will be spend on imports, stimulated by the higher real income or by the rise in prices in the country as against the price level abroad.

Thus, when the rate of domestic credit creation outpaces the real growth or capacity expansion, as shown by this study on Ghana, two adverse consequences - inflation and balance of payments problem - may be expected. Whether the two effects occur simultaneously, or whether in one case the control of domestic prices is effective enough to throw the burden of adjustment entirely on imports, or whether in the other case, import control is stringent enough to restrict the effect of credit creation to a rise in the level of domestic prices, is an empirical question, which the researcher will like answered.

NOTES

[1] Jacob K. Atta, A Macroeconomic Model of a Developing Economy - Ghana, (New York : John Wiley & Sons March 1978), p. 11.

[2] Kodwo Ewusi, The Economy of Ghana, (Accra : Ghana Publishing Corp., May 1984), p. 15.

[3] Jan S. Hogendorn and Henry A. Gemery, "Cash Cropping, Currency Acquisition and Seigniorage in West Africa : 1923-1950," African Economic History, No.11 (1982), p. 16.

[4] G. L. M. Clauson, "The British Colonial Currency System," The Economic Journal, No.213, Vol.Liv. (April 1944), p. 11.

[5] Ahmad Naseem, Deficit Financing, Inflation and Capital Formation, (New York : McGraw Hill 1968), pp. 25-26.

[6] Naseem, op. cit., p. 27.

[7] Naseem, loc. cit.

[8] Dwayne Wrightsman, Monetary Theory and Policy, Third Edition, (New york : The Free Press 1971), pp. 66-67.

[9] Note that government borrowing from the commercial banks may not have any net money creating effect if :

a) The commercial banks are without any excess 'primary' reserves, i.e., their cash balances and deposits with the central bank do not exceed the customary or legal reserves requirements.

b) Government borrowing from the commercial banks does not lead to an increase in their liquid asset.

c) The central bank is either unwilling or unable to accomodate the commercial banks against the collateral of their holdings of government securities.

[10] J. Graham-Smith, Ghana's Economic Objectives and Performance: 1957-1966, (Nairobi: Institute for Development Studies, University College Febraury 1968), p. 32.

[11] N. A. Cox-George, Studies in Finance and Development: The Gold Coast (Ghana) Experience, (London: Dobson Books Limited 1973), p. 202.

[12] Naseem, op. cit., p. 42.

[13] Cox-George, op. cit., p. 203.

[14] Naseem, op. cit., p. 43.

[15] Naseem, op. cit., p. 44.

[16] Margaret Priestley, Ghana's Financial Bureaucracy: A Historical Approach, (Accra: Ghana Universities Press 1976), pp. 6-7.

[17] E. K. Hawkins, "The Growth of a Money Economy in Nigeria and Ghana," The Oxford Economic Papers, Vol. 10 No. 3, (October, 1958), p. 345.

[18] Hawkins, op. cit., p. 344.

[19] Clauson, op. cit., p. 2.

[20] Clauson, op. cit., p. 3.

[21] Clauson, op. cit., p. 5.

[22] Clauson, op. cit., p. 3.

[23] Clauson, op. cit., p.5.

[24] The Board would be used throughout the paper to mean the West African Currency Board.

[25] Clauson, op. cit., p. 5

[26] Theoretically, the West Africa currency was defined to be at par with the British pound sterling. But to convert from the West African currency to the British currency, there was a commission charged. This means that the West African currency was in practice, of a lesser value in terms of the British currency.

[27] Siegfried B. Y. Ayatey, Central Banking, International Law and Economic Development : Studies on West Africa, (London : Macmillan 1960), pp. 15.

[28] Ayatey, loc. cit.

[29] Clauson, op. cit., p. 11.

[30] Clauson, op. cit., p. 7.

[31] Hogendorn and Gemery, op. cit., p. 17.

[32] Hawkins, p. 342.

[33] Hogendorn and Gemery, op. cit., p. 17.

[34] G. B. Kay, The Political Economy of Colonialism in Ghana: A Collection of Documents and Statistics 1900-1960, (London: Cambridge University Press 1972), p. 125-126.

[35] Kay, op. cit., pp. 126-126.

[36] See Kay's discussion of government finance on p. 31.

[37] Ayatey, op. cit., p. 17.

[18] See Ayatey's discussion of the functions of the Bank of Ghana pages 17-19.

[39] Monetary measures included the use of open market operations, discount rate, reserve requirements and special deposits.

[40] Ayatey, op. cit., pp. 17-19.

[41] Ayatey, op. cit., pp. 16-17.

[42] Ayatey, op. cit., p. 21.

[43] Graham-Smith, op. cit., pp. 18-19.

[44] Robert W. Norris, "On Inflation in Ghana." in Financing African Development, Tom J. Farer, ed., p. 95.

[45] Norris, op. cit., p. 101.

[46] Ayatey, op. cit., p. 21.

[47] Naseem, op. cit., p. 62.

[48] Special Deposits are required by the Bank of Ghana mainly from importers and commercial banks. When importers receive their Import Licences they are required to make special deposits at the Bank of Ghana. These deposits are the cedi equivalent of cost of importing goods. The Bank of Ghana uses these deposits to pay the foreign suppliers normally in foreign currency. The Bnak of Ghana also sometimes require commercial banks to hold special deposits at the Bank of Ghana. For example, commercial banks were required to keep 5 percent of their reserves in a special deposit with the Bank of Ghana according to the Bank of Ghana measures announced on April 17, 1964.

[49] Standard Bank of Ghana, Annual Economic Review of Ghana, 1967, p. 6.

[50] A World Bank Country Study, Ghana: Policies and Programs for Adjustment 1984, Published in Washington DC.

[51] George B. N. Ayittey, The Effective Capacity to Save: An Alternative Approach to Development, Unpublished PhD Dissertation, University of Manitoba, Winnipeg, Canada, 1981. p. 187.

[52] Norris, op. cit., p. 100.

[53] Standard Bank of Ghana, op. cit., p. 6.

[54] Standard Bank of Ghana, op. cit., p. 7.

[55] Norris, op. cit., p. 102.

[56] Kodwo Ewusi, The Determinants of Price Fluctuations in Ghana, 1955-75, Discussion Paper No. 2, Institute of Statistical, Social and Economic Research, University of Ghana, Legon, December 1977, p. 24.

[57] Naseem, op. cit., p. 62.

[58] Naseem, op. cit., p. 69.

[59] Naseem, op. cit., p. 65.

[60] Naseem, op. cit., p. 69.

[61] Wrightsman, op. cit., p. 65.

[62] Wrightsman, op. cit., pp. 68-69.

[63] Gardner Patterson, "Impact of Deficit Financing in Under-developed Countries: Sometimes Neglected Aspects," Journal of Finance, Vol.XII No.2, (May 1957), p. 183.

[64] A World Bank Country Study, Ghana: Policies and Programs for Adjustment, Washington D. C. 1984, p. 3.

[65] Tony Killick, Development Economics in Action, (London: Cambridge University Press 1972), p. 305.

[66] Kay, op. cit., pp. 27-28.

[67] Killick, op. cit., p. 355.

[68] Killick, op. cit., p. 330.

[69] Killick, loc. cit.

[70] Sherman J. Maisel, Macroeconomics: Theories and Policies, (New York: W. W. Norton & Company 1982), pp. 674-75.

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APPENDIX A

A GUIDE TO THE HISTORY OF GHANA'S CURRENCY

1. Until 1965 Ghana's currency was the Ghana pound (G), with shillings and pennies as minor units. 20 shillings = 1 £G, and 12 pennies = 1 shillings. The £G exchanged at par with the British pound sterling and at £G1 = US$2.80.

2. On 19 July 1965 the currency was decimalized to equal 100 old pennies. The new unit was called the cedi (¢). No alteration of the true external exchange rate was involved and the new unit exchanged at ¢1.00 = $1.17.

3. On 23 February 1967 the currency was again decimalized, this time to be equivalent to ten old shillings, or G0.5. The unit of currency became the New Cedi (N¢) and was exchanged for the 'old' Cedi at N¢1.00 = ¢1.20. There was a pro rata change in the external exchange rate so that the effective foreign exchange rate of the currency remained the same. The exchange rate against the dollar therefore became N¢1.00 = $1.40. On 19 February 1972 the appellation 'New' was dropped from the official name of the currency unit, which is once called the cedi (¢). The cedi is made up of 100 pesewas (p).

4. On 8 July 1967 the external value of the cedi was devalued to ¢1.00 = $0.98.

5. On 27 December 1971 the external value of the cedi was again devalued to ¢1.00 = $0.55.

6. Following a military coup d'etat, the external value was revalued on 7 February 1972 to stand at ¢1.00 = $0.78, or $1.00 = ¢1.28.

7. The cedi was again revalued in 1973 to stand at ¢1.00 = $0.87.

8. On March 9, 1979, the government announced a currency reform programme to reduce excessive cash holdings and to cut off illegal holding of the old cedi notes. The reform entailed the exchange of the old cedis for new ones, at a discount of 30 percent for amounts up to ¢5000 and 50 percent for amounts in excess of ¢5000.

9. Currently, that is, by June 30, 1986, the foreign exchange rate of the cedi to the dollar is ¢90.00 = $1.00.

APPENDIX B

1. Lack of data made some of the analysis incomplete since we were unable to substantiate some of our claims.

2. The annual reports of the Bank of Ghana, though published regularly and fairly on time since 1960, suffer from lack of uniformity in the coverage and presentation of data. Furthermore, monetary data obtainable from these reports are not always consistent. Quite frequently, different issues of the annual reports give different figures for the same item; and what is even worse, at times different tables in the same issue show markedly different figures for the same item. The explanation for some of these are use of different concepts, but some of these inconsistencies are difficult to find.

3. Another serious difficulty arose out of the fact that the Official publications include only rudimentary monetary data for before 1961. Attempts to dig out certain details (for example, end of the months' figures for money supply, bank lending to the governemnt and non-government sectors and less-liquid deposits with the commercial banks) from the worksheets of the Bank of Ghana were only partially successful. The worksheets of the Bank of Ghana for the period before 1961 have not yet been fully revised and rearranged to conform to the published data available for the ensuing years.

4. There were frequent and serious printing errors encountered in the published data.

5. Details may not always add exactly to totals because of rounding error and differing sources.

6. Frequent changes of twelve-month periods made the task of calculating the annual averages for figures of certain items rather irksome.

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