MONETARY POLICY TRENDS IN LIBYA, 1956-1963

By

NURI ABDUSSALAM BARYUN

Bachelor of Science (Commerce)
Ain Shams University
Cairo, Egypt
1961

Submitted to the faculty of the Graduate School of
the Oklahoma State University
in partial fulfillment of the requirements
for the degree of
MASTER OF SCIENCE
May, 1965

MONETARY POLICY TRENDS IN LIBYA,

1956-1963

Thesis Approved:

Frank S. Steindl
Thesis Adviser

A. H. Trenton

J. H. Boggs
Dean of the Graduate School

PREFACE

This study deals with monetary policy in Libya. The purpose of the study is to investigate the tools of monetary policy which were employed in Libya during the period 1956-63, and to show the trends of monetary policy. The major purpose of investigating the tools of monetary policy in Libya is to acquire a better understanding of the operation of these tools in order to achieve the national economic goals of Libya. These objectives are a high rate of growth, a stable price level, and a low rate of unemployment.

The analysis of this study depends primarily upon the monetary statistics published by the Economic Research Department of the Bank of Libya. Some of the difficulties which were encountered in this study were the lack of adequate statistical analysis, and the lack of studies conducted on Libyan monetary policy.

The author wishes to acknowledge the debt of gratitude which he owes to Dr. F. G. Steindl, and Dr. R. W. Trenton. Indebtedness is acknowledged for their valuable guidance and for their helpful suggestions, particularly to Dr. F. G. Steindl who is the special adviser to this thesis.

Indebtedness is also acknowledged to the following for their assistance in providing the author the statistics and information used in this study:

Economic Research Department of the Bank of Libya, Mr. K. M. Sherlala who is Acting Director of the Economic Research Department of the Bank of Libya, Mr. Yousif A. Ezmerli, the Economic Officer in the Economic Research Department of the Bank of Libya, Mr. M. El-ezzi, graduate student in Engineering for his assistance in drawing graphs, Mrs. Juanita Marshall who typed the final copy, and Mrs. Irene Combs of the English Department for reading this thesis.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Before 1956 there was no central banking in Libya. Thus there was no monetary policy about which one can meaningfully speak. In 1956, the Central Bank of Libya was established, but in fact, during the first few years of its life, it functioned primarily as a commercial rather than a central bank. The banking law of 1958 enabled the Central Bank only to apply reserve requirements against deposits. With the banking law of 1963, the Central Bank was enabled to exercise the traditional tools of monetary policy which are found in most advanced countries such as the United States. The Central Bank of Libya (Bank of Libya) therefore, effectively became the monetary authority in Libya.

This study concentrates on the tools of Libyan monetary policy and on their uses in Libya.[1] The discussion of monetary policy tools in Libya shall include an analysis and suggestions for increased effectiveness of the tools of monetary policy in order to achieve the national economic goals which frequently are found in public announcements in Libya.

These national economic objectives are:

1. a higher rate of economic growth,
2. a stable price level, and
3. a low rate of unemployment.

---

[1]We shall discuss the historical application of monetary policy and also the possible policies which now can be applied under the new banking law of 1963.

Economic objectives

The following will give some details about the trends of actual economic growth, price level, and unemployment[2] during 1958-63.

1. A higher rate of economic growth.

   During the period 1958-63 the gross national product increased at an average annual rate of 12 percent (see Table X). The real per capita income was £L 45.1 in 1958 while in 1963 it was £L 71.7,[3] an increase of 59 percent.

2. Reasonable price stability.

   An inflationary tendency caused by the discovery of oil in 1955 has been appearing more clearly since 1960. During the period 1958-63 the price level increased by 29.7 percent (see Table X) or by an average increase of approximately 6 percent per year, which is a serious problem and may be an obstacle to economic development. Past experience has shown that a rate of inflation more than 2 or 3 percent creates serious obstacles to economic development.[4] The Libyan monetary authority has taken some efforts to avoid price instability and to curb this inflationary tendency. A stable price level is desirable,

---

[2] It should be noted that up-to-date unemployment statistics are not available.

[3] The population and income statistics were taken from U. N. Monthly Bulletin of Statistics, October, 1964.

[4] G. Haberler cited that "An annual price rise of more than 4 or 5 percent would be dangerous inflation. Less than 2 or 3 percent would create unemployment because of the irresistible wage push exerted by labor unions." See Inflation, Its Causes and Cures (American Enterprise Association, June 1961), pp. 52-55.

and its accomplishment is one of the major economic goals of the monetary authority.

3. A lower level of unemployment.

If we define unemployment as a situation in which there are no jobs for those who want to work, then unemployment in Libya is not a serious problem facing its economy. But the problem of unemployment in Libya is typical of less developed countries and differs from that of the advanced countries. In Libya, according to traditions and customs, very few women are engaged in economic activity. A small proportion is engaged in the education sector as teachers in girls' schools. Some women living in the rural areas may operate farms in cooperation with their husbands. In general, women in Libya are still operating in the home where their services are not included in the national product accounts. Therefore, it is reasonable to expect that a high proportion of people who can work are not employed in economic activities.

Another kind of unemployment in Libya is disguised unemployment, particularly in the government administrative departments and in the trade sector. If some government employees were to be discharged to another sector, government services to the public would not be affected. The main objective is not only a lower level of unemployment, but also a higher rate of participation in the labor force and a higher rate of productivity.

The Central Bank

The Central Bank of Libya was established in 1956 according to the law No. 30 of 1955, under the name National Bank of Libya. This new bank received the deposits of the government without paying any interest on them. In turn, it did not charge commission for any banking services offered to the government. It conducted its own commercial banking business and administered a system of exchange control.

A new banking law was passed early in 1963, the Banking law No. 4 of 1963. In accordance with this new law (Article 1) the old name National Bank of Libya was changed to the Bank of Libya, effective June, 1963. The Bank of Libya established a new department for controlling commercial banks. This department was activated late in 1963. The prior law did not enable the National Bank of Libya to operate as a central bank.

According to the Governor of the Bank of Libya,

> The new law gives this institution the necessary legal authorities which are common to all genuine central banks. It gives this Bank the authority to develop and supervise the banking system on the basis of sound banking procedures and in the full interest of the national economy. The law also gives our Bank the authority to employ all the conventional central banking instruments, which are necessary for sound and stable monetary and fiscal systems.[5]

The objectives of the central bank are:[6] (1) to regulate and issue Libyan currency; (2) to maintain monetary stability in Libya[7] and the external value of the Libyan pound; and (3) to regulate credit and banking policy and supervise its execution with the aim of supporting the national economy toward its main goals discussed earlier.

---

[5]National Bank of Libya, Seventh Annual Report of the Board of Directors (Tripoli, 1963), p. 10.

[6]United Kingdom of Libya, The Banking Law No. 4 of 1963 (Article 13).

[7]To maintain the local value of the Libyan pound.

The Central Bank is supposed to achieve its objectives by using all the power given to it by the new banking law. The tools of its monetary policy are: open market operations, reserve requirements, Bank Rate, and other selected credit controls.[8]

Before the passage of the new banking law the National Bank of Libya operated more like a commercial bank than a central bank. All the accounts of the central bank were held by its banking department. There is no doubt that mixing the banking department with the central banking function induced the central bank to forget its real function and to concentrate upon expansion of its banking department by opening new commercial branches.

The new law necessitated also the internal reorganization of the Bank of Libya. Efforts were made to separate the accounts of the commercial banking department from the central banking department as of June 15, 1963.[9] The commercial banking department is still owned by the central bank, but it is subject to central bank policy, just as other commercial banks. Other efforts were also made to set up an investment section and to strengthen the exchange control department.[10]

The reorganization of the exchange control department was the responsibility of the Ministry of Finance.[11] The new banking law gave this

---

[8]These monetary policy tools are discussed in detail in Chapter III.

[9]Bank of Libya, Eighth Annual Report of the Board of Directors, (Tripoli, 1964), p. 1

[10]Ibid., p. 2

[11]Ibid.

responsibility to the Bank of Libya, so that special efforts were made by the Bank of Libya to improve the efficiency of the exchange control system, such as forming a committee in order to review the exchange control law of 1955. Thus, if all necessary efforts are made on the basis of the new banking law, Libya may have for the first time a real central banking policy. The establishment of an economic research department which may engage in fruitful research in the field of monetary policy may prove to be very helpful to the central bank.

Money Supply (Including Discussion of the Currency Situation)

The Economic Research Department of the Bank of Libya calculates money supply as currency outside banks plus demand deposits held by the public.[12]

Factors Affecting Money Supply

Since the money supply changes in response to the size of economic activities in any country, the factors affecting economic activity also affect the money supply. Economic activity in a country is affected by local economic activity and its contribution to the international economic activity as well, and the money supply is affected also by both local and international economic activities.

The Bank of Libya considered the factors affecting the money supply in such a way that the new money creation or the net rate of increase of money supply is the change in net foreign assets plus the change in advances given to private sector by commercial banks minus the change in

---

[12]Bank of Libya, Monthly Economic Bulletin, May-June, 1964, Table 5.

the three liability items; namely, government deposits, private saving and time deposits, and other net liabilities (Table I). In symbolic terms we can write the previous sentence as follows:

$$\Delta M = \Delta F_a + \Delta A_p - \Delta(D_g + D_{st} + Z)$$

where ΔM is the change in money supply, ΔF_a the change in net foreign assets, ΔA_p the change in advances given to private sector by the commercial banks. D_g government deposits, D_{st} private saving and time deposits, and Z the other net liabilities of commercial banks.

In the case of Libya, there is a net domestic liability, which means that the banking system is borrowing from local market more than its lendings to it. The reason for this fact is that the central bank is still investing its funds abroad. It might be that the lack of a stock market induces the central bank to invest its funds in foreign securities rather than facing risks of other investment opportunities which are available in Libya.

In general, since the money supply equals the currency outside the banks plus demand deposits held by the public, the change in money supply equals also the change in currency plus the change in demand deposits held by the public. The evidence from data shows that currency outside banks is approximately equal to fifty percent of total money supply. Thus, it is preferable to discuss currency situation separately from money supply, in order to show its effects on economic activity and the policies of the central bank, as those of the currency backing.

Currency Situation

The standard of currency in Libya is the Libyan pound which is divided into one hundred piastres and each piastre into ten milliemes. The Libyan

TABLE I

FACTORS AFFECTING MONEY SUPPLY

(In £L Millions)

	Outstanding at the End of			Changes During(1) the Year Ended	
	March 1962	March 1963	March 1964	March 1963	March 1964
Money Supply	27.25	31.11	37.22	+3.86	+6.11
a - Currency	13.89	15.71	19.15	+1.82	+3.44
b - Demand Deposits	13.36	15.40	18.07	+2.04	+2.67
Net foreign exchange assets	35.28	36.72	42.82	+1.44	+6.10
Net domestic assets of banks	-8.03	-5.61	-5.60	+2.42	+0.01
a - Advances to private sector	15.22	18.88	23.73	+3.66	+4.85
b - Private time and saving deposits	8.67	9.88	15.77	-1.21	-5.89
c - Government deposits	9.17	8.07	5.96	+1.10	+2.11
d - Other unclassified net liabilities	5.41	6.54	7.60	-1.13	-1.06

Source: Bank of Libya, Seventh and Eighth Annual Reports of the Board of Directors.

Note: This table is calculated from aggregate balance sheet of commercial banks and central bank.

(1) The sign (+ -) represents the effect that these changes have on total money supply.

pound is maintained at parity with sterling. Its value in terms of fine gold is equal to 2,48828 grams.[13] The old law (law No. 30 of 1955, Article 29) required 100 percent foreign exchange backing for all currency issued, of which no less than 75 percent was to be in sterling balances and United Kingdom securities. That was because of the currency treaty between Libya and the United Kingdom.

There is no doubt that imposing 75 percent of the assets of the issue department to be invested in sterling assets (old law, Article 29) has prohibited the central bank from investing these reserves in the most profitable assets. The new law, however, gives the central bank the right to invest these reserves in foreign securities which are issued or guaranteed by governments whose currencies are convertible. In spite of the fact that tying the Libyan pound with the sterling pound benefits Libya from the point of view of its international activities, we should not lose the sight of the other fact that keeping all the cover of Libyan currency issued as balances abroad and investment in foreign securities is not favorable to the Libyan economy. The reason is that an increase in currency issued means, at the same time, an increased capital outflow. This is at variance with the needs of the Libyan economy, which as a less developed one, requires capital to be invested inside the country.

The new banking law reduced the proportion of foreign securities to be held as currency backing from 75 percent to 65 percent of the total currency issued. The other 10 percent is supposed to be in terms of securities issued or guaranteed by the Libyan government. The remainder

---

[13] United Kingdom of Libya, The Banking Law No. 4 of 1963, Article 26.

of the total currency issued (25 percent) must be backed in terms of gold and convertible currencies under the Articles of Agreement of the International Monetary Fund.

The new law was put into effect in June, 1963, so that collateral for approximately 25 percent of the total currency issued is in gold and convertible currencies. It was about 24.7 percent in December, 1963. Unfortunately, the Bank of Libya statistics do not show the amount of monetary gold kept in the issue department separately, so that we cannot know also the amount of the balances held as convertible currencies, and hence, the total amount of foreign currencies and securities kept as assets of foreign currency issued.[14]

As long as the new law (Article 31) is in existence, the monetary authorities in Libya shall find themselves in a complicated position. That is to say, capital is exported by the monetary authority itself, while at the same time the monetary authority seeks to attract capital for developmental purposes.

---

[14] Eighth Annual Report of the Bank of Libya indicates that balances in convertible currencies amounted to £L 2,921,404 at the end of March, 1964, and the gold bullion worth amounted to £L 2,032,257. So that monetary gold kept in the Bank of Libya amounted to about ten percent of total currency issued at the end of March, 1964 (Total currency issued = £L 20,290,000), while the IFS of IMF shows that gold held by the Bank of Libya amounted to $2.8 million and $7.0 million as at the end of 1962 and 1963, respectively.

CHAPTER II

LIBYAN ORGANIZED MONEY MARKET DEVELOPMENT AND GROWTH

In this chapter we want to examine the development and growth of the Libyan organized money market, and consequently to show if its growth is entirely or just partly helpful to economic development. In other words, if the Libyan money market is growing, does its growth result from increased investment financed by the banking system, or does it result from increased advances granted by the banking system to finance imports or for consumption purposes? Of course, our conclusions are helpful to this study. These conclusions must be taken into account when an increase in the effectiveness of monetary policy is desired.

Here we shall use the same measures which Mr. U. Tun Wai uses in his study "Interest Rates in the Organized Money Markets of Underdeveloped Countries"[15] in comparing organized money market development between developed and underdeveloped countries. These measures are: (1) the ratio of deposit money to money supply; (2) the ratio of credits given to the public to national income.

Table II shows the ratio of deposit money to money supply and the ratio of credits granted to the private sector as a percentage of National Income. During 1956-57 the ratio of deposit money to money supply

---

[15]U. Tun Wai, "Interest Rates in the Organized Money Market of Underdeveloped Countries," IMF, Staff Papers, Vo. 5 (February, 1956-February, 1957), p. 249.

was higher than those during the rest of this period 1956-63. The deposit money - money supply ratio was about 64 percent in December, 1956, and about 55 percent in December, 1957, but reached its minimum during this period in December, 1962. In general, deposit money - money supply ratio is slightly flexible during this period. It did not show any significant permanent increase in this ratio, but it did show a serious decrease in this ratio during 1956-58 and during 1960-61.

It appears that the currency outside banks is increasing faster than that of deposit money, and that the growth of unorganized money market is higher than that of organized money market (considering the currency outside banks - money supply ratio as an indicator of the growth of unorganized money market). The ratio of deposit money to money supply is expected to be high in a developed country and low in an underdeveloped country. In other words, deposit money - money supply ratio is higher in a more developed country than those countries which are less developed, because the developed country has a developed money market. In less developed countries, there is a great use of currency as a medium of exchange. In 1953, the deposit money - money supply ratio was 79 percent in the United States, 72 percent in the United Kingdom, 45 percent in Egypt, 54 percent in Iran, 35 percent in Iraq, and 34 percent in Pakistan.[16] Since Libya is still less developed country, we expect low deposit money - money supply ratio in relation to that of advanced countries. That is what is shown also in Table II.

The purpose of this chapter is to examine the growth of the Libyan organized money market during that chosen period. And the actual deposit

---

[16]Ibid., p. 251.

TABLE II

THE LIBYAN ORGANIZED MONEY MARKET GROWTH

(In £L Million)

End of	Deposit Money	Money Supply	Ratio Percent 1÷2	Credits 1	Estimated National Income 2	Ratio Percent 1÷2
1956	8.8	13.8	64	6.0	NA	--
1957	7.6	13.8	55	7.2	45	16.0
1958	7.5	14.7	51	9.4	52	18.1
1959	9.9	18.8	53	11.8	56	21.1
1960	12.0	22.3	54	15.4	61	25.2
1961	13.3	26.1	51	16.9	70	24.1
1962	14.0	29.1	48	20.2	82	24.6
1963	17.9	35.7	50	26.0	91	28.5

Notes:

(1) National Agricultural Bank credit is included from 1957.
(2) Credits figures are taken from aggregate balance sheet of commercial banks and balance sheet of both the Bank of Libya Banking Department and the National Agricultural Bank.
(3) Credits given by the National Agricultural Bank and included in 1957, 1958, and 1959 are for March of the years 1958, 1959, and 1960, respectively.
(4) Estimated national income statistics were taken from: U. N. Monthly Bulletin of Statistics, October 1964.
(5) Our analysis may be more adequate, if we take the monthly average of deposit money, money supply and credits instead of outstanding at the end of the year. However, we consider these ratios represent the year as a whole.
(6) NA = Not Available.

money - money supply ratio during this chosen period indicates that there is no significant progress in the growth of the commercial banking in Libya.

Now then, let us examine the growth of the organized money market in another way. The ratio of credits to national income was about 16 percent in 1957. During 1957-60 this ratio was slightly increasing, until it reached 25.2 percent in 1960. Then it was decreased to 24.1 percent in 1961, 24.6 percent in 1962, and finally it was increased again to about 28.5 percent in 1963. However, during this period under discussion the ratio of credits to national income was, in general, slightly increasing, indicating that advances granted to the private sector tend to increase more rapidly than the national income. So that it seems that this ratio is likely to increase, because its increase means to maintain economic development and a higher rate of growth of expenditures as a result of the higher increase in credits. Thus in this respect we can say that this credit - national income ratio indicates an increase in the growth of organized money market in Libya.

It is very interesting to observe from Table II that the average of deposit money - money supply ratio and the average of credits - national income ratio (53.3 percent and 22.5 percent, respectively) during this period, lie between 1959 and 1960. The first ratio in relation to its average has negative changes during 1961-63, while the second ratio in relation to its average have positive changes during 1960-63.

It is conceivable to expect that the unorganized money market in Libya is growing more rapidly than the organized money market. However, it is very hard to prove this conclusion. Because of the lack of credit

data available outside the organized money market, no valid comparisons can be made.

The ratio of currency outside banks to money supply may be used as an indicator to the growth of the unorganized money market. It is generally known in Libya that credit extended outside the banking system by sellers of different goods, is rapidly increasing particularly in the rural areas where there are no banks and where there are some new intermediary financial societies such as cooperative societies. These credits, given outside the banking system, are partly shifted to the commercial banks by discounting the promissory notes. In this respect it is conceivable to consider the rapid increase in discounting bills with banks as an evidence of the rapid increase in credits granted by non-banks. For example, the amount of discounting amounted to about £L 3.4 million, £L 4.1 million, and £L 5.5 million as at the end of December of the years 1961, 1962, and 1963, respectively.[17] These bills discounted represented about 22.3 percent, 23 percent, and 24.2 percent of total credits granted by commercial banks as at the end of the same mentioned years, respectively. No doubt the rapid increase in discounting promissory notes whether in terms of amount granted by banks or in terms of percentages of total credits, is an indication of the rapid increase in credit extended outside the banking system by sellers of all different goods, especially those sellers of household durables and automobiles.

---

[17] Bank of Libya, Monthly Economic Bulletin (May-June, 1964), Table 8 (excluding N. Agricultural Bank).

From this arises the question, Is the organized money market growing from the point of view of its contribution to the national economic development? In this respect the ratio of credits to national income is reduced to that ratio of credits given for manufactures and agriculture to national income which shall be taken as an indicator of credits given for industrial development. During the period (1960-63), we have seen that the credit - national income ratio (Table III), was slightly increasing. While if we compare between these years the latter ratio, we observe a small increase in 1961, a small decrease in 1962, and a relatively higher increase in 1963; so that the slight increase in the growth of the organized money market in 1960, 1961, and 1962 was mostly in the favor of the other purposes such as general commerce and motor vehicles and transport services. The former absorbs more than 40 percent of total credits and the latter absorbs more than 14 percent of total credits.[18]

---

[18] Ibid., Table 6.

TABLE III

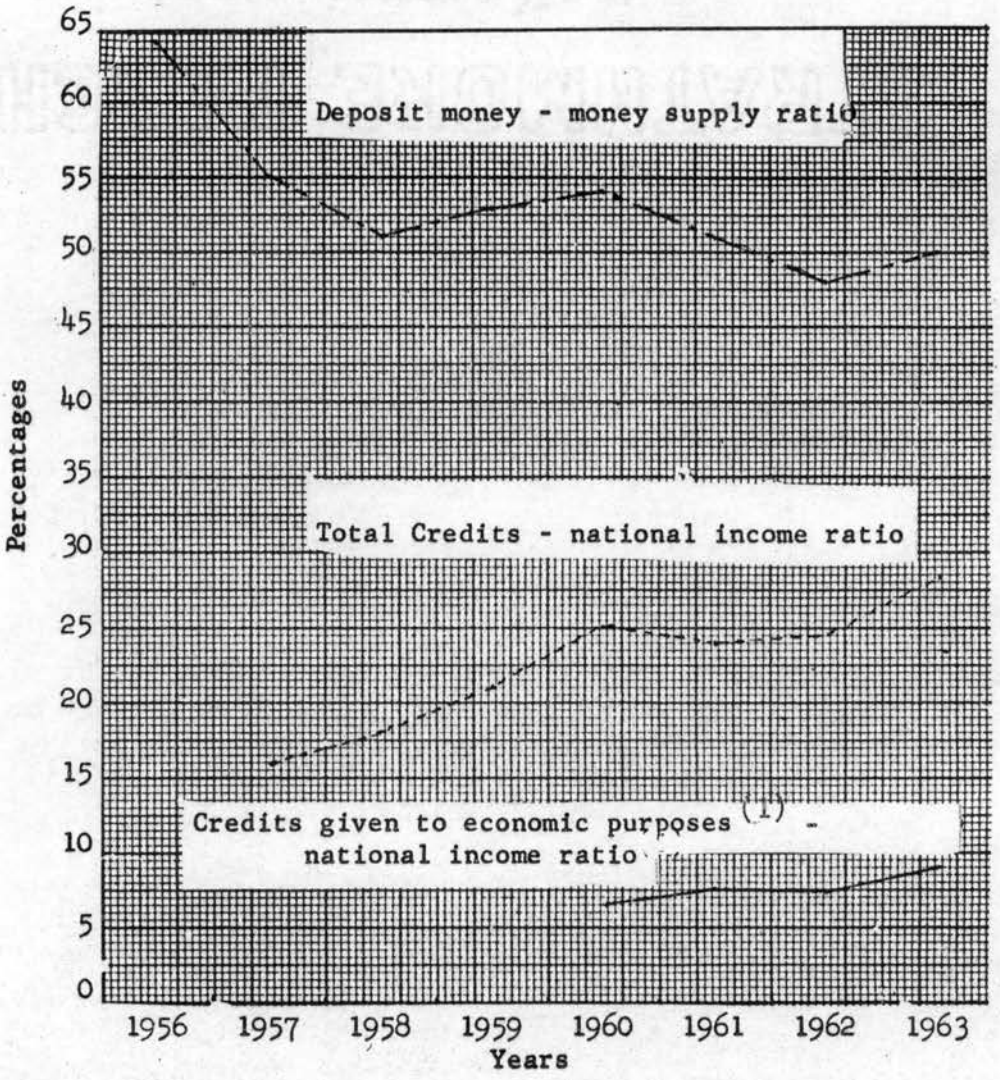
CREDITS FOR ECONOMIC PURPOSES

(In £L Million)

Economic Purpose	December 1960	December 1961	December 1962	December 1963
1 - Manufacture	1.3	1.5	2.0	1.8
2 - Construction	1.0	1.2	1.8	2.4
3 - Agriculture	1.9	2.5	3.2	3.9
Total Credits (1 + 2 + 3)	4.2	5.2	6.0	8.1
Total Credits - National Income Ratio (Percent)	6.9	7.4	7.3	8.9

Note: Credits given to agricultural purpose include those credits given by the National Agricultural Bank.

Source: Bank of Libya, Monthly Economic Bulletin (March-April, 1964).



(1) Credits given to manufactures, construction, and agriculture.

Source: Tables II and III.

Figure 1. The Growth of Libyan Organized Money Market.

CHAPTER III

TOOLS OF MONETARY POLICY

The central bank should have effective tools of monetary policy in order to achieve its objects which were previously mentioned. In general, there are four main groups of methods of control that a central bank can operate over the commercial banks:[19] (1) selling and buying of the existing securities in the open market operations; (2) using rediscount rate and rediscounting; (3) imposing and altering reserve requirements for deposits upon the commercial banks; and (4) giving specific orders to the commercial banks about the kind and amount of business they may do. The central bank of Libya can operate only the last three methods of control over the commercial banks, since there is no organized securities market in Libya.[20] The new law, however, gives the central bank the authority to purchase and sell securities, bonds and bills issued or guaranteed by the Libyan government (Article 14). Should a market open, the central bank of Libya can operate all methods of control with a modern central bank should have.

---

[19] A. C. L. Day and S. T. Beza, Money and Income (New York, 1960), p. 157.

[20] In addition, up to now there are no government securities.

Bank Rate

The Bank Rate is that rate of discount which is set up by the central bank as a charge on its credits to the commercial banks, and regulates the quantity of money and controls credits. In other words, the direct effect of raising or lowering the Bank Rate is to decrease or increase credits, and in turn, to decrease or increase the money supply. Bank Rate, through its effect on the money supply, affects the interest rates and prices. Mr. E. P. Neufeld said: "The influence /on interest rate/ of the central bank does not arise from changes in the Bank Rate ....but rather from the operations which the Bank undertakes in order to affect the money supply and from the effect of the resulting change in the money supply."[21]

In general, we can briefly say that the Bank Rate has two main effects. First, it is the belief of most economists that the Bank Rate's primary effect is directly on the short-term rate of interest. Consequently, if there is a further impact on prices or long-term rate of interest, it is not a direct effect of the Bank Rate. Second, the other main effect of the Bank Rate is that it has a psychological value which is of importance to the central bank as an instrument of credit control. It reflects the central bank's opinion of the credit situation, and the economic position. However, it is felt by many economists that the psychological effects of the Bank Rate are primarily such as to change the direction of expectations. The central bank is in position to control the money

---

[21] E. P. Neufeld, Bank of Canada Operations and Policy (Toronto, 1958), p. 69.

market entirely, by using its tools of monetary policy, while the commodity market lies in the hands of investors and consumers. The expectations of commodity market's dealers are not influenced by the rediscount rate changes, but they are influenced by the further actions taken by the money market's dealers. In addition, changes in expectations of the money market are just one factor which may lead to changes in expectations of the commodity market.

In the case of Libya we could not find any effect resulting from changing Bank Rate of the Libyan central bank. The reason is that the commercial banks are liquid enough that they do not need to borrow from the central bank. The Bank Rate began in Libya at a level four percent per year in 1956. Then it was first raised to five percent in October, 1957, and in August, 1960, was again raised to six percent,[22] while in February, 1961, it was reduced to its previous level of five percent which is in effect still. A special letter sent by Mr. Yousef A. Izmirli (an Economic Officer in the Economic Research Department of the Bank of Libya) indicates that actual rediscounting began only in 1962. If this is the case, the changes in the Bank Rate in October, 1957, and August, 1960, had nothing to do with respect to its effect on the amount of rediscounting, and hence the amount of credits.[23] But these changes in the

---

[22]National Bank of Libya (Economic Research Department) Inflation in Libya (Tripoli, March, 1961), p. 38.

[23]A letter was sent to the Economic Research Department of the Bank of Libya, asking for any justification to changing the Bank Rate mentioned above. Mr. Bhat, the expert of statistics answered: "With respect to the rediscount rate in Libya it is enough to mention the following statement in your thesis: 'The discount rate of the Bank of Libya was 5 percent from December 1958 through July 1960, and 6 percent from August 1960 through January 1961, and 5 percent from February 1961 through date.'" While

Bank Rate might have psychological effects in order to change the direction of expectations in the money market which might result in a change in the interest rate. The available data of interest rates in 1960 showed some changes in the minimum and maximum of the interest rates of the several types of credits. The maximum rate of interest on secured and unsecured credits rose from nine to 10 percent. The minimum rate of interest on inter-bank call loans was raised from 2.5 percent to 4 percent, while the minimum rate of interest on discounts was reduced from 5.5 percent to 5 percent which was against the expected result from raising the Bank Rate. The expected result from raising the rediscount rate is that the discount rate charged by the commercial banks should be equal to or higher than, the rediscount rate. Moreover, the reduction in the Bank Rate happened in 1961 was not accompanied by significant changes in the interest rates. The minimum rate of interest on inter-bank call loans was reduced from 4 percent to 3.25 percent, and on unsecured credits from 5.5 percent to 5 percent, while the maximum rate of interest paid by banks on time deposits was 6 percent in December, 1961. This is, of course, unconceivable and hard to believe that the commercial banks pay higher interest rate on time deposits in the time during which they borrow from the central bank with a lower rate of interest.

The Rate of Interest

Unfortunately, the lack of interest rate data in an unorganized money market makes it difficult to discuss this topic in both organized and

---

Mr. K. M. Sherlala (Acting Director of Edonomic Research Department of Bank of Libya) answered the question of Why has not the Bank Rate changed since February, 1961? by this: -- "It is my belief that there is no justification for maintaining the Bank Rate constant at 5 percent, except that change conducted in the past proved that there are no benefits from changing it twice up and down."

nonorganized money markets. However, it is observed that the rate of interest is very high in unorganized money market in relation to that in the organized money market. In fact, it is stated that interest rates in an unorganized money market of an underdeveloped country like Libya is very high in relation both to those in organized money markets and to the needs of economic development.[24] A likely reason why the rate of interest is higher in the nonorganized money market is that most lenders in unorganized money market are not connected with the organized money market so that they have no facilities to sell credits or promissory notes, and consequently, the supply of loanable funds is rather limited and inflexible.

The demand for loanable funds in unorganized money markets is rapidly increasing, whether these credits are demanded to finance capital goods in agriculture or to finance consumer goods. Credits given to finance consumer goods are wide-spread in the unorganized money market. This is because these loans are mostly given not in money but in commodities, and because the size of the average loan is very small. Many small borrowers cannot go to the organized money market for two reasons: first, the banks refuse to grant very small loans; second, credit facilities for the purpose of consumption have not been granted yet. Thus, these borrowers are forced to borrow from the unorganized money market, and to pay higher interest rates. It is conceivable to expect a reduction in credits given by unorganized money market for consumption purpose, if the

---

[24] U. Tun Wai, "Interest Rates Outside the Organized Money Markets of Underdeveloped Countries" IMF. Staff Papers, Vol. 6 (Nov., 1957-58), p. 80.

organized money market starts to grant credit facilities for consumption purpose. Consequently, those borrowers who pay a high rate of interest in the unorganized money market will enter the organized money market and have the advantage of a lower rate of interest. By spreading the banking system and reducing the credit facilities given by unorganized money market, we can accomplish a lower rate of interest which is a necessary support for increasing investment and hence economic development.

In general, the rate of interest in the organized money market of an underdeveloped country is more or less the same as in the organized money market of a developed country[25] because the organized money market of underdeveloped countries can obtain funds from abroad. The higher interest rates of underdeveloped countries can be explained in terms of a higher level of risks and in order to hedge against illiquidity. Banks can make profits by buying foreign assets which are considered liquid according to the definition of the banking law of 1958. Therefore, banks prefer to export capital to money markets in developed countries rather than by buying less marketable liquid Libyan assets which have a higher monetary yield.

Table IV shows the interest rate data for different types of credits and deposits. These data show the minimum and maximum rate of interest charged on every type of credit, and the difference between these two limits such as discounts, and secured and unsecured loans, is very large. The difference is about four percent or more, so that it is hard to discover "the" rate charged on credits.

---

[25] Ibid.

TABLE IV

MONEY RATES

During	Time Deposits		Saving Deposits		Interbank Call Loans		Discounts		Loans and Overdrafts			
									Secured		Unsecured	
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Dec., 1959	0.5	5.0	0.5	4.0	2.5	4.5	5.5	9.0	5.0	9.0	5.5	9.0
Dec., 1960	0.5	5.1	0.5	4.5	4.0	4.5	5.0	9.0	5.0	10.0	5.5	10.0
Dec., 1961	0.5	6.0	0.5	4.5	3.25	4.5	5.0	9.0	5.0	10.0	5.0	10.0
Dec., 1962	0.5	5.0	0.5	4.5	3.0	4.5	5.0	9.5	6.0	10.0	6.5	10.0
June, 1963	1.55	5.5	1.0	4.0	4.0	5.0	6.0	9.0	6.0	9.0	6.5	10.0
Sept., 1963	1.62	5.5	1.0	4.0	4.0	4.75	6.0	9.0	6.0	9.0	6.5	10.0
Oct., 1963	1.51	3.5	1.0	3.5	2.75	4.75	7.0	7.5	6.0	7.0	7.0	7.5
Dec., 1963	1.51	3.5	1.0	3.5	2.75	4.0	7.0	7.5	6.0	7.0	7.0	7.5

Source: Bank of Libya, Monthly Economic Bulletin (May-June, 1964), Table 14.

The call loan rates between commercial banks are the lowest rates, which is the usual case in most countries. The rate of interest paid on deposits by commercial banks is not very flexible. In October 1963, there was a sudden change in all rates of interest on different types of credits or paid by banks on saving and time deposits. This sudden change is related to the fixing of the rate of interest imposed on banks by the central bank (see Table V). Since October, 1963, the interest rates have remained constant according to those levels fixed as maximum. The justification for fixing the prices of loans at maximum level is to provide opportunities for small borrowers to obtain loans with a suitable price, and protect them from higher prices.[26] The justification for fixing the prices of saving and time deposits is to limit unsound competition which may arise between banks in attracting depositors.

Reserve Requirements

Its Effectiveness and Functions

Any effort made by the central bank to regulate money supply must involve affecting bank liquidity in general. This is because the money supply is affected when a change in legal reserve requirement is felt by the commercial banks, and limits their ability to create new money. This should be the case, since the primary function of legal reserve requirements is to facilitate effective control of the money supply and credits, in order to exercise an effective credit control in the interest

---

[26] Bank of Libya, Eighth Annual Report of the Board of Directors, p. 1.

TABLE V

RATES OF INTEREST FIXED BY THE CENTRAL BANK

Type of Borrowing	Maximum Rates
1. Secured borrowings	2 percent per annum above rediscount rate of Bank of Libya, i.e., 7 percent per annum.
2. Unsecured borrowings	2.5 percent per annum above rediscount rate of Bank of Libya, i.e., 7.5 percent per annum.
3. Demand deposits	No interest to be paid.
4. Savings accounts	1.5 percent per annum below rediscount rate, i.e., 3.5 percent per annum.
5. Time deposits	
a. At notice up to 10 days	1.75 percent per annum below rediscount rate, i.e., 3.25 percent per annum.
b. At notice of over 10 days	1.5 percent per annum below rediscount rate, i.e., 3.5 percent per annum.
6. Fixed deposits	
a. Between 30 days and 89 days	1.5 percent per annum below rediscount rate, i.e., 3.5 percent per annum.
b. Between 90-179 days	1.25 percent per annum below rediscount rate, i.e., 3.75 percent per annum.
c. Over 180 days	1 percent per annum below rediscount rate, i.e., 4 percent per annum.

Notes: (1) Interest paid on items 3-6 would be calculated on daily balances but charged monthly.
(2) Items 1-2 include loans overdrafts and all other types of borrowings including discount of bills.
(3) Considering 5 percent rediscount rate.

Source: Bank of Libya, Monthly Economic Bulletin (November-December, 1963), p. 329.

of such objectives as a stable price level and a higher rate of growth.[27] Another function of the legal reserve requirement is to provide protection to depositors by increasing the bank liquidity and safety in case of bankruptcy; but it is generally accepted that this function is limited and not workable if banks are still doing business. The effectiveness of reserve requirement is greatest when it has a real impact on credit expansion and the creation of new money, so that a high or low reserve requirement ratio should depend on the actual liquidity of banks and actual money supply in relation to the needs of the national economy and on both the desirable liquidity of the banking system, and the desirable expansion in money supply in relation to the needs of economic growth.

The actual liquidity of an individual bank depends mainly on the amount of its excess reserves (cash or demand deposits), on other assets that can be turned into cash easily without serious loss, and on the ability to obtain additional funds by borrowing from other banks or from the central bank. The liquidity of the banking system as a whole is dependent upon the central bank reserve requirement policy, and the central bank's assistance to the banking system in time of crisis, by creating additional funds through rediscounting or granting credit facilities. Then there is a further question that should be considered, namely, what is the appropriate level of reserve requirements which should be maintained in Libya which is discussed in Chapter V.

---

[27]Further discussion see Warren L. Smith, "Reserve Requirements in the American Monetary System," CMC, Monetary Management, pp. 175-177.

Banking Liquidity in Libya

It is preferable to discuss the banking liquidity as defined by the banking law of 1958 in order to show the actual trends of the banking liquidity, and the reasons which are responsible for its variations, before the special discussion which is devoted to reserve requirements under the banking law of 1958. Here we shall determine banking liquidity by the amount of total liquid assets as a percentage of total liability deposits.[28]

Total liquid assets are namely: cash on hand or in transit; demand deposits, whether due from the Bank of Libya or due from other banks in Libya; and foreign currency on hand and balances due from banks abroad. While total liability deposits include demand deposits plus saving and time deposits.

The banking liquidity or liquid assets - deposit ratio was decreasing during 1956-60, particularly in 1957 and 1958 when the decrease in banking liquidity was very high, about 14 percent in 1957 and 9 percent in 1958 (Table VI). Then there was no change in liquidity in 1959, but it is evident that there was a high increase in both total liquid assets and total liability deposits, about 14 percent for each. The year 1961 seemed to be one of greater liquidity than the previous year. For example, the banking liquidity increased by 11 percent in 1961 to reach 39 percent, liquid assets and deposits increased by 74.5 percent and 23.4 percent in 1961 to reach £L 8.22 and £L 21.19 million, respectively.

---

[28] This is according to the definition of total liquid assets given by the banking law of 1958, and in order to show the difference between actual liquidity ratio and required liquidity ratio.

TABLE VI

SELECTED ITEMS FROM THE AGGREGATE BALANCE SHEET OF THE COMMERCIAL BANKS

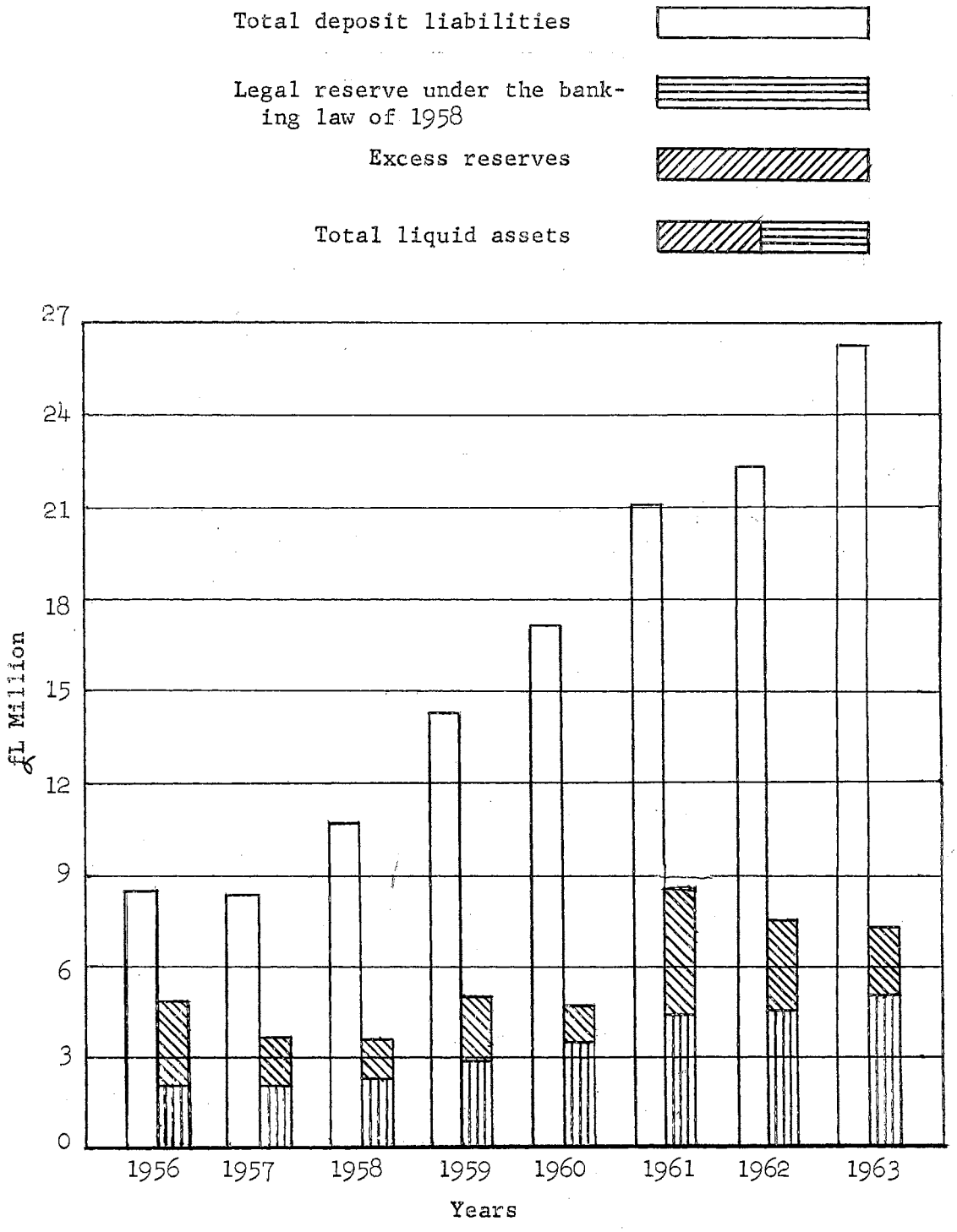
(In £L Million)

Selected Items	At the end of 1956	1957	1958	1959	1960	1961	1962	1963
1. Total liquid assets	4.85	3.65	3.63	4.98	4.71	8.22	7.53	7.34
1.1 - Cash on hand	.68	.63	.51	.52	.87	.75	.75	.67
1.2 - Deposits with the central bank	.42	.19	.74	1.02	1.12	3.57	3.24	4.35
1.3 - Other liquid assets	3.75	2.83	2.38	3.44	2.72	3.90	3.54	2.32
2. Total deposit liabilities	8.48	8.41	10.63	14.31	17.15	21.19	22.24	26.30
2.1 - Demand deposits	.563	4.72	6.47	9.01	11.54	14.11	14.13	15.14
2.2 - Saving and time deposits	2.85	3.69	4.16	5.30	6.61	7.08	8.31	11.16
3. Liquid assets - deposit ratio (1÷2) percent	57	43	34	34	28	39	34	28
4. Excess reserve	3.16	1.97	1.50	2.12	1.28	3.98	3.08	2.28

Notes:

(1) Excluding central bank banking department.
(2) Excess reserve is calculated according to the banking law of 1958.

Source: Bank of Libya, Monthly Economic Bulletin (March-April, 1964).



Source: Table VI.

Figure 2. Banking Liquidity 1956-63 (Excluding the Central Bank Banking Department).

Then again the liquidity ratio decreased by five and six percent during 1962 and 1963, respectively. A perisal of old statistics shows that the banking liquidity was higher than 50 percent, but since 1956, it has become less than 50 percent and is rapidly decreasing.

Reserve Requirements Under the Banking Law of 1958

The reserve requirements imposed by the banking law of 1958 requires commercial banks to keep as liquid assets not less than 20 percent of their deposit liabilities. This ratio is determined at the end of every month using the statistics provided by banks. Balances due from banks abroad (demand and time deposits) are included in liquid assets.

The decreasing liquidity ratio shown in Table VI may be related to the rapid increase in credits granted by banks which absorbed some of the liquid assets, resulting from increasing investment opportunities year by year. However, it is not related to the central bank regulations, since the actual liquidity ratio is still higher than that required by the banking law of 1958. But, the central bank itself mentioned in its annual reports that it has spared no effort to curb inflation which has appeared since 1960, by using the appropriate monetary policy.[29]

The rapid increase in deposits with the central bank is certainly related to the central bank efforts. Deposits with the central bank increased from £L 1.12 million at the end of 1960 to £L 3.57, £L 3.24, and £L 4.35 at the end of 1961, 1962, and 1963, respectively. Table VI shows also that the banking system enjoys excess reserves during all the period

---

[29] National Bank of Libya, Sixth Annual Report of the Board of Directors, p. 8-9, and Seventh Annual Report of the Board of Directors, pp. 11-12.

under discussion. Therefore, the banks did not suffer any liquidity difficulties under the law of 1958, and if there was any bank suffering liquidity, it could borrow from the central bank or from other banks which had excess reserves.[30]

The amount of rediscounting in Libya is not a significant one for alleviating any liquidity difficulty. Since most banks had excess reserves there was no need for them to use central bank discount facilities. Rediscounting was about £L 18,000 and £L 74,000 in December of 1962 and 1963, respectively,[31] or say it is 0.11 percent and 0.31 percent of total credits given by the commercial banks (excluding the central bank banking department) at the end of 1962 and 1963, respectively. Under the banking law of 1958 and according to the efforts made by the central bank of raising the liquidity ratio during 1961-63, this ratio did not reach a certain level which might be felt by the commercial banks. Excess reserves are in evidence.

Reserve Requirements View in Light of the Banking Law of 1963

The previously mentioned banking law of 1958 imposed a reserve requirement of not less than 20 percent of deposit liabilities of commercial banks computed on the base of liquid assets-deposit ratio. But the banking law No. 4 of 1963 has imposed a new reserve requirement which banks should maintain with the central bank without interest, against their

---

[30] Borrowing from other banks is cheaper since the maximum price of inter-bank loans is less than the Bank Rate itself in Libya.

[31] These figures were sent by the Economic Research Department of the Bank of Libya as an answer to a letter of July 9, 1964.

deposit liabilities. This new law gives the Board of Directors of the central bank the authority to order the proportion of reserves for each kind of deposit liability (Article 36). This proportion shall be within 5 percent to 20 percent on time and savings deposits and 10 percent to 40 percent on demand deposits (including unused balances and uncovered credit facilities).

The central bank is now able to control the proportion of reserves to deposit liabilities within the intervals mentioned above. This 36th article of the new law has been put into effect on July 20, 1963, beginning with the minimum legal reserves, namely 5 percent on saving and time deposits and 10 percent on demand deposits.[32] The previous article indicated that any upward change in the percentage within the above intervals shall be made as gradual as possible, except in emergencies. In case of a deficiency in a bank's reserve requirements, the central bank is able to penalize the bank by charging interest on the amount of the deficiency at a rate not exceeding one-thirtieth of one percent of such deficiency for each day, or forcing the bank to cover immediately such deficiency in its reserves (Article 38). The central bank is also able to require banks to deposit reserves in a proportion exceeding the maximum limit determined in Article 36, but the central bank shall pay interest on the reserves exceeding the mentioned maximum limit (Article 37) at a rate not more than the Bank Rate. It is also noted that the reserve requirements are computed once a week.

---

[32]Bank of Libya, Eighth Annual Report of the Board of Directors (Tripoli, 1964), p. 1.

Reserve Requirements During July-December, 1963

The legal reserves required by the banking law of 1963 (Article 36) beginning with the minimum legal reserves, have been put into effect on July 20, 1963. During July-December, 1963, the low level of minimum legal reserves resulted in an easy money policy. The actual legal reserves held in the central bank are less than the total actual deposits of banks held in it. This means that the present level of reserve requirements may be too low with respect to the actual deposits with the central bank. Then, as a result of the lower level of reserve requirement, the commercial banks enjoyed excess reserves. So that imposing this level of reserve requirements (the minimum) may be unsound policy since curbing inflation is desirable. It is conceivable to assume that the actual deposits with the central bank should be considered as a minimum level of reserve requirements to begin with, particularly in the case of Libya, that the monetary authority is working to curb inflation. So that it is preferable that the new level of reserve requirements should be 20 percent on demand deposits and 10 percent on saving and time deposits (Table VII).

Table VII shows some analysis of the reserve requirements and other related data during July-December, 1963. Deposits with the central bank were almost constant during this period, except August when there was a reduction of £L .68 million and December when there was a small increase amounting to £L .3 million. In fact, during this period the commercial banks enjoyed excess reserves, so that they did not feel the need of adjusting their deposits with the central bank in time of its reduction such as in August, 1963, despite the fact that the demand deposit liability

TABLE VII

BANKING LIQUIDITY AND RELATED DATA

(In £L Million)

Selected Items	July 1963	August 1963	September 1963	October 1963	November 1963	December 1963
1. Deposits with Bank of Libya	4.18	3.50	4.07	4.05	4.05	4.35
2. Cash on hand	.54	.56	.66	.60	.63	.67
3. Total (1 + 2)	4.72	4.06	4.73	4.65	4.68	5.02
4. Demand deposits (liability) (D.D.)	16.29	17.17	16.24	15.12	14.26	15.14
5. Saving and time deposits (S.T.D.)	9.02	8.86	9.00	10.44	11.01	11.16
6. Total deposit liability	25.31	25.03	25.24	25.56	25.27	26.30
7. Uncovered borrowing from local banks	.68	.65	.67	.41	.36	.38
8. Money Supply	33.21	34.96	34.63	34.61	34.97	35.70
9. Reserves according to the present ratio	2.15	2.21	2.14	2.07	2.01	2.11
10. Reserves if it is 20 percent for D.D. and 10 percent for S.T.D.	4.16	4.32	4.14	4.06	3.96	4.14
11. Actual legal reserves held in the central bank	3.00	2.23	2.03	2.03	2.00	2.09

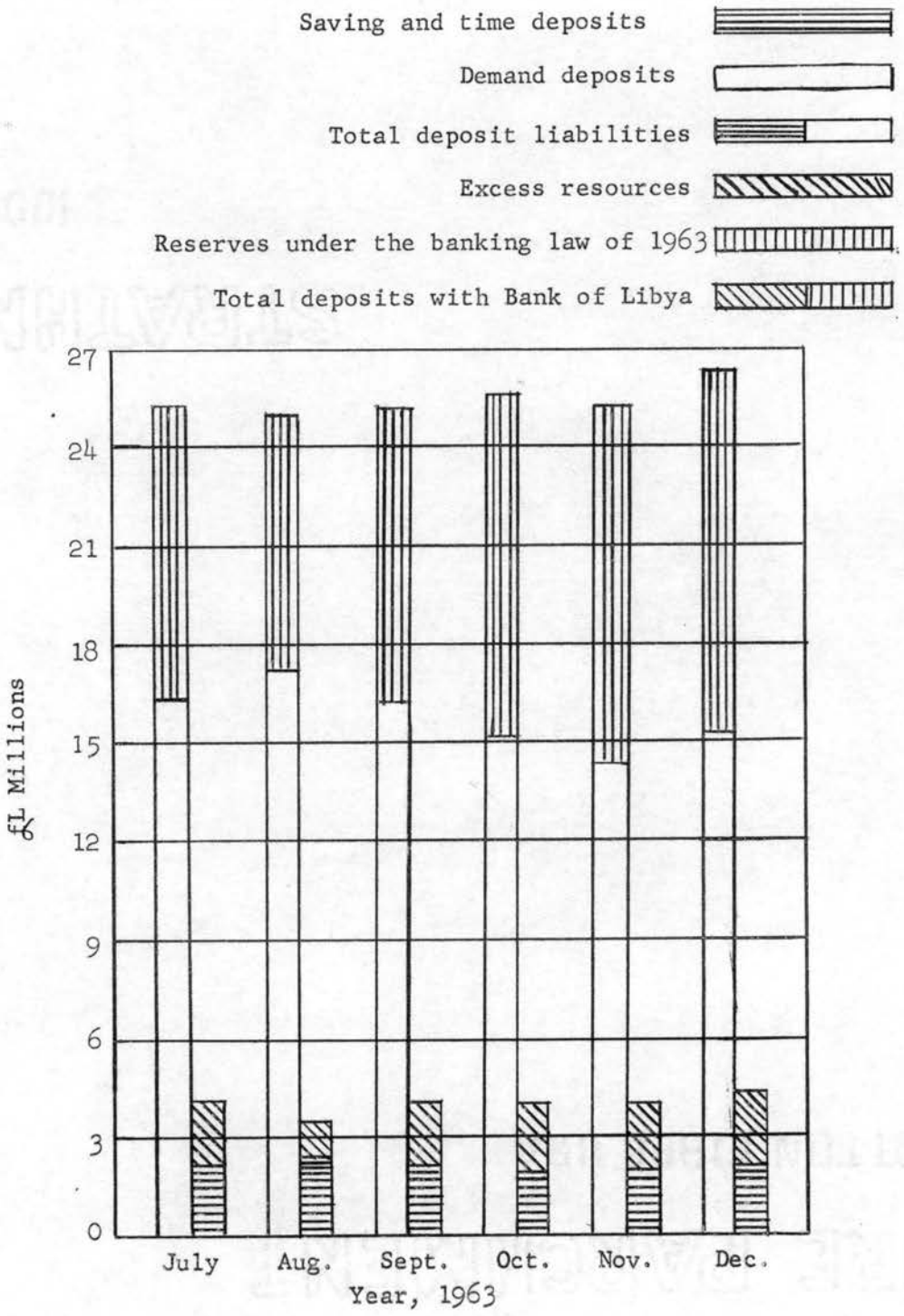
Notes:

(1) Item 9 calculated as 10 percent on demand deposits and uncovered borrowing plus 5 percent on saving and time deposits.

(2) Items 7 and 11 were sent by the Economic Research Department of the Bank of Libya as a reply to a letter of August, 1964.

(3) All items (except 8 and 11) exclude the central bank banking department.

Source: Bank of Libya, Monthly Economic Bulletin (March-April, 1964).



Source: Table VII.

Figure 3. Banking Liquidity July-December 1963 (Excluding the Central Bank Banking Department).

was increased by about one million Libyan pound (excluding the Bank of Libya banking department). Then, as a result, the money supply was increased by £L 1.75 million (of course, including the central bank banking department). Here it should be noted that some of this increase in money supply is related to a decrease in inter-banks deposits of £L .54 million which is mostly transferred to either deposits held by the public or currency outside banks, or to both of them. The money supply is not regulated closely by any monetary policy tool, and the reason for this fact is related to the deficiency of the present level of reserve requirements. For example, if the level of reserve requirements is 20 percent on demand deposits, and 10 percent on saving and time deposits, then there are no excess reserves, and hence, the commercial banks adjust their deposits with the central bank whenever there is an increase in their deposits liabilities, so that the increase in deposits may be absorbed by the central bank instead of leaving them added to money supply which might be undesirably increased. Consequently, the central bank can regulate the money supply using the liquidity reserve requirements as an effective tool for monetary stability.

Selected Credit Controls

The New Banking Law Impact

The new banking law of 1963 gives the central bank authority to control credit. For example, this new law states that one of the main objects of the central bank is to regulate credit and banking policy in such a way that it can support the national economic goals; namely, stable prices and a high rate of growth. In addition, the new law

permits the central bank, in order to accomplish these goals, "to influence the direction of credit with relation to the quantity, quality, and price so that the real requirements of commerce, industry, and agriculture are met" /Part (a) Article 13/. Thus, the central bank is in a position to regulate credit entirely as it wants. Article 15 permits also the central bank to fix the rate of rediscount and the rate of interest. Some rules of this new law have been put into effect since July-October, 1963, such as the establishment of a new reserve requirement and fixing the rate of interest.

Selective Credit Controls

Most economists consider the monetary policy tools, reserve requirement, rediscount rate, and open market operation, as the main instruments of credit control. We have discussed earlier the reserve requirements and rediscount rate, while in case of open market operations we do not devote even one page to investigate it, since it does not exist up to now in Libya and because there is no organized securities market nor government securities. In addition to these main instruments of credit control there are some selecteive credit tools which may be used as temporary tools of credit control for some special purposes. For example, the new banking law of 1963 permits the central bank to use some selective credit controls in order to regulate credit to what is needed for economic development.

The central bank can determine the amount of credit and its quality so that discrimination between types of credits is possible. In this event, it is preferable to influence the amount of a desirable type of

credit by using discriminatory rediscount rates rather than using for example, a special proportion of credits should be given to this desirable type of credit because the former needs less control than the other alternative.[33] The central bank charges a low rediscount rate on those bills which are taken against the desirable type of credits, and high rate on those undesirable bills, or by placing low ceilings on the quantity of undesirable bills which are accepted for rediscount. [34] There is, however, no guarantee that funds obtained from the rediscount of desirable bills will not be used for undesirable purposes. In addition, some big businessmen also operate farms, so that the possibility of considering most credits given to those businessmen as agricultural credits (in case agricultural credit is deemed desirable) is conceivable. This selective credit control is only effective if the banks are not liquid enough and thus need to come to the central bank for borrwoing. The latter occurs only if the reserve requirement ratio is high to an extent which is felt by the commercial banks. During the last two years, rediscounting expanded very rapidly and this may well circumvent the selective credit control of discriminatory rediscount rates. Another selective credit control may be used such as restricting the length of time allowed for repayment. The case of renewing loan maturity is widely spread in Libya. Therefore, if such credit control is selected, attention should be given to the case of renewing loan maturity. The less the

---

[33] The other alternative is to determine the amount and the quality of credits. It was argued that this policy needs a higher level of control which is hard to be found.

[34] A. Patel, "Selective Credit Controls in Underdeveloped Economics," IMF, Staff Papers, September, 1954, p. 77.

renewing the loan maturity is the more effective will be the restricting of the loan maturity. In this case, the central bank must have inspectors actually checking other banks concerning each loan and its maturity.

Moral Suasion

Before the establishment of the new law of 1963, the central bank of Libya could not apply effective instruments of credit control on the commercial banks. The only useful instrument of credit control which the bank had at its command was to exercise moral suasion.[35] But this instrument of credit control in Libya is not effective. There is no information showing that the central bank has discussed credit policy seriously with the cooperation of the commercial banks. More evidence which seems to prove that the moral suasion instrument of credit control in Libya is not effective, is that the credit analysis according to loan purpose showed that credits were not regulated in favor of the national economy. However, we should not lose sight of the fact that, according to the old banking law of 1958, the central bank was not able legally to regulate credit so it relied on the moral suasion instrument, which was the only tool of credit control at its command.

---

[35] In a speech at the opening of the Bengazi Branch of the National Bank, A. N. Aneizi the governor and the Chairman of the Board of Directors of the National Bank of Libya, a published speech, National Bank, Tripoli, 1957, p. 6.

CHAPTER IV

MONEY INCOME AND PRICES

Money Supply Analysis in Libya (1956-63)

By analyzing the actual trends of the money supply and factors responsible for its changes, it is found that:

1. Demand for currency is greater than that for demand deposits.
2. Net foreign assets are largely responsible for the changes in money supply.
3. Currency amounted to over 50 percent of total money supply.

In 1963, the factors of the money supply in Libya (currency and demand deposits) tend approximately to be equal (see Table VIII). During the years 1956, 1957, and 1958, currency outside banks was rapidly increasing, while demand deposits were slightly decreasing. Since 1959, demand deposits have maintained a positive rate of growth, and in the case of currency outside banks, the rapid increase was maintained during the period under review. During the same period, the average rate of growth of currency outside banks was about 20 percent per year, while the average rate of growth of demand deposits was only about 12 percent per year.

TABLE VIII

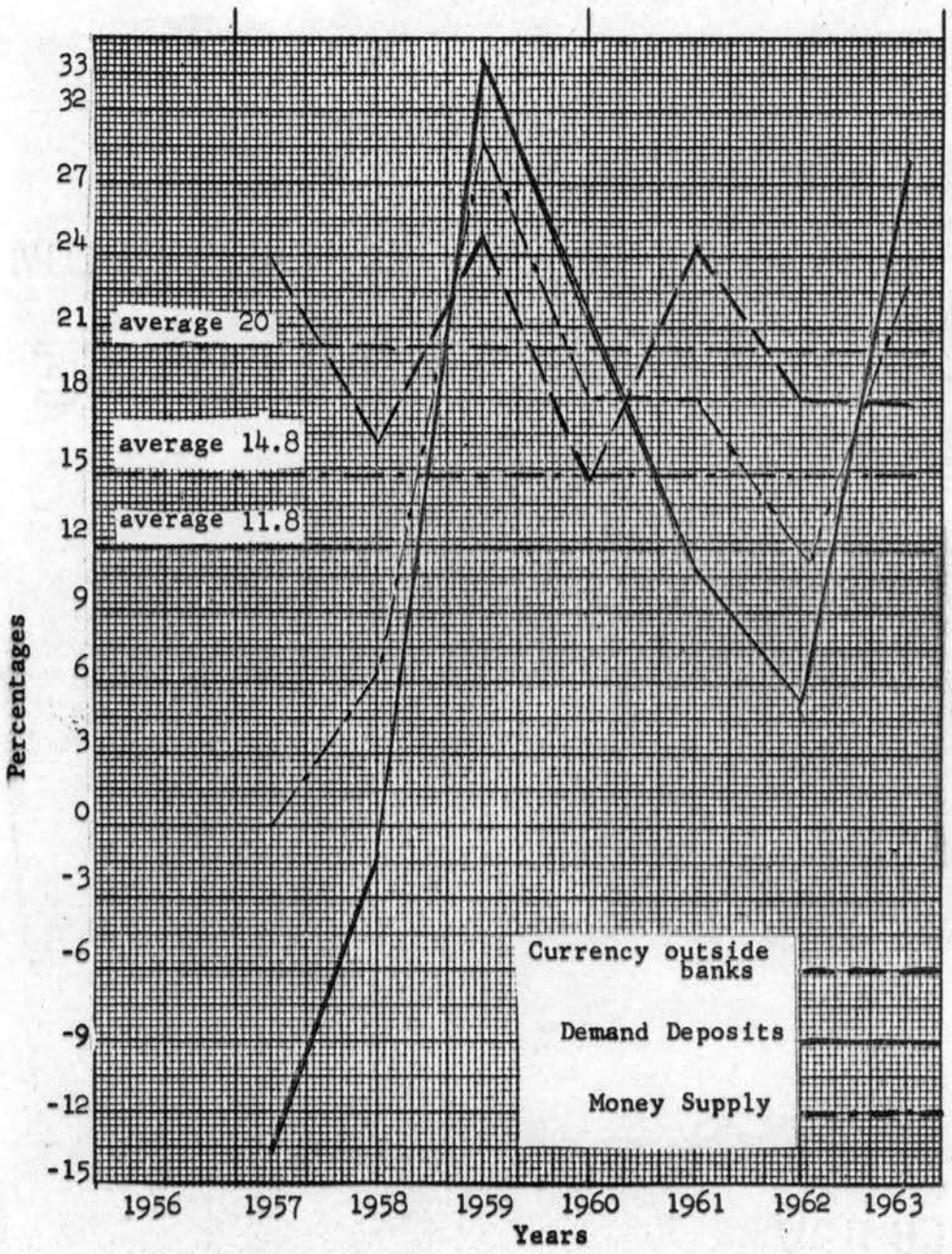
MONEY SUPPLY IN LIBYA

(In £L Million)

End of	Currency Outside Banks		Demand Deposits Held by the Public		Total Money Supply	
	Amount	Growth Rate Per Year (Percent)	Amount	Growth Rate Per Year (Percent)	Amount	Growth Rate Per Year (Percent)
1956	5.0		8.8		13.8	
1957	6.2	24.0	7.6	-13.6	13.8	0.0
1958	7.2	16.1	7.5	-1.3	14.7	6.5
1959	9.0	25.0	9.9	32.0	18.9	28.6
1960	10.3	14.4	12.0	21.2	22.3	18.0
1961	12.8	24.3	13.3	10.8	26.1	18.0
1962	15.1	18.0	14.0	5.2	29.1	11.5
1963	17.8	17.9	17.9	27.9	35.7	22.7
Average rate of growth	--	20.0	--	11.8	--	14.8

Note:
(1) All figures are rounded.
(2) The rate of growth for the year is calculated as a percentage of the previous year figure.

Source: Bank of Libya, Monthly Economic Bulletin (March-April, 1964).



Source: Table VIII.

Figure 4. The Annual Growth Rate of Money Supply in Libya and its Components.

The money supply increased very rapidly year by year since 1957. The highest rates of growth of money supply were about 28.6 percent and 22.7 percent per year in 1959 and 1963, respectively, but the average rate of growth of money supply was about 14.8 percent per year during the period under discussion. The average rate of growth per year for currency outside banks is higher than that of demand deposits held by the public. In accordance with the statistics shown in Table VIII currency outside banks was usually less than demand deposits held by the public during 1956-63, except during 1962 when the currency outside banks exceeded the demand deposits held by the public. This fact may be related to the lower rate of growth of net foreign assets during the same year, because the increase in net foreign assets has a direct impact on demand deposits. This is also clear from the comparison between the rates of growth of both demand deposits and net foreign assets (Table IX). The rate of growth of net foreign assets was about 5 percent during 1962, which is approximately equal to that of demand deposits held by the public.

Table IX shows the comparison between money supply and the main factors, credits, saving and time deposits and net foreign assets, affecting money supply. The average rates of growth of both credits and saving and time deposits were approximately equal. These savings and time deposits are the main source for granting credit facilities, particularly in the case of Libya. There is a strong relation between the growth rates of both credit and saving and time deposits. We mentioned previously that credit affects money supply directly in such a way that an increase in credit leads to an increase in money supply, while saving and time deposits affect money supply inversely in such a way that an increase in saving and time deposits leads to a decrease in money supply. Since this is true, it is conceivable to believe that their impacts on money

TABLE IX

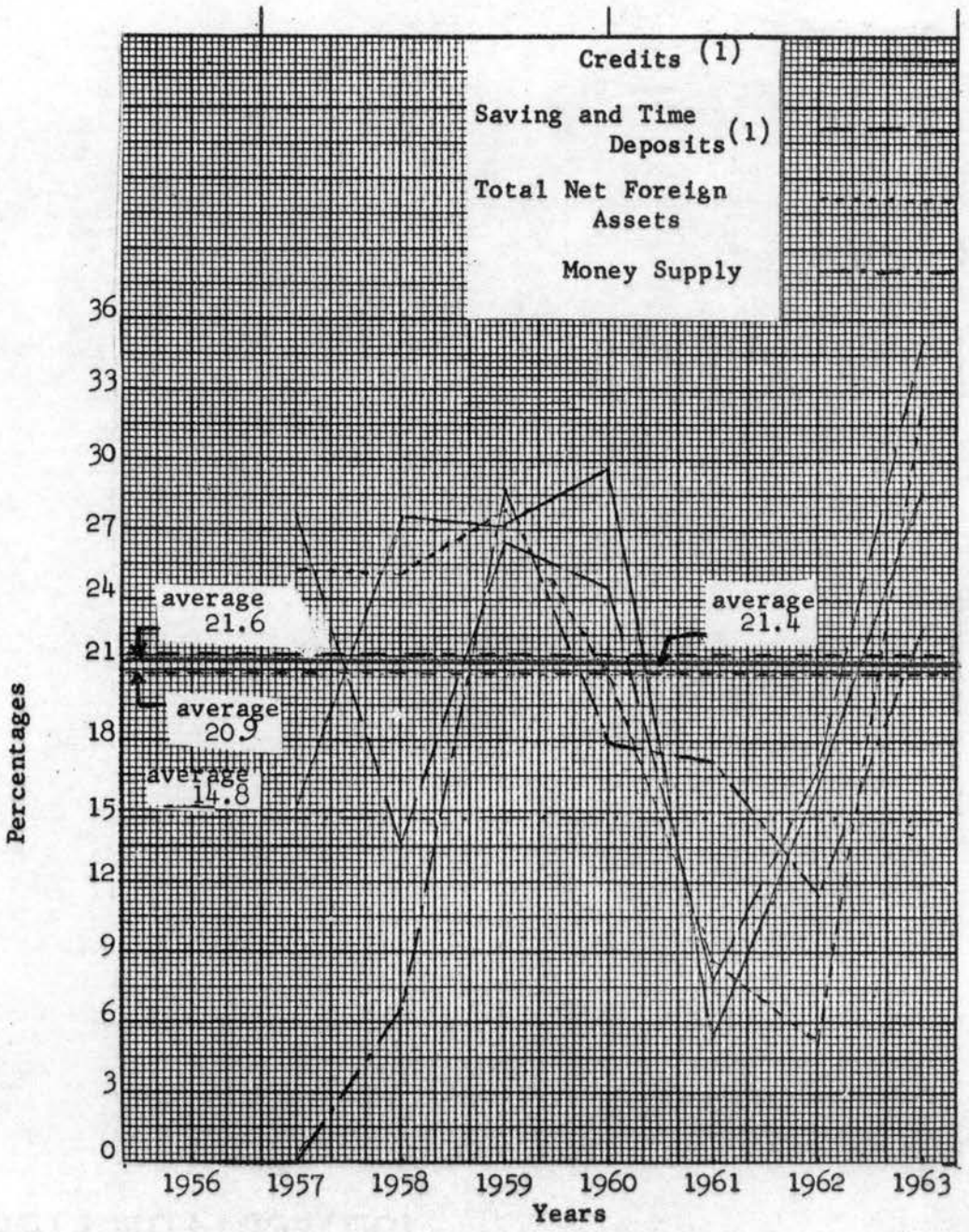
MONEY SUPPLY AND OTHER SELECTED ITEMS (COMMERCIAL BANKS)

(In £L Million)

End of	Money Supply		Credits(1)		Saving and Time Deposits(1)		Total Net Foreign Assets	
	Amount	Growth Rate Per Year (Percent)	Amount	Growth Rate Per Year (Percent)	Amount	Growth Rate Per Year (Percent)	Amount	Growth Rate Per Year (Percent)
1956	13.8		6.0		2.9		11.9	
1957	13.8	0.0	6.9	15.0	3.7	27.6	15.0	26.1
1958	14.7	6.5	8.8	27.5	4.2	13.5	18.9	26.0
1959	18.9	28.6	11.2	27.3	5.3	26.2	24.2	28.0
1960	22.3	18.0	14.5	29.5	6.6	24.5	29.2	20.7
1961	26.1	17.0	15.3	5.5	7.1	7.6	31.7	8.6
1962	29.1	11.5	17.8	16.3	8.3	16.9	33.4	5.0
1963	35.7	22.7	22.9	28.6	11.2	34.9	44.0	32.1
Average rate of growth	--	14.8	--	21.4	--	21.6	--	20.9

(1) Excluding central bank banking department.

Source: Bank of Libya, Monthly Economic Bulletin (March-April, 1964).



(1) Commercial banks excluding the central bank banking department.

Source: Table IX.

Figure 5. The Annual Rate Growth of Factors Affecting Money Supply.

supply in Libya were approximately offset by each other. Consequently, the total net foreign assets were mostly responsible for the changes in money supply, ignoring other factors such as government deposits and net other liabilities, and if we compare between credits and money supply, we find that their rates of growth are not consistent with each other. The average rate of growth of money supply was less than that of credits. For example, their average rates of growth were about 14.8 percent and 21.4 percent per year during the period under discussion. It is observed that the average rate of growth for credits, net foreign assets (Table IX) and currency outside banks (Table VIII) were approximately equal, while demand deposits held by the public were increased by a rate less than that of credits and net foreign assets. There is a higher cash drain whenever there is an increase in credits or net foreign assets, which means demand for currency exceeds the demand for demand deposits. This should be the case in the less developed country like Libya, since the banking habit and knowledge are not widespread in the country. It is the main reason for the fact that currency outside banks represents approximately 50 percent of the money supply. Another likely reason is that hoarding is still widespread in the nation, particularly in the rural areas.

The year 1963 showed a higher banking activity. For example, the rate of growth of saving and time deposits was about 35 percent for the first time during the period under discussion. This higher rate is related partly to the saving campaign which was made in 1963 by the central bank with the cooperation of the commercial banks, and the other part is related to the great increase in time deposits. In accordance with the aggregate balance sheet of the commercial banks

(excluding central bank banking department), the increase in time deposits is accompanied by a reduction in demand deposits (including inter-banks deposits) during the last three months of 1963. The rate of growth of net foreign assets amounted to about 32 percent during 1963, which has been the highest annual rate during the period under review. This higher change is mostly related to the increasing oil exploration activities. For example, the expenditures of oil companies in Libya increased by about 29 percent in 1963 to reach £L 59.5 million,[36] and the exports of crude oil increased by about 246 percent in 1963 to reach £L 117.4 million.[37] Also, there is no doubt that a higher increase in saving and time deposits leads to a higher increase in credits granted by banks, and the latter combined with the higher increase in net foreign assets leads to a higher increase in money supply, which was true of 1963.

The Relationship Between: Money, Income, and Prices

Money is not needed for itself, but for purchasing goods and services, since it is a medium of exchange. Incomes are paid in terms of money since money is a measure of value of goods and services. Prices of goods and services are also measured in terms of money since it is a unit of accounting. Therefore, money income, and prices are affecting each other so that a strong relationship exists between them. Thus, it is useful to discuss the relationship between money income and prices in Libya in one topic.

---

[36] Bank of Libya, Eighth Annual Report of the Board of Directors, p. 37.

[37] Ibid., p. 40.

The price of the Libyan pound is one pound and it never changes, but the value of the Libyan pound may change, since its value is the amount of goods and services which it will buy. The money value of a good does not remain stable since money income is unstable. The greater the quantity of money the higher the prices will be (income constant),[38] and the greater the income (with money constant) the lower the prices will be. This may be observed clearly in the equation of exchange $MV = PT$. Then we can add, also according to this equation, that the greater the value of money, the lower the prices will be. Unfortunately, our lack of adequate data of price index and real incomes seriously hinder our analysis.

Table X indicates the relationship between money,[39] income and prices, and, in addition, the growth rates of money supply, real income and the price index. It should be noted that we have assumed a constant velocity of circulation during the chosen period (1958-1963). Thus, it is assumed that the rate of growth of money income is equal to that of money supply as shown in Table X, because the money income changes depend on the changes of money supply and its velocity of circulation, and the velocity of circulation is assumed to be constant. In 1959 the growth rate of money supply was 10.6 percent, while the growth rate of real income was only 8 percent. So that the variation between those rates reflects a rise in the price index amounted to 2.7 percent.

---

[38] Keynes' comment is that changes in the quantity of money do not affect prices directly, because prices are determined primarily by costs of production, the impact of changes in money fails on the rate of interest rather than on prices. See D. Dillard, The Economics of J. M. Keynes, "The Theory of a Monetary Economy," p. 223.

[39] See Note 3 below Table X.

TABLE X

ESTIMATED INCOME AND PRICE LEVEL

Item	In fL million 1958	1959	1960	1961	1962	1963
Money Supply (MS)	14.23	15.76	20.62	23.71	27.80	32.32
Velocity of Circulation (V)	3.65	3.65	3.65	3.65	3.65	3.65
Money Income (MI)	52.0	57.5	75.3	86.6	101.5	118.0
Price Index (P) percent	100.0	102.7	123.4	123.7	123.8	129.7
Cost Index of Living percent	100.0	104.7	116.5	116.3	121.4	129.3
Real Income (T)	52	56	61	70	82	91
Growth Rate of MS percent	--	10.6	30.8	15.0	17.3	16.3
Growth Rate of (MI) percent	--	10.6	30.8	15.0	17.3	16.3
Growth Rate of (T) percent	--	8.0	9.0	14.8	17.1	11.0

Notes:

(1) We have considered that 1958 as a basic year price level = 100 percent and money income equals real income because the estimated national product at factor cost of 1958 by the Libyan Central statistics office was published in June, 1959, and we feel it is more adequate than the other estimated incomes of the other years, that is because the inflationary tendency in Libya was felt just from 1960 up to now.

(2) We obtain price index by using the equation of the quantity theory of money $P = \frac{MV}{T}$ or say price index = $\frac{\text{Money income}}{\text{real income}}$.
We are forced to do this because of the lack of adequate price index statistics in Libya. And we cannot consider the cost index of living which is produced by the Tripolitanian Statistics Office of the Ministry of National Economy as a price index for several reasons such as it concludes food as staff items only, and the deficiency of weights taken into account is reasonable to be assumed since there was no family budget analysis in that time. However, the price index which we obtain in this table is

The price index was continuously rising during the period under review because the growth rate of money supply was greater than that of real income during the same period. In 1961 and 1962 the variations between the rate of growth of money supply and the rate of growth of real income were very small, the changes in the price index in 1961 and 1962 are very small, too. Therefore, a stable price index can only be reached when the variation between the growth rate of money supply or money income and the growth rate of real income is zero, if velocity is constant.

During the period 1958-63 the average annual growth rate of real income was 11.98 percent while the average annual growth rate of money supply or money income was 18 percent. The outcome was an inflationary tendency which occurred in the Libyan economy. The average increase in the price index is 5.94 percent per year, or the rate of inflation is about 6 percent per year, taking 1958 as a base year. With a constant velocity the difference between the rate of growth of money supply and the rate of growth of real income induces the price index to rise by approximately this difference.

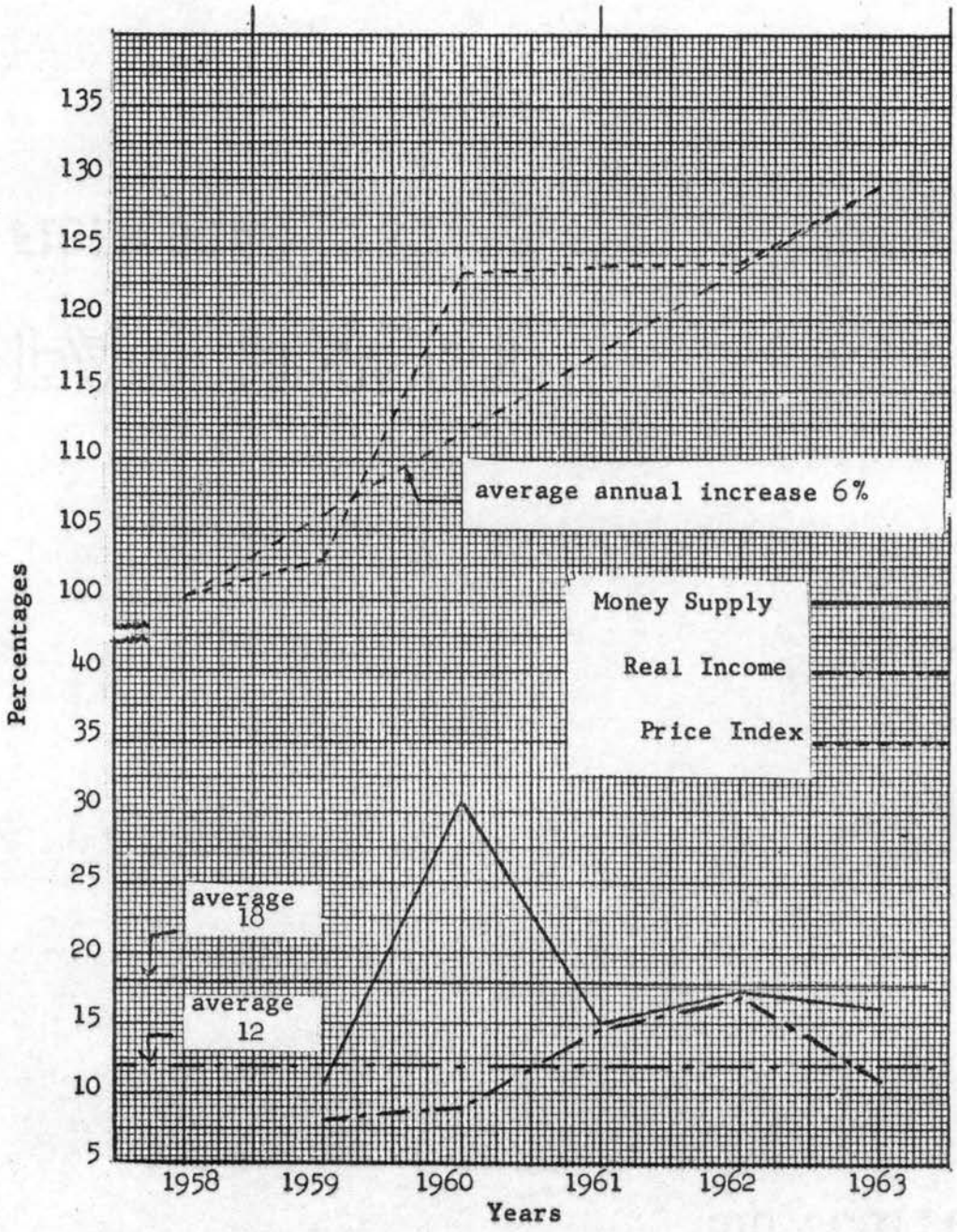
---

similar to the monthly average of price index of the cost of living prepared by the previous office of statistics, as shown in row 5 in this table.

(3) Money supply figures are monthly averages except that of 1958 which is an average of December 1957 and December 1958. These figures were brought from Economic Research Department of the Bank of Libya.

(4) Real income figures were taken from U. N. Monthly Bulletin of Statistics, October, 1964.

(5) Money income is obtained by using the equation of the quantity theory of money MV = TP or say -- money income equals money supply times its velocity of circulation.



Note: Annual growth rate of money supply equals annual growth rate of money income since the velocity of circulation is assumed to be constant.

Source: Table X.

Figure 6. The Annual Growth Rates of Money Supply and Real Income, and the Annual Average Increase in the Price Index.

With 6 percent inflation Libya accomplished an average annual growth rate of real income of approximately 12 percent. There is no doubt that Libya can accomplish a higher rate of growth in case of stable prices. Inflation discourages local production through increasing demand for imported goods and decreasing demand for local production. Because of this, prices of imported goods are cheaper than those produced locally. Thus, to reach a higher rate of growth, it is necessary to curb inflation which may be solved by reducing the quantity of money. However, a higher rate of growth is maintained when the flow of goods and services is mostly obtained from local production.

The Causes of Inflation in Libya

We may define inflation in Libya as a condition in which money income is rising faster than the flow of goods and services on which to spend it. The factors which increase money supply and hence money income are the causes of inflation.

1. The causes of increasing money supply in Libya may be considered as the main cause of inflation in Libya, such as the rapid increase in the inflow of funds from abroad, and the rapid increase in the government expenditures. These rapid increases in foreign expenditures raised the money incomes faster than the local output. Without doubt, these increased incomes created demand pressure for larger imports. And with respect to the rapid increase in government expenditures, the government has been putting more purchasing power in the economy than it has absorbed through taxation and other domestic revenue. The budgetary deficit, which was increased more rapidly than the budgetary spending,

was financed by foreign aid. The new purchasing power, of course, created an increase in the aggregate demand for goods and services, then it caused prices to go up. Some fiscal years showed budgetary surplus. But this surplus was not a significant one since its amount was very small.

2. It should be noted that the previous factor of causing inflation cannot cause the inflationary tendency by itself without the creation of new money. In every marked inflation, assuming a constant velocity of circulation, we observed that the annual growth rates of money and money income were increasing identically. The real income grew with a lower rate than that of money income, and the difference reflects increasing prices. Thus, if we want to maintain stable prices, we have to maintain the equality of real income and money income, then the rate of growth of quantity of money should be equal to the rate of growth of output, assuming constant income velocity. Stable prices are only reached when the difference between the percentage changes of money income and real income is zero. As a matter of fact, we mentioned previously that since our goals are stable prices and a high rate of growth in gross national product, we should regulate not only the existing stock of money, but also, if possible, its velocity of circulation.

CHAPTER V

EVALUATION OF MONETARY POLICY AND TOOLS OF MONETARY MANAGEMENT IN LIBYA

The previous chapters have shown the actual application of monetary policy in Libya, and the analysis of the tools of monetary management which were applied during the period 1956-63. This chapter will evaluate these tools of monetary management in Libya, and their impact on the Libyan economy. In addition, a part of this chapter is devoted to the consideration of how these tools of monetary management can be made more effective.

Currency Backing and Its Impact on Capital Flight

A policy of a foreign exchange backing for all Libyan currency issued gives rise to a capital outflow. Libya is an underdeveloped country which requires additional capital in order to employ more Libyan resources. Any increase in currency issued, however, increases the capital outflow. Capital funds are exported rather than being invested in Libya. The average annual rate of growth of currency issued is approximately 18 percent, which implies a similar rate of growth of capital exports attributable solely to satisfying the currency collateral provision of the law. Thus, owing to the currency collateral requirement, it is somewhat of an anomaly to seek increased domestic capital formation and, at the same time, deliberately to export capital.

Monetary Policy

One major characteristic of Libyan monetary policy during the period under discussion was that it was not a tight money policy. The inflationary tendency and the existence of large excess reserves of commercial banks can be cited as evidence of this policy. Banks were able to expand credits and hence increase the money supply. A high interest rate in an underdeveloped country like Libya does not indicate a tight money policy.[40] Taking into account inflation's impact on the money market in Libya, however, it can be seen that only the monetary yield is high. The real yield is very low; it is equal to or less than three percent.[41]

Reserve Requirements Policy

Before discussing the main consideration which the Bank of Libya takes into account whenever there is a decision concerning the level of reserve requirements, one remark concerning Article 36 (which deals with reserve requirements) of the new banking law is to be made. Since reserve requirements are the only effective tool for regulating the quantity of money, it is difficult to see why reserve requirements can only be increased to a 40 percent level. It would appear that 100 percent reserves would enable the monetary authorities to achieve better

---

[40]High interest rates are a general phenomenan in less developed countries. See U. Tun Wai "Interest Rates in the Organized Money Markets of Underdeveloped Countries" IMF, Staff Papers, Vol. 5 (1956-57), p. 249.

[41]Considering an inflation rate of six percent and a market maximum rate of interest of nine percent.

the national economic objectives of Libya, and without paying interest on such reserves.[42]

In setting reserve requirements in Libya, one consideration that should be taken into account is the possibility of a transfer of deposits from one type to another. According to the present structure of reserve requirements, banks faced with a deficiency of reserves can remedy this deficiency by trying to induce depositors to transfer their demand deposits to saving and time deposits. Thus, the amount of reserves required decreases, since the proportion of reserves required against demand deposits exceeds the proportion of reserves required against the saving and time deposits.

To make the reserve requirement ratio more effective in Libya, it would be necessary to raise this ratio to that level which can be felt by the commercial banks. Any change in the reserve requirement ratio should have an impact on the behavior of the commercial banks in particular, and on the money market in general.

According to the previous analysis of banking liquidity in Libya, it was seen that commercial banks enjoyed excess reserves during the entire period under review. In order to curb the inflationary tendency in Libya, it appears preferable, first of all, to reduce existing excess reserves of the banking system. By doing this, the Central Bank can reduce the rate of growth of the money supply, and thereby reduce the rate of inflation. Therefore it is inconceivable to impose markedly low

---

[42] According to the new banking law, the reserves can be increased to more than 40 percent, but the central bank has to pay interest on such extra reserves.

reserve requirements, thereby permitting the existence of large excess reserves of banks during a period of inflation.

The Effectiveness of the Bank Rate in Libya

There were no rediscounts before 1962. The amount of rediscounting during 1962-63 was relatively small. No change in the Bank Rate occurred during 1962-63. Since the commercial banks have sufficient reserves, and therefore do not need to borrow from the Central Bank, Bank Rate policy was not effective. Consequently, rediscount rate policy was not an effective tool of monetary policy. One likely reason that borrowing from the central bank was small, was that the maximum rate of interest on inter-bank call loans was less than the Bank Rate itself during 1959-62 and equal to it in the first half of 1963. Consequently, it was more profitable for banks to borrow among themselves rather than borrow from the Bank of Libya, and they were able to do this because the liquidity of the commercial banks was higher than that required by the monetary authority.

The policy of interest rate ceilings in relation to the Bank Rate is a factor tending to decrease the effectiveness of Bank Rate policy. This relationship between the maximum rate of interest and Bank Rate shown in Table VII indicates that Bank Rate becomes just an indicator for changing the market rate of interest.

Making Bank Rate More Effective

The problem is how to make rediscount rate policy effective. Bank Rate has two main effects on the money market, its effects on the short-term rate of interest, and its effects on expectations. According to

Cassel's view,[43] Bank Rate should be kept equal to the real rate of interest in order to maintain stable prices. The Central bank must change its rate according to the changes in the real rate of interest. M. H. DeKock's view[44] indicates that a rise in the Bank Rate must precede the rise in market rates, and a fall in Bank Rate must anticipate reductions in market rate of interest.

Making Bank Rate more effective depends also on the amount of borrowing from the central bank. That is, because the level of Bank Rate is not in itself of great importance; its importance depends on its effectiveness. Thus the central bank has to keep commercial banks short in funds so they will depend on borrowing from it to meet their emergency needs.

The effectiveness of psychological effects of Bank Rate depends on the prestige of the central bank and the degree of cooperation which it can elicit from commercial banks. It should also be noted that the effectiveness of Bank Rate does not depend on whether the rate is high or low. It is the increase in the Bank Rate rather than a high rate, and, a fall in the rate rather than a low rate that would be felt and would affect the interest rate and expectations. Therefore, Bank Rate should be used as a tool which mobilizes market expectations for purposes of fulfilling the monetary policy in such a way to make market expectations respond to Bank Rate changes.

---

[43] G. Cassel "The Rate of Interest, The Bank Rate, and the Stabilization of Prices," Readings in Monetary Theory, selected by F. A. Lutz and L. W. Mints (Homewood, 1951), p. 319.

[44] M. H. DeKock, Central Banking (London, 1954), Chapters IX and X.

To make Bank Rate more effective, the central bank must take into consideration the following factors.

1. The significant amount of borrowing from the central bank.
2. The present and expected rate of interest in the money market.
3. The statutory reserve proportions for the commercial banks.
4. Expected behavior as a result of the psychological effects of the rediscount rate.

The Prospective Impact of Fixing the Rate of Interest

Statistics on the rate of interest shown in Table VI are not flexible so much, but when the interest rates were fixed at maximum, all maximum rates of interest decreased suddenly. For example, in October, 1963, when interest rate ceilings were announced, the maximum rates charged on unsecured loans, secured loans, and discounts were decreased by 25 percent, 22.2 percent, and 16.7 percent, respectively. The maximum interest rates paid on time and saving deposits were decreased by 36.4 percent and 12.5 percent, respectively. In this case, if the inflationary tendency in Libya continues at its present level of six percent, and the maximum rate fixed as shown in Table VII, the real rate of interest tends to be one percent or one and one-half percent with respect to commercial banks as lenders, and negative, with respect to owners of time and saving deposits whose prices are ceiled at 3.5 percent per year. In this case, real Bank Rate is negative too (-1 percent). The monetary authority should emphasize curbing inflation as soon as possible.

Another possibility which may arise is that banks may discriminate between large and small borrowers by imposing harder terms on small

borrowers rather than a higher rate of interest. This discrimination is difficult to avoid because banks are free to put any terms against risks involved since prices of loans are ceiled. So to avoid this discrimination is important to insure the effectiveness of monetary policy.

To justify fixing the interest rate charged on loans in terms of protecting small borrowers from higher interest rate, has a possible non-economic rationale. Fixing rates paid on saving and time deposits in terms of avoiding unsound competition among banks an attracting deposits, serves to eliminate price competition, virtually insures profits of commercial banks, and puts competition on a nonprice basis. The existence of large excess reserves suggests that, even in the absence of the interest ceiling, banks would not have competed keenly in order to attract depositors. This suggests it is preferable if the policy of ceiling the rate of interest concerns only the prices of loans granted by banks. If interest rate paid on time deposits is higher than Bank Rate, banks prefer to borrow from the central bank rather than from depositors. Rates paid on deposits should lie below the Bank Rate; they may be equal to it, but they must not be above it.

If the interest rate is an increasing function of saving, the policy of ceiling the interest rate at a low level will discourage saving, of which one form is time deposits. This is a contradiction of the current policy of attempting to increase such deposits as these, particularly saving deposits.

It is, however, conceivable to accept the proposition that the policy of fixing rates may maintain a stable price of banking services,

and hence, it might affect the price level. Moreover, the policy of fixing interest rates in general may induce a constant state of expectation in the money market, and this may prevent adverse monetary consequences.

Making Tools of Monetary Policy More Effective

According to the experience of the monetary authorities of advanced countries such as the United States, one tool of monetary policy cannot be effective if the other tools are not working efficiently. For example, when the central bank sells securities in the open market in order to decrease money supply, Bank Rate should not be below the prospective yield on securities. If Bank Rate is below the prospective rate on securities, the central bank does not regulate the quantity of money because it decreases the money supply by selling securities in the open market operations, but banks can, however, acquire additional reserves by borrowing from the central bank and thereby circumvent the policy of open market sales. Similarly, if the central bank raises Bank Rate and at the same time decreases the statutory reserve proportions for the commercial banks, the increase in Bank Rate is not effective because it is offset by the reduction in the reserve requirements which enable banks to grant more credits to the public and hence, increase the money supply.

Thus, either open market operations and/or increases in reserve requirements is to be regarded as a strong supplement for making Bank Rate policy effective. It should be noted that the effectiveness of

one tool depends on the effectiveness of the other tools. Whenever there is a change in one tool for achieving a goal, the account should be taken of the present effect of the other tools, and whether or not they are supporting or offsetting this change. For example, the changes in the Bank Rate of the National Bank of Libya in 1957, 1960, and 1961 were absolutely ineffective, since the commercial banks enjoyed excess reserves. In the case of its current level, a five percent rediscount rate is not effective since excess reserves are available and the interbank loan rate is lower than five percent. It is more profitable to borrow from banks rather than borrowing from the central bank. Also, the rediscount rate is lower than the minimum rate charged on discounts and loans given to the public by the commercial banks. In situations like this, the commercial banks can make profit by borrowing from the central bank at a low rate and lending to customers at a higher rate of interest.

It should be noted that with the present level of reserve requirements, neither Bank Rate nor the reserve requirement ratio is effective in combatting inflation. The effectiveness of these two tools depends on absorbing the existing excess reserves. Finally, when open market operations begin, the other two tools of monetary policy in Libya become more effective.

CHAPTER VI

CONCLUSIONS

These conclusions are given in light of what has been discussed and analyzed in the previous chapters.

During all the period under consideration, monetary policy in Libya was characterized by a less-than-tight money policy. Commercial banks enjoyed excess reserves, and they could create more money by expanding credit. All the tools of the monetary policy in Libya, which could be applied, were not applied. These tools are Bank Rate, reserve requirements, and other selective credit controls. The process of the open market operation cannot be applied during this period since there was no organized securities market in Libya.

The legal reserve requirements were not effective, since the banking system enjoyed excess reserves, and the level of the legal reserve requirements was not felt by the commercial banks.

Bank Rate also was not effective because its effectiveness depends on the effectiveness of the legal reserve requirements. The commercial banks did not need to borrow from the Central Bank since they already enjoyed excess reserves. The interest rate in the organized money market was not flexible, but the price level in the commodity market was increasing by six percent per year. Consequently, with the interest rate ceiling at the level imposed by the Central Bank, it might produce

one percent or 1.5 percent of real rate of interest charged on secured and unsecured loans and a negative real rate of interest charged on saving and time deposits. Bank Rate was also negative. Because of the present interest rate ceiling, a continuous creeping inflation of six percent a year will make the interest rate in Libya too low and the Bank Rate not effective at its present level.

Monetary policy, in general, can be only effective if its tools work together and support each other. And in case of Libya, the effectiveness of the available two tools (Bank Rate and legal reserve requirements) depends on absorbing the existing excess reserves, and in addition if the security market becomes established, the previous two tools of monetary policy in Libya become more effective. These tools must work together to keep money supply down if curbing inflation is desirable. The main cause of inflation in Libya is the higher rate of growth of money supply than that of the real output, and the large factor responsible for this higher rate of growth of money supply is the higher rate of growth of net foreign assets. Consequently, to keep money supply down, net foreign assets must be regulated.

A stable price level can be attained if the equality of real income and money income is maintained. A higher rate of growth may be accomplished if the inflationary tendency is kept at a lower rate. With six percent inflation a year, the annual rate of growth is 12 percent, but with a lower annual rate than six percent inflation, the annual rate of growth will be higher than 12 percent.

BIBLIOGRAPHY

Books

Day, A. C. L., and S. T. Beza. Money and Income. New York: Oxford University Press, 1961.

DeKock, M. H. Central Banking. London: Staples Press Limited, 1954.

Dillard, D. The Economics of J. M. Keynes. New York: Prentice Hall, Inc., 1948.

Friedman, M. A Program for Monetary Stability. New York: Fordham University Press, 1960.

Haberler, G. Inflation, Its Causes and Cures. Washington, D. C.: American Enterprise Association, 1961.

IBRD Mission. The Economic Development of Libya. Baltimore: The John Hopkins Press, 1960.

National Bank of Libya, Economic Research Department. Inflation in Libya. Tripoli: 1961.

Neufeld, E. P. Bank of Canada Operations and Policy. Toronto: University of Toronto Press, 1958.

Articles

Cassel, G. "The Rate of Interest, The Bank Rate, and the Stabilization of Prices," Readings in Monetary Theory. Selected by F. A. Lutz and L. W. Mints. Homewood: Richard D. Irwin, 1951.

IMF, Staff Papers. "Money Supply and Imports" (May, 1961).

Patel, A. "Selective Credit Controls in Underdeveloped Economics." IMF Staff Papers, (September, 1954).

Smith, W. L. "Reserve Requirements in the American Monetary System," Monetary Management. Committee of Money and Credit. Englewood Cliffs: Prentice Hall, Inc., 1963.

Wai, U. Tun. "Interest Rates in the Organized Money Market of the Underdeveloped Countries," IMF, Staff Papers, Vol. 5 (February 1956-February 1957).

_____. "Interest Rates Outside the Organized Money Markets of Underdeveloped Countries," IMF, Staff Papers, Vol. 6 (November, 1957-58).

Laws

United Kingdom of Libya. Establishing the National Bank of Libya Law No. 30 of 1955 (July, 1955).

_____. National Bank of Libya, Royal Decree for the Banking Law, 1958 (November 20, 1958).

_____. The Banking Law No. 4 of 1963 (April 15, 1963).

Bulletins

Bank of Libya, Economic Research Department. Monthly Economic Bulletin (Nov.-Dec., 1963).

_____. Monthly Economic Bulletin (March-April, 1964).

_____. Monthly Economic Bulletin (May-June, 1964).

United Nations. Monthly Bulletin of Statistics (October, 1964).

Reports

National Bank of Libya. Sixth Annual Report of the Board of Directors (Tripoli: April, 1962).

_____. Seventh Annual Report of the Board of Directors (Tripoli: April, 1963).

Bank of Libya. Eighth Annual Report of the Board of Directors (Tripoli: April, 1964).

Thesis

Bottomly, J. A. "Agricultural Credit in Tripolitania" (unpub. Ph.D. thesis, University of Virginia, Charlottesville, 1961).

VITA

Nuri Abdussalam Baryun

Candidate for the Degree of

Master of Science

Thesis: MONETARY POLICY TRENDS IN LIBYA, 1956-1963

Major Field: Economics

Biographical:

Personal Data: Born in Tripoli, Libya, January 31, 1936, the son of Abdussalam M. and Fatuma Huni Baryun.

Education: Attended primary school in Tripoli and Teachers Training College in Tripoli; received Diploma of Teaching in Primary Schools, in June, 1953; graduated from Tarablus High School, in August, 1956; received the Bachelor of Science degree (in Commerce) from Ain Shams University, Cairo, Egypt, with a major in Accounting and Economics, in January, 1961; completed requirements for the Master of Science degree at Oklahoma State University, with a major in Economics, in May, 1965.

Professional experience: Worked as Primary School Teacher for three years; employed in the Economic Research Department of the Bank of Libya, as an Economic Officer, from August, 1960, through present date; attended the training program of the International Monetary Fund, in Washington, D. C., February-July, 1963; undergraduate work was a scholarship from the Ministry of Education of the Libyan government; graduate work was a scholarship from the Bank of Libya.