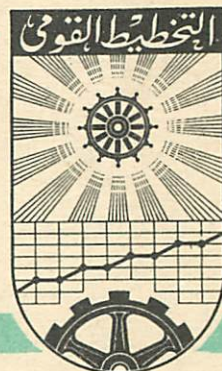


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Planning Financial Flows in
the Egyptian Banking Sector

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PLANNING FINANCIAL FLOWS IN THE
EGYPTIAN BANKING SECTOR

Introduction

The Egyptian banking sector was completely nationalized in 1961. A search is going on to establish the sector's mode of operation under the new circumstances. Resources mobilized and created by banks are to be utilized to serve social ends. Definitions of social goals are in most cases fluid. This affects in the same quality the operating rules designed by policy makers. Experience is gained and learnt by doing i.e., trial and error. This method of management cannot go on forever. Because market mechanism is suspected, resource allocation is effected by direct controls. The latter method entails differentiation among borrowers on non-price criteria. A priority scale for distributing resources is developed to dictate who gets funds first. Demand by borrowers on the bottom of the scale is satisfied according to

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availability of resources. Whatever the method of allocation, productions of supply of-and demand for- resources are prerequisites for scientific planning. Excess demand or supply can be trimmed by policy instruments. The level at which instruments are used depends on their impacts and the level of goals both in financial and real sides of the economy. This paper is elaborating a mode of operation for the Egyptian monetary policy in a market-like framework.

The paper is composed of two sections:

Section I: gives the institutional background and the financial position of the banking sector,

Section II: shows the mechanism of planning financial flows,

Conclusion : advocates a mutual interaction between physical and financial planning.

SECTION I : FINANCIAL FLOWS IN THE BANKING SECTOR

1.1. Institutional Background

The banking sector of the Egyptian economy consists of the Central bank, commercial banks, and specialized banks. A brief history of each component is due. The starting year will be 1898 when the National Bank of Egypt was established. The National

Bank of Egypt became known as the Central Bank in 1951. It was operating as a commercial bank as well as a Central Bank. This mixed character of activities was ended in 1961. As late as 1958, the Central Bank acquired the power to control money and credit. A full history of how the Bank became an independent institution goes hand in hand with the political and economic development of Egypt. The same can be said about commercial banks. Excluding Bank Misr (1920) and Bank of Cairo, all commercial banks operating in Egypt were owned by foreigners. The participation in ownership by nationals came with the Egyptization Act of 1957. The Nationalization Acts of 1960 and 1961 put an end to foreign ownership of commercial banks. The last component of the banking sector is the specialized banks whose operations comprise agriculture, real state, and industry. Unlike commercial banks, their number remained the same after the Nationalization Acts of 1961: an agricultural bank (1930), an industrial bank (1947), and 3 real state banks (the oldest goes back to 1880).

An intruding event came with the establishment of the Banking Association in 1961. The Association was a subordinate

institution to the Central Bank. It was mainly concerned with administrative tasks such as employment regulation in the banking sector. In spite of the fact that the administrative functions of the Association do not overlap with the technical function of money and credit control by the Central Bank, the existence of a dual supervising bodies was seen as unnecessary. In so far as the Association was deprived of the genuine function of co-ordinating credit policies of its subjects, it can be said that the event was a blind imitation of Public Associations created for non-banking activities. The Banking Association abolished after about 2.5 year and the Banking Relations Department of the Central Bank took over.

Administrative changes-as distinguished from ownership changes-came in 1964 and 1972. The year 1964 witnessed administrative allocation of banks to serve specific sectors. By then-after liquidation of some banks and affiliation of the rest into larger units-the banking system structure became as follows:

The Central Bank of Egypt,

5 commercial banks ,

3 real state banks ,

An industrial bank ,

An agricultural bank ,

While the sectoral allocation of specialized banks did not change, the sectoral operations of the five commercial banks were regulated in such a way that each bank deals mainly with specific sectors.¹⁾

The aims of such specification are :

1. to orient each bank with the activities of the sectors it deals with,
2. to contain the financial flows of non-banking sectors within the purview of the banking sector, and
3. to help planning the financial flows between the banking and non-banking-sectors.

Eight years elapsed till a new administrative allocation

1) Specification by Sector :

I. National bank of Egypt operates with:

- a. Associations under the control of the Ministries of Agriculture, Land Reform, Transport and Communications, and Defence.
 - b. Suez Canal Association.
 - c. Some activities of the Ministry of Supply.
- 2) Bank Misr operates with enterprises under the control of the Spinning and Weaving Association.
 - 3) Bank of Alexandria operates with Industrial Associations (and enterprises) excluding Spinning and Weaving enterprises.
 - 4) Bank of Port Said operates with:
 - a. Insurance companies.
 - b. Associations under the control of the Ministries of Health, and Supply & Local Trade.

of banks was introduced.¹⁾ The aims of the new change are not different from the old one of 1964. The only difference is that each bank should operate with a homogeneous economic activity such as industrial and foreign trade operations. This new change may pave the way towards a full-fledged specialized banking system a la socialist type.

1.2. Intrabank Financial Flows :

A common feature of the Egyptian banking sector is the relatively small operations of the specialized banks. If that is a common characteristic shared by most of developing countries, it is most obvious in Egypt. The first reason is that the socialist transformation gave rise to an increasing role of the national budget in financing economic development in particular long-term projects. The second reason of the small

5. Bank of Cairo operates with :

- a. Enterprises of the Foreign Trade Association.
- b. Associations under the control of the Ministries of Construction, Tourism, and Information.

It should be noted that banking operations in marketing of agricultural crops in particular cotton and rice were left without specification—they are common operations to all banks.

1) Specification by Activity :

1. National Bank of Egypt is specialized in Foreign Trade.
2. Bank Misr (and its affiliate : Bank of Port Said) is specialised in local Trade (including marketing of agricultural crops).
3. Bank of Alexandria (and its affiliate : The Industrial Bank) operates with Industrial and Agricultural enterprises.
4. Bank of Cairo is specialized in Services.

It is worth noting that the Specification by Activity extended to real State Banks. Two of the Real State Banks (L'Egypte Hypothecaire and its affiliate : Real State Credit Bank) are specialized in Housing and Construction.

scope of financial operations of specialized banks is the scarcity of financial resources mobilized by these banks owing to financial investment preference in the liquid range by the public. The result is that internal resources of finance are not sufficient to cover demand for credit from each type of these banks. Trials to raise funds by selling debentures to the public is out of question. The experience showed that such issues were covered by monetary institutions or by commercial banks with the guarantees of the Central Bank. Even the supplement of internal resources by debt issues fell short of the financial needs. The restriction of operations to the extent of internal resources of finance means a constriction of the role of these banks. This cannot be accepted in so far as other credit institutions cannot extend their services to the activities in the domain of specialized banks and at terms of credit specified by the Central Bank. There is an indispensable need to enrich the financial resources of specialized banks by other credit institutions : the Central bank and commercial banks. In this respect, Tables (1.1)-(1.3) provide data for real state banks industrial bank, and the agricultural bank respectively.

Each type of banks borrowed from the Central Bank and commercial banks. The reliance on loans from the Central Bank were most obvious till 1968. The loans from commercial banks became dominant in the last two years (1969 and 1970): the industrial and the agricultural bank replaced the loans of the Central Bank by resources of commercial banks. The latter resources are relied upon more by the real state banks. Throughout the period, the average percentage ratio of borrowed funds to total assets (or liabilities) is 19.1% for real state banks, 46.7% for the industrial bank, and 48.6% for

for the agricultural bank. Two important remarks are due. The first remark is that the claims of monetary institutions on specialized banks represent the demand by the latter for credit. This demand should be taken in consideration in planning the demand for credit on the national level. The second remark is a consequent of the first in so far as the monetary institutions will fully cater for the credit needs of the specialized banks (the difference between their internal sources of finance and credit granted by them), planning the supply of financial resources in the banking sector could be confined to monetary institutions.

Commercial banks are in a much better financial position than specialized banks. Table (14) shows that the outflow of transfers from commercial to the Central Bank and to other banks is larger than the opposite inflow during the period 1958-1966. This trend is reversed in the following three years. In 1970, outflows overgrew inflows once again. The borrowing of commercial banks from the Central Bank was pronounced during the period 1965-1970: the stock of borrowed funds increased from LE 82.7 million to 378.0 million. It should be noted that the reliance of commercial banks on loans (transfers) from the Central Bank means that commercial banks are in short of resources or/and they perform certain operations on behalf of the Central Bank. For the latter purpose, funds are entrusted to commercial banks. Whatever the interpretation, the net outflow from commercial banks to other banking institutions as a percentage of total assets (or liabilities) averaged 9.1% during the period 1958-1966. The percentage ratio of net inflow averaged 4.1% during the following

three years. It happened that during the years 1967-1969, monetary policy was deflationary. Any complaint of nowadays excess liquidity within commercial banks as a whole or within few of them is due to the lending policy of the Central Bank in deflationary years.

Table(1.1): Intrabank Financial Flows-
Real State Banks, 1958-1970

End of June	Inflow from		(Stocks in LE million)		
			(3)	(4)	(5)
	Central(1) Commercial(2)		Total	Total	(3) %(4)
	Bank	Banks	(1)+(2)	Assets	
1958	0.1	-	0.1	20.8	-
59	0.1	-	0.1	20.9	-
60	0.1	0.2	0.3	21.0	1.4
61	4.7	-	4.7	28.6	16.4
62	5.0	0.3	5.3	29.6	17.9
63	4.7	0.3	5.0	29.8	16.7
64	4.7	0.3	5.0	26.1	19.1
65	5.0	0.1	5.1	28.8	17.7
66	5.2	-	5.2	28.9	17.9
67	5.2	0.8	6.0	28.9	20.7
68	5.2	1.6	6.8	29.5	23.0
69	2.7	5.3	8.0	31.3	25.5
70	1.3	11.1	12.4	36.1	34.3

Source : Central Bank of Egypt - Credit and Financial Developments,
1967/68- 1969/70.

Table (1.2): Intrabank Financial Flows -

Industrial Bank, 1958-1970

(Stocks in LE million)

End of June	Inflow from		(3)	(4)	(5)
	Central Bank	(1) Commercial Banks	(2) Total (1)+(2)	Total Assets	(3)%(4)
1958	5.9	1.1	7.0	9.0	77.7
59	5.9	0.1	6.0	8.0	75.0
1960	6.9	0.1	7.0	9.2	76.0
61	6.9	-	6.9	12.7	54.3
62	6.3	-	6.3	12.3	51.2
63	6.1	-	6.1	12.1	50.4
64	5.6	-	5.6	11.6	48.2
65	5.0	-	5.0	10.7	46.7
66	5.4	-	5.4	11.8	45.7
67	7.9	0.9	8.8	14.8	59.4
68	4.0	6.1	10.1	16.6	60.8
69	-	7.3	7.3	18.6	39.2
70	-	5.8	5.8	18.1	32.0

Source :

Central Bank of Egypt - Credit and Banking
Developments, 1958-1970.

Table (1.3) : Intrabank Financial Flows-

Agricultural Bank

(Stocks in LE million)

End of June	Inflow from		(3)	(4)	(5)
	Central (1) Bank	Commercial (2) Banks	Total (1)+(2)	Total Assets	(3)/(4)
1958	11.8	-	11.8	65.8	18.0
59	24.6	0.4	25.0	72.8	34.3
1960	30.9	1.3	32.2	78.8	40.8
61	24.6	1.5	26.2	78.9	33.0
62	38.4	14.3	52.7	121.6	43.3
63	42.2	29.8	72.0	128.2	56.1
64	36.8	46.0	82.8	151.7	54.5
65	33.4	74.0	107.4	181.7	59.1
66.	46.8	64.7	111.5	188.8	59.0
67	16.2	69.4	85.6	166.8	51.3
68	36.4	74.4	110.8	190.1	58.2
69	-	123.0	123.0	196.8	72.4
70	-	130.7	130.7	177.6	73.5

Source :

Central Bzmk of Egypt - Credit and Banking Developments,
1967/68 - 1969/70 .

Table (1.4) : Intrabank Financial Flows-

Commercial Banks, 1958-1970

(Stocks in LE million)

End of June	Inflow from		Total (3) (1+2)	Outflow to		Total (6) (4+5)	(7) Net flow	(8) Total	(9) (7)%(8)
	(1) Central Bank	(2) Spec. Banks		(4) Central Banks	(5) Spec. Banks				
1958	1.9	12.1	14.0	44.4	10.8	55.2	41.2	301.6	6.8
59	1.4	17.4	18.8	51.7	15.4	67.1	48.8	328.2	14.7
1960	11.7	14.8	26.5	58.4	14.3	72.7	46.2	392.1	11.7
61	9.4	22.6	32.0	64.5	20.6	85.1	53.1	524.5	10.1
62	5.0	26.5	31.5	74.3	35.5	109.8	78.3	548.5	14.2
63	26.1	28.0	54.1	88.9	46.6	135.5	81.4	617.3	13.1
64	82.7	27.2	109.9	102.0	68.1	170.1	60.2	794.9	7.5
65	153.6	20.1	173.7	99.2	93.9	193.1	19.4	888.3	2.1
66	187.6	31.9	219.5	136.8	97.8	233.6	14.1	994.5	1.4
67	224.5	33.3	257.8	128.4	92.3	220.7	-37.1	1016.7	-3.6
68	272.0	11.2	283.2	134.8	85.1	219.9	-63.3	1106.0	-5.7
69	333.0	15.3	348.3	161.7	149.8	311.5	-36.8	1257.1	-2.9
70	378.0	7.4	385.4	241.3	151.7	393.0	+ 7/6	1410.5	+0.5

Source : Central Bank of Egypt - Credit and Banking Developments, 1967/68-1969/70.

* Net outflow (+) and Net Inflow (-).

1.3 Financial Position of Monetary Institutions :

Intrabank financial flows indicated the extent to which monetary institutions support specialized banks. Claims of monetary institutions on specialized banks are relatively very small compared with claims on other sectors of the Egyptian economy. The study of the financial position of monetary institutions toward non-banking sectors will consequently disclose among other things the extent to which the banking sector contributes to economic development. The non-banking sectors which deal with monetary institutions are three :

1. Private Sector defined as households, private business enterprises, and public business enterprises.
2. Government Administration Sector defined as Ministries, Associations of public business enterprises, and self-administrative government Organizations (e.g. railways).
3. Rest of the World Sector defined as exporters and importers.

It should be noted that what is called private sector includes enterprises of the government business sector. The financial position of monetary institutions towards each sector is arrived at by deducting deposits from claims. Claims are composed of loans and securities held by banks. For the rest-of-the-world sector, claims are represented by foreign assets held by banks and are valued in local currency. Tables (1.5) and (1.6) are worked out on the above basis. The first table gives data in stock terms and

the second in flow terms.

Claims on the private sector in the form of loans is the dominant component of total claims on that sector, the percentage ratio averaged 92.5%. On the contrary, the dominant component of total claims on government is in the form of securities issued by government and held by banks, the percentage ratio averaged 89.6%. A persistent upward trend is observed for total claims on both sectors. The trend is more paramount for claims on government. Fluctuations in deposits characterize government deposits while those of the private sector show a continuous upward movement. Lastly, claims on the rest of the world dwindled continuously during the period 1959-1968. Minus claims appeared afterwards. Apart from trends fluctuations and relative importance of certain components of claims-the financial position of monetary institution can be summarized as follows; monetary institutions are net borrowers from private-and the rest of the world-sectors, and net lenders to the government sector. In flow terms, Table (1.6) figures the above conclusion.

The previous sketch of the financial position of the monetary institutions can shed light-in Expost sense-on two topics :

1. Contribution of the banking sector in financing development and
2. responsibility of non-banking sectors in generating the supply of financial resources is the banking sector.

The rest of this section is devoted to that end.

It has been shown that monetary institutions are net lenders to the government sector. It can be seen from data provided in

Table (1.6) that funds transferred to government are originally those of the private and the rest of the world-sectors. Extra funds are created by monetary institutions to help closing the financial gap of the government sector. Funds transferred to the government amounted to LE 771.7 million during the period 1960-1970. Total domestic savings during the same period reached LE 2787.0 million. If one takes the ratio of mobilized/transferred funds to total domestic savings as an indicator of the real basis of financial intermediation, the average ratio amounts to 27.6%. There is no doubt that the ratio suffers from errors in basic data as well as the effects of inflationary finance.

Inflationary finance is an intricate subject of research. It is difficult to calculate the share of inflationary finance in closing the financial gap of the public sector by monetary institutions. A hybrid of genuine savings and inflationary sources are used. The existence of the latter sources can be revealed by the share of public debt held by monetary institutions. Of the stock of public debt, the ratio held by banks ranged between 63.0% in 1959/60 and 84.2% in 1966/67. Treasury bills are a main component of public debt.

Government financial assets were utilized by the Central Bank as a counterpart to increase means of payments - in particular fiat money. In this respect, the responsibility of the private- and the rest of the world-sectors are weak for the following reasons:

1. The private - and the rest of the world-sectors are net lenders to banks,
2. demands for credit by households and private business enterprises are considered only after the satisfaction of credit demands by public business sector, and .

3. deflationary tendencies are exerted by the rest of the world sector as revealed from the continuous decrease of foreign assets held by banks.

The villain is the government sector.

The demand for credit is a demand for financial resources generated in the banking sector. Financial resources comprise fiat money, current deposits, and quasi-money. If a supply schedule is specified, the determination of a market for financial resources of the banking sector needs a parallel specification of a demand schedule. The ingredients of the demand schedule are specialized banks and non-banking sectors. In so far as monetary institutions will fully close the financial gap of specialized banks, the first component of demand can be considered as exogenous. Equilibrium or disequilibrium in the market cannot be known until predictions of demand by non-banking sectors are made on the basis of their behavioural demand functions. The role of monetary policy is to trim market conditions in the light of preconceived targets of the central Bank.

The second section suggests a framework for planning financial flows is the banking sector.

Table (1.5): Credit (+)/Debit(-) Position of Monetary
Institutions

Towards Non-Banking sectors, 1969-1970

(Stocks in LE million)

End of year	Private Sector				
	Claims				
	(1) Loans	(2) Securities	(3) Total	(4) Deposits +	(5)* Financial Position (3) - (4)
1959	239.7	11.7	251.4	313.4	62.0
1960	241.3	14.5	255.8	305.7	49.9
61	249.4	12.9	262.3	328.5	66.2
62	270.9	20.2	291.1	353.2	62.1
63	293.6	23.5	317.1	403.1	86.0
64	305.0	24.1	329.1	446.8	117.7
65	312.0	25.6	337.6	470.5	132.9
66	305.9	26.8	332.7	490.8	158.1
67	295.2	28.6	323.6	533.9	210.1
68	328.5	31.3	359.8	553.5	193.7
69	365.2	32.3	397.5	575.3	177.8
70	358.6	34.9	393.5	604.3	210.8

Cont. on P. (18).

Table (1.5): Credit (+) /Debit (-) Position of Monetary
Institutions
towards Non-banking sectors, 1969-1970
(Stocks in LE million)

Government Sector					
(6) Bonds	(7) Treasury Bills	(8) Others ⁺⁺	(9) Total (6+7+8)	(10) Deposits ⁺	(11) Financial Position (9-10)
41.1	175.0	53.0	269.1	65.8	203.2
111.6	185.0	54.0	350.6	77.4	273.2
147.9	198.0	57.1	403.0	76.3	326.7
197.8	200.0	66.0	463.8	60.0	403.8
264.3	275.0	74.1	613.4	81.1	532.3
(667.2)		83.8	751.0	128.9	622.1
(748.6)		89.5	838.1	139.4	698.7
(827.4)		91.2	918.6	102.4	816.2
(913.4)		84.5	997.9	106.2	891.7
(938.5)		85.5	1024.3	98.9	925.4
(871.2)		88.0	1059.2	102.0	957.2
(1100.9)		92.0	1192.9	119.9	1073.0

+ Cont. on P. (19)

Table (1.5): Credit (+) Debit (-) Position of Monetary
Institutions
towards Non-banking sectors, 1969-1970

(Stocks in LE million)					
Rest of the World Sector					
Deposits					
(12) Net Foreign Assets	(13) Clearing A/c	(14) Counter- fund (U.S.A.)	(15) IMF	(16) Total	(17) Financial Position (12-16)
126.0	54.1	26.3	9.7	90.1	+ 35.9 (-)
112.0	49.1	53.8	18.5	121.4	9.4
99.3	63.2	48.9	17.6	129.1	29.8
56.5	56.6	67.8	37.5	161.9	105.4
54.9	47.3	101.5	44.0	192.8	137.9
46.7	53.0	108.8	48.5	210.3	163.6
10.6	33.4	113.2	44.9	191.5	180.9
(-)					
50.9	26.9	130.7	37.8	195.4	246.3
68.3	33.6	131.4	39.1	204.1	272.4
61.3	44.7	143.4	38.9	227.0	288.3
79.3	43.3	145.7	31.6	220.6	299.9
126.4	41.5	145.8	33.8	221.1	347.5

Source : National Bank of Egypt-Economic Review (different
issues).

+ Current, time, Savings, and banking post office-deposits.

++ Includes counterfund for coins and government post office
deposits.

Table (1.6) : Credit (+)/ Debit (-) Position of Monetary
Institutions towards Non-banking Sectors, 1960-1970

(Flows in LE million)

End of Year	(1) Private Sector	(2) Rest of the World	(3) Total (1)+(2)	(4) Government sector
		(-)		(+)
1960	+22.1	45.3	-23.2	69.9
61	-16.3	20.4	-36.7	53.5
62	+ 0.1	75.6	-75.5	77.1
63	-23.9	32.5	-56.4	128.5
64	-31.7	25.7	-57.4	89.8
65	-15.2	17.3	-32.5	76.6
66	-25.2	65.4	-90.6	117.5
67	-52.0	26.1	-78.1	75.5
68	+16.4	15.9	+ 0.5	33.7
69	+15.9	11.6	+ 4.3	31.8
70	-33.0	47.6	-80.6	115.8

Source:

Table (1.5).

SECTION II. PLANNING FINANCIAL FLOWS IN THE BANKING SECTOR

For planning financial flows in the banking sector, it makes no difference whether banks are classified by sector or by activity. The first two aims of managing the activities of banks are secured (of P. 5). The third aim is the core of the problem. A step toward this aim was taken in 1966. That was the introduction of the Unified Accounting System confined in its application to public business enterprises. The accounting system undoubtedly facilitates the flow of unified information - in particular the financial accounts of business enterprises - to all units of the banking sector. EX Ante financial plans prepared by public business enterprises and submitted to banks (irrespective of their accuracy) are useful indicators of financial flows in or out of the banking sector. Similar information are lacking for other dealers with banks: households & private business enterprises and the rest of the world. It is the task of the Central Bank to document such information and to work out prediction of financial flows in the banking sector. This section outlines a framework in this regard.

We start with the supply side of financial resources.

II.I Supply of Financial Resources

Supply of financial resources is mainly a function of financial investment preference of the public (including government business enterprises). In section I, it has been shown that a market for securities is hardly existent outside the purview of the banking sector. Intrapublic sector financial flows are not easy to quantify or control. It can be said that financial investment of the public is highly liquid in the form of demand - and savings - deposits. The ability of banks to supply financial resources is increased the larger are the flows of public funds to the banking sector. On the other hand, the larger the ratio of currency in the hands of the public to deposits, the more that ability is limited. The flow of currency between commercial banks and the Central Bank represents a second determinant of EX Ante supply. The larger the ratio of currency to deposits which the Central Bank demands, the less is the flow of supply. Thus for planning the supply side, a set of predictions are required:

1. The volume of public's deposits (D),
2. The ratio of currency to deposits held by the public
(K), and
3. The ratio of currency to deposits demanded by the
Central Bank (M)

The first two sets of predictions are schedules of preferences. The last set is a policy instrument determined by the Central Bank to set the flow of fiat money and sequently the supply of financial resources of the banking sector. This set of prediction is dealt with later.

The public's demand for deposits is dependent on its disposable income. Disposable income is arrived at by deducting the following items from GNP:

1. Net resources of the government (taxes minus subsidies)
2. Surplus of public business enterprises and
3. Forced savings in the form of pension and insurance.

To cater for the part of savings in the form of deposits held by government business enterprises, a second explanatory

variable is the surplus of government business enterprises.

The two explanatory variables represent the scale variable in the demand function for deposits. Substitutional effects can be revealed by a vector of interest rates: own rate and opportunity costs. However, prices will be ignored for the moment.

So, the public's demand function for deposits can be formulated as follows:

$$D_p^b = \alpha_0 + \alpha_1 Y_{dis} + \alpha_2 S_{ge} \quad (1)$$

where D_p^b = deposits held by the public (lower letter) and entrusted to banks (upper letter), Y_{dis} = disposable income (private sector) and S_{ge} = Surplus of government enterprises.

The second set of prediction is dependent on two magnitudes; currency and deposits. The demand schedule for deposits is provided above. The demand for currency (M) can be considered simply as a function of GNP (Y) a la cambridge equation as follows:

$$M_p^b = KY \quad (2)$$

Where M_p^b = currency held by the public and issued by banks.

Financial resources in the banking sector are not confined to currency and deposits of the public. There are other two holders of deposits: the government (D_g^b) and the rest of the world (D_f^b). The easiest treatment is to consider both as exogenous. However, a behavioural function for each component will be provided. For government, the main determinant is the net revenues of the government taxes (T) minus subsidies (A). For the rest of the world, the main determinant is a composite variable standing for credit facilities. This variable can be compiled by deducting from the balance of trade (commodities and services) the sum total of sources of financing that balance other than credit facilities. Respectively, the demand for deposits by the government and by the rest of the world are formulated as follows:

$$D_g^b = \beta_0 + \beta_1 (T - A) \quad (3) \text{ and}$$

$$D_f^b = \gamma_0 + \gamma_1 (E - X - I_f) \quad (4)$$

Where E = exports, X = imports, and I_f = long-term foreign capital inflow.

An aggregate supply function incorporates components of supply:

$$(SF)_b = (D_p^b + M_p^b) + D_g^b + D_f^b \quad (5)$$

Where $(SF)_b$ = supply of financial resources in the banking sector.

II.2. Demand for Financial Resources⁽¹⁾

Dealers with banks who are responsible for generating financial resources in the banking sector are also demanders of funds from banks; the public, government, and rest of the world. On the outset, demand for credit by specialized banks (C_b^{sb}) will be considered exogenous for reasons mentioned before (cf: P. 16). An endeavour is worked out to split the demand function for financial resources by the public into two subfunctions: one for the demand by government business enterprises and the other for households and private business enterprises. The first reason is that a vector of determinants can be distinguished for each component. The second reason is that the bulk of granted credit goes to government business enterprises. However, it should be remembered that data concerning deposits held by -- and credit

(1) Demand for financial resources is used synonymously as demand for credit.

granted to - government business enterprises are amalgamated with the two similar items pertaining to households and private business enterprises. This remark is recurring later on. The purpose of this subsection is to formulate a demand function for credit by each non-banking sector, provide an aggregate demand function, and interweave the demand and supply sides of the market for financial resources into a planning framework. Before starting with the demand function for credit by government business enterprises, a documentation on the dual concept of Authorized and Utilized credit is given.

Each unit of the banking sector is authorized by the Central Bank to supply a certain volume of credit to specific borrowers in specific sector or activities (cf: Specification by Sector and Specification by Activity). This authorized volume of credit can be labeled then Ex Ante supply or demand. How Ex Ante supply or Ex Ante demand is quantified is nowhere known in published banking documents. It is only known that the needs of the administration and the government business enterprises get priority in distributing banking credit.

However, errors in planning are revealed in the market in the form of excess demand or excess supply. The available data pertaining only to credit facilities during the period 1959-1967 as shown in Table (II.1), indicate that there is more or less compliance between authorized and utilized credit granted by specialized banks and the Central Bank. Excess demand for or excess supply of credit facilities from commercial banks is revealed throughout the period. In average, disequilibrium amounts to 60.4%. For the banking system as a whole - including specialized banks - the average amounts to 56.8%. It would have been very helpful to know in what sector or activity disequilibrium reveals itself - at least to know where the errors of predictions are most occurrent. In this respect, available data as shown in Table (II.2) are in short. On the level of commercial banks: there are two probabilities and the choice between them is difficult to state. The first probability is that a voluntary shift backward in the demand schedule for credit facilities took place throughout the period. Excess supply is the consequence. The second probability

is that commercial banks were not able to satisfy demand for credit. Excess demand is the result and credit rationing was applied. This probability does not exclude the case that some commercial banks experienced excess liquidity. At the same time, intracommercial banks transfers did not nullify excess demand. Whatever the case, the administrative specification by sector cannot be blamed for malplanning.

It is left to be shown that credit facilities are not a meagre portion of total claims of the banking sector. Table (II.3) shows the percentage of credit facilities to total claims. On the average, credit facilities represent 33.2% of the stock of total claims. The percentage rockets higher if imposed investment in portfolios are excluded from total claims. The conclusion to be considered is that proper planning of the market for financial resources of the banking sector will help narrowing the disequilibrium gap.

Demand for banking credit stems from the absence or/and higher cost of other sources of finance. The flow of information

on the financial position of borrowers are crucial in predictions of demand. National Accounting System and Financial Flows Tables are indispensable in this regard. It is out of question that the Central Bank should show an immense interest as to the accuracy and uptodateness of that information system - not to say making use of it. Statistics on short-and long- term credit are just an aspiration. Determination of credit to households and private business enterprises are required instead of mixing them up with credits to government business enterprises in one category; Claims on Private Sector. Until time is ripe for adopting such elementary steps, predictions of demand are practically informed guesses.

Leaving aside aspirations and refinements, what is suggested in the following demand fuctions is that each non-banking sector exhibits a certain behaviour in demanding credit from banks.

Table (II I): Distribution of Credit Facilities by Type of

Banks 1958-1967

(Stocks in LE million)

End of June	Commercial Banks		Specialized Banks		Central Bank		Total	
	A ⁽¹⁾	U ⁽²⁾	A ⁽³⁾	U ⁽⁴⁾	A ⁽⁵⁾	U ⁽⁶⁾	A ⁽⁷⁾	U ⁽⁸⁾
							(1+3+5)	(2+4+6)
1958	364.7	162.8	18.2	16.7	24.2	9.8	407.1	89.3
59	385.2	161.6	17.1	16.7	21.3	11.6	423.6	189.3
1960	451.4	211.2	28.7	26.6	29.1	19.1	509.2	256.9
61	527.5	238.3	33.2	31.7	13.4	13.4	574.1	283.4
62	623.0	248.0	47.8	46.1	15.1	15.1	685.9	309.2
63	731.2	310.1	48.0	47.1	16.2	15.1	795.4	372.3
64	819.3	256.7	32.4	31.4	16.3	15.9	868.0	304.0
65	890.5	350.8	46.6	45.1	15.9	15.9	953.0	411.8
66	971.0	357.0	45.3	37.9	14.7	14.7	1031.0	409.6
67	963.6	358.1	60.5	53.7	13.4	13.4	1037.5	425.2
Average	670.2	265.5	37.8	35.2	18.0	14.4	728.5	315.1

Source: Central Bank of Egypt - Credit and Banking developments, 1962/67

A = Authorized, and U = Utilized.

Table (II.2): Distribution of credit Facilities by Type
of Economic Activity, 1959-1967

(Stocks in LE Million)

End of June	(1) Agriculture	(2) Industry	(3) Commerce	(4) Services	(5) Others	(6) Total Used	(7) Total Authorized	(8) (6)%(7)
1959	4.1	78.8	78.1	11.0	17.3	189.3	423.6	44.6
1960	13.7	115.4	94.8	12.2	20.8	256.9	509.2	50.4
61	13.1	127.1	108.3	13.8	21.1	283.4	574.1	49.3
62	25.0	146.8	88.3	22.0	27.1	309.2	685.9	45.0
63	28.3	177.4	115.9	23.4	27.3	372.3	795.4	46.8
64	13.8	168.8	76.1	19.8	25.5	304.0	868.0	35.0
65	27.7	192.0	134.0	26.0	32.1	411.8	953.0	43.2
66	20.2	193.5	126.9	39.3	29.7	409.6	1031.0	39.7
67	32.5	225.7	118.3	30.0	18.7	425.2	1037.5	40.9

Source: Central Bank of Egypt - Credit and Banking Developments, 1962/67.

Table (II 3): Percentage of Credit Facilities/Total Ctal Claims Granted
by the Banking System, 1959/1967.

(Stocks in LE Million)

Year	Monetary Institution			Specialized	Banking system		Credit Facilities/ Total Claims (6)%(5) ++
	Claims on Private Sector (1)	Claims on Govern- ment (2)	Total (3) Claims (1)+(2)		Total (5) Claims* (3)+(4)	Credit (6) Facilities	
1959	251.4	269.1	520.5	48.4	568.9	189.3	33.2
1960	255.8	350.6	606.4	54.8	661.2	256.9	38.8
61	262.3	403.0	665.3	68.3	733.6	283.4	38.6
62	291.1	463.8	754.9	95.3	850.2	309.2	36.3
63	317.1	613.4	930.5	101.5	1032.0	372.3	36.0
64	329.1	751.0	1080.1	102.5	1182.6	304.0	25.7
65	337.6	838.1	1175.7	120.7	1296.4	411.8	31.7
66	332.7	918.6	1251.3	123.9	1375.2	409.6	29.7
67	323.8	997.9	1321.7	128.6	1450.3	425.2	29.3

Source: Central Bank of Egypt - Credit and Banking Developments, 1967/68-1969/70.

+ Stocks of claims in the form of portfolio are given in Table (I.5).

++ Percentages are calculated on gross basis i.e., intrabanking transfers are ignored. While it is possible to delineate transfers from the central Bank to Commercial banks and the transfers from monetary institutions to specialized banks, it is impossible to calculate credit facilities on a net basis.

Demand for credit by public business enterprises is associated with operating and investment needs. Operating needs are revealed by income expenditure statements of the enterprises.

An excess of expenditure over income reflects a financial gap to be covered by indigenous transfers or/and non-operating revenues.

Transfers and non-operating revenues are a buffer-stock against financial emergencies. They perform the same function as precautionary liquidity held by enterprises. If periodical revenues are not synchronized with periodical expenditure, temporary needs for credit arises.

The ability to pay such credits depends on the final results of the operating stage. Over a given period, outstanding credits reveal the need of the operating stage to borrowed funds. A catch-up variable to be associated with such need is the operating volume quantified as production volume. As for investment needs, borrowed funds are supposed to be positively correlated to investment volume and negatively with undistributed profits. Taken together and assuming that borrowed funds from outside the banking system are nil, the demand for credit is a function of these variable:

1. Production volume
2. Investment volume, and
3. Undistributed profits.

The specification of only these variables as determinants is imposed by the availability of data. Production volume will be denoted by (V_{ge}) investment of government business and enterprises by (I_{ge}) , and undistributed profits by (P_{ge}) , and demand for credit by this sector will be referred to as (C_b^{ge}) . Thus, the demand function can be specified as follows:

$$C_b^{ge} = \delta_0 + \delta_1 V_{ge} + \delta_2 I_{ge} + \delta_3 P_{ge} \quad (6)$$

Demand for credit by government administration (C_b^g) can be specified as a function of tax yields (T) and government consumption (C_g). Government consumption represents the bulk of expenditure to the extent that investment expenditure can be ignored. (In fact, the burden of investment is carried out by government business enterprises) However meager the investment of the administration (I_g), it will be considered as a determinant. Theoretically, demand for credit is positively related to expenditure $(C_g + I_g)$ and inversely

related to tax yields.

So the second demand function can be specified as followed:

$$C_b^g = \epsilon_0 + \epsilon_1 T + \epsilon_2 (I_g + C_g) \quad (7)$$

The demand function for credit by households and private business enterprises can be specified as for government business enterprises. Only, one should account for credit to finance consumption of the households. In other words, household consumption (C_h) is added to the list of other variables; volume of production (V_{pe}), investment (I_{pe}). But since financial gap in the households and private business enterprises occurs only when expenditure exceeds disposable income, the latter should also be added to the previous variable. A composite variable is defined as consumption and investment minus disposable income ($I_{pe} + C_h - Y_{dis}$) to cater for the financial gap. The more the gap, the more the demand for credit. The more the gap, the more the demand for credit.

So, the third function for credit can be specified as follows:

$$C_b^{h+pe} = \epsilon_0 + \epsilon_1 (C_h + I_{pe} - Y_{dis}) + \epsilon_2 V_{pe} + \epsilon_3 p_{pe} \quad (8)$$

The last component of demand is that by the rest of the world. The dependent variable is foreign assets held by banks.

In the final analysis, the flow of foreign assets out or into the banking sector is dependent on the financial position of the balance of payments. The experience in Egypt shows that foreign assets were used as a source of financing deficits in the balance of payments (of: p. 19). Other sources of financing the deficit are long-term foreign capital inflow and credit facilities. Thus a composite explanatory variable can be arrived at by deducting from the trade balance ($E - X$) both long-term foreign capital inflow (I_f) and credit facilities (D_f^b). Claims on the rest of the world can be considered as proportional to the above composite variable. Thus, the function for credit demand by the rest of the world can be formulated as follows:

$$C_b^f = \pi [E - X - I_f - D_f^b] \quad (9)$$

An aggregate demand for credit function incorporates components of demand:

$$(DF)_b = C_b^{ge} + C_b^g + C_b^{h+pe} + C_b^f + C_b^{sb} \quad (10)$$

Where $(DF)_b$ = demand for financial resources of the Banking sector, and C_b^{sb} = demand for credit by specialized banks from monetary institutions.

The important question now arises. How useful is the underlining of the problem in a market framework. The framework is useful so long as it provides means for rational allocation of resources. Applying this criterion will show that the mechanism of supply elucidates how financial resources are generated. A cost factor can be considered explicitly in predictions of demand for deposits and currency. The cost is a hybrid of interest rates paid on deposits and the opportunity cost of holding currency by the public. As is well known, the cost should be lifted up by banks in order to decrease the ratio of currency to deposits held by the public. The reward is that the mechanism of supply depends more on genuine savings rather than on fiat money. Obviously the supply mechanism can generate a supply price of resources.

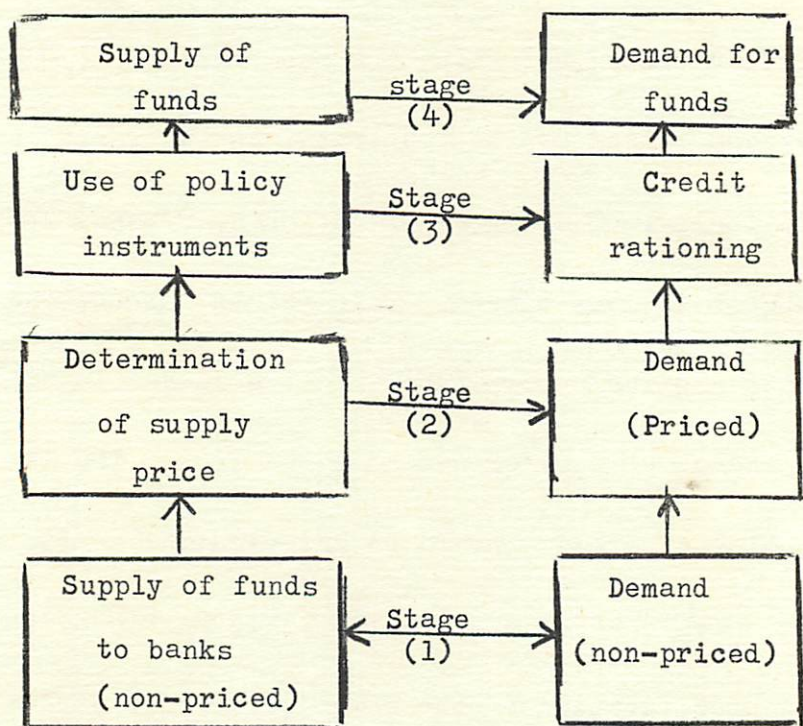
On the demand side, functions have been specified intentionally without prices. Prediction of demand can proceed on the basis of nonprice determinants. Total demand is then compared with total supply in order to gauge the extent of excess demand or supply. Excess

supply can be frustrated by adjusting the reserve ratio (M).

The resultant excess demand can be frustrated in two ways: by cost or/and credit rationing. The degree of rationing depends upon the extent to which cost affects demand. This points out the indispensable need to incorporate a price determinant into the demand functions. The price should be the same wherever demand comes from. The implication is that distribution of credit should be price-guided in the first place. Credit rationing takes care of the priority scale mentioned before. In other words, the specification of the demand side of a market discloses two needs for rational allocation of credit:

1. The supply mechanism should generate a tentative supply price for credit, and
2. Credit rationing will supplement price mechanism.

The above mechanism is summarized in the following diagram:



The diagram is best understood if viewed as a circle divided into two halves. The righthand half depicts stages of determining demand. The lefthand half depicts stages of determining supply. In stage (1), the banking system is receptive; it forms estimates of demand for credit and supply of savings in the form of demand - and time-deposits (without consideration of debit/credit costs). The supply price is determined in stage (2) on the supply side. This price is feeded to demand side to form estimations of the influence of credit cost on demand - hence the determination of demand taking

in consideration prices. In stage(3), the Central Bank should decide the degree of credit rationing in the light of information given in stage (2) as well as the levels it sets for reserve ratio. Equilibrium is ensured automatically in stage (4) even if there is differential setting of prices or/and credit rationing by sector.

Differential treatment can be seen both in a capitalist and in a socialist economy. The technique of credit rationing caters for such discrimination among borrowers and frustrating excess demand. Excess demand can be eliminated by higher costs or/and non-price conditions of credit such as dear collateral, short period of repayment, and small size of loans. This phenomenon is paramount in a mixed economy in which government and private economic units compete for scarce credit of the banking system. It is correct to argue that certain borrowers, sectors, or activities should get credit cheaply and easily. The specification of these preferred clients are subject to political and economic criteria. Interference of criteria excludes

any setting of a shadow price applicable to borrowers without differentiation.^{*} In so far as the above is pragmatic, one is confronted with a set of supply prices for credit. However, the determination of each component of such a set should revolve around a realistic price of credit. At any case, the line of argument is that the suggested framework is viable with different supply prices.

Conclusion

An intergral part of planning financial flows on the sectoral level is to plan flows in each bank separately. The suggested framework is still useful in this regard. Since excess or shortage of resources on the unit level is expected to take place owing to specification rules, intra-banks transfers should be regulated by the Central Bank in order to realize targets of planning the sector as a whole. Sectoral targets are an intergral part of national targets.

(*) A pure market mechanism is in work in case the market for credit is cleared only by price. If demand and supply schedules are specified, statistically tested, and are stable-solution of the equilibrium condition will yield a shadow price for credit.

The latter are realized by designing different policies for real and financial sides of the economy. The Egyptian experience shows that financial phenomenon does not only depend on the real phenomenon, but also follows it.⁽¹⁾ In other words, the causal relationship runs from the real to the financial, not vice versa. This state of affairs means that the financial planner assumes a passive role in policy making. The indispensable need to finance part of investment by credit creation should be reconciled with stabilization needs in so far as investment is both a capacity - and demand - generating variable. No doubt, the performance of the short-run stabilization policy will affect the extent to which real per capita income is growing in longer time periods. The mutual interaction between the real and financial phenomena can be demonstrated by our suggested framework.

(1) El Sayed Nassef: "Interaction Between the Real and Financial Phenomena in the Egyptian Economy", Memo 1093. Institute of National Planning, Cairo.

The Central Bank is informed with developments of real variables (Exogenous). In so far as real developments will affect the banking sector, predictions of inflow/outflow of financial resources via the banking system are worked out. Conditions in financial markets will decide the extent to which the Central Bank could comply with conditions in goods markets, i.e. whether the Central Bank should follow an expansionary or deflationary policy. A passive role is not an interesting one. If an active role is assumed, targets on the real side of the economy can be made realistic in promoting economic growth.