

ARAB REPUBLIC OF EGYPT

THE INSTITUTE OF NATIONAL PLANNING



Memo No. 1093

Interaction of the real and Financial
Phenomena in the Egyptian Economy
(A Study in Methodology)

By

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February, 1975

CAIRO

SALAH SALEM St. NASR CITY

REGIONALIZATION
AS A TOOL OF
ECONOMIC POLICY
PART TWO

CHAPTER FOUR

THE TIME HORIZON OF PLANNING AND ITS IMPACT
ON REGIONALIZATION

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Interaction of the Real and Financial
Phenomena in the Egyptian Economy
(A Study in Methodology)^{*}

I. INTRODUCTION

(1)

In developing countries where the financial markets are backward, the financial expert contribution in policy making may be questioned. Monetary and financial theories are developed to suit highly developed economies in both real and financial sectors. However, the policy maker whether in developed or a developing economy is facing the same problem; how to use financial instruments to accelerate the rate of growth of real income? Traditional instruments to achieve this target are available. Nevertheless, the scope of using them are quite limited in developing countries owing to their well known characteristics. This does not mean that the financial expert in a developing economy is helpless. What is detrimental is not backwardness of financial markets but the lack of theory explaining how the real and financial sectors of the economy are linked:

1. What are the common economic variables which affect physical production processes on one hand, and monetary expenditure on goods and services?.
2. What are the variables which carry a decision from the real side to the financial side and vice versa?.

At the outset, it should be emphasized that an answer to the previous questions will not be found without discovering the causal relationship between statistically available real and financial variables with the object of showing "which follows which". It goes without

^{*} This paper has been submitted to the international seminar on problems of reproduction and national economic planning, Berlin, July 1974.

(1) Financial markets are, in most cases, confined to the institutional credit of banking system. To this extent, financial-and monetary - policy are synonymous.

saying that such a knowledge is needed to realize where to work out an instrument to affect real or/and financial activities of the economy.

This paper discusses the causal relationship between the real and financial phenomena in the Egyptian economy. The methodology explains the structure of the paper.

Section I is the introduction.

Section II documents income/expenditure flows of the main sectors of the economy over the period 1960/61 - 1969/70 to see how production, consumption, and investment activities affect their financial position-in particular towards the banking system.⁽¹⁾

Section III screens the development over time of some financial variables, in comparison with GNP as a catch-up variable on the real side of the economy. ⁽²⁾

Section IV evaluates the role of Egyptian monetary policy in the sixties in the light of real and financial developments.

II. FINANCIAL FLOWS STRUCTURE

The financial & income/expenditure flows structures have been worked out in another study.⁽³⁾ A condensed picture of the financial flows is reproduced in Table II-I. The final statistical results of that study shows that the public sector (government administration and business enterprise) is a net borrower from the private sector, rest of the world, and the banking system. The first column in Table II.I shows the initial financial position of the public sector taking into consideration the funds transferred by the foreign sector. The contribution of the private sector is not shown since it was assumed that surplus funds of the private sector are channelled via the banking

(1)&(2) See footnote (1), p. 1.

(3) El Sayed Nassaf: "Determinants of Monetary Policy in Egypt", Memo. 342 (Internal), Institute of National Planning (Cairo).

system: the savings of the private sector are trusted to the banking system and the latter transfers wholly or partly these funds to the public sector. To avoid double counting, the surplus funds of the foreign sector which are channelled via the banking system (column 2-Table II-I) increase the debted position of the public sector given as corrected debted position (column 3-Table II-I). This step is warranted since it was assumed that all the foreign sector transfers are channelled directly to the public sector without passing via the banking system. The transfers of the banking system to the public sector is what we are interested in.

It should be emphasized that the banking system transfers are more than savings entrusted to the system by both the private and the foreign sectors. Table II-2 shows the debit/credit position of the banking system towards the two net lenders sectors: the private and the foreign sectors. The difference between figures in column 3-Table II-2 and those of column 5-Table II-I shows the volume of banking credit which supports the public sector.⁽¹⁾ This banking credit which augments real savings is expected to have economic consequences.

III. INTERACTION BETWEEN THE REAL AND FINANCIAL PHENOMENA

Since national expenditure exceeds income generated from the production process and the banking system supports this state of affairs, it is expected that:

1. rates of change of means of payments (MP) move in the same direction (+) as the rates of change of real GNP,
2. rates of growth of (MP) exceeds rates of growth of real GNP, and
3. the difference between the two rates of growth tentatively gives the rate of increase of the general price level (GPL).

(1) Calendar figures of column 3-Table II-2 should be converted into fiscal years.

Table (II-I)

Equilibrium Financial Position of the Public Sector

1960/61 - 1969/70

(L.E. millions)

Year	Initial Financial position (1)	Foreign sector transfers via banking system (2)	Corrected balance (1)+(2) (3)	Social insura- nce trans- fers (4)	Banking system trans- fers (5)	Total trans- fers (4)+(5) (6)	diffe- rences (3) - (6) (7)
		(-)	(-)				
1960/61 +	18.6	32.8	14.2	0	61.7	61.7	47.5
61/62 -	21.6	48.0	69.6	0	60.3	60.3	9.3
62/63 +	41.2	54.0	12.8	0	102.8	102.8	90.0
(-)							
63/64	135.8	29.1	164.9	0	109.1	109.1	55.8
64/65	129.6	21.5	151.1	117.6	83.2	200.8	42.7
65/66	216.2	41.3	257.5	150.4	97.0	247.4	10.1
66/67	122.0	45.7	167.7	161.9	96.0	258.1	90.4
67/68	182.9	21.0	203.9	167.5	54.6	222.1	18.2
68/69	--	12.7	--	181.5	32.7	214.2	--
69/70	--	29.6	--	191.5	73.8	265.4	--

Source: Institute of National Planning (Cairo) - Memo. 342.
(Internal).

Table (II-2)

Credit (+)/Debit(-) Position of the Banking System towards
the Private Sector, Government, and the Foreign Sector,
1960 - 1970

(Flows in L.E. millions)

Year	Private Sector (1)	Foreign Sector (2)	Total (1) + (2) (3)	Government Sector (4)
		(-)	(-)	(+)
1960	+ 22.1	45.3	23.2	69.9
61	- 16.2	20.4	36.7	53.5
62	+ 0.1	75.6	75.7	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: National Bank of Egypt-Economic Bulletin. (Calculated from
the table entitled: Combined Balance Sheet of the Banking
System).

Estimates of annual product capacity⁽¹⁾ of the Egyptian economy are not available. Hence, the rate of increase in GPL cannot be calculated as mentioned in point (3) above. Only estimates of suppressed⁽²⁾ rates of change in GPL can be found as the difference between the rate of change in MP and monetary GNP. Table III-I shows the development over time of the above mentioned three variables (GNP, MP, GND). A basic remark is revealed by this table: both rates of change in MP and GNP follow the same direction over the whole period and from year to year. In the mean time, the rate of growth of MP exceeds that of GNP in only four years: 1960/61, 63/64, 66/67, and 67/68. This means that over and above the rate of increase in prices reflected by the index of GPL, the suppressed price increase should be added to get the actual change in prices. The opposite is true for the remaining years, i.e. the rates of change in prices are less than what are reflected by the GPL. This seems impossible.

One should not be hasty to conclude that our criterion for calculating suppressed price increases is wrong. The reason is that when national expenditure exceeds national income, effective demand is supported not only by MP but also by quasi-money (QM). Therefore, a soring of rates of changes in QM and GNP is needed similar to the one worked out between MP and GNP before saying anything about the content of any correlation among MP, QM, and GPL.

Table III-2 gives rates of change in QM.

Although rates of change in QM move in the same direction (+) as MP (hence GNP) from year to year, the rate of change in GPL does not follow the same course in most of years. So far, the evidence casts doubt on the usefulness of monetary criteria to discern suppressed inflation during the investigated period. This doubt can be justified for two reasons:

- (1) Annual product capacity is defined as the sum of real values added contributed by the factors of production engaged in the production process.
- (2) This calculated suppressed rate of change in the general price level has to be corrected for any change in the velocity of money circulation.

1. the official GPL is not accurate and suffers from out-of-date defects, and
2. most important, the Egyptian economy has not yet achieved a state of full employment so that the interrelation between GNP, MP, and prices can be applicable.

The failure of the monetary criteria to discern the existence of inflationary pressures in the Egyptian economy does not mean the barrenness of monetary theory. It is highly probable that a careful study of the interrelation between productivity, and remunerations of factors of production, in particular wages, could reveal pockets of inflation from the cost side. This is not our concern here and the price level will be dropped out from analysis in the rest of this paper.

Left with three variables (MP, QM, and GNP), a basic feature of the course of development of the Egyptian economy is prominent. The years 1961/62, 66/67, 68/69 have witnessed deflationary tendencies. To be decisive about this conclusion - seen partly from the drop of the rates of growth of the three variables in comparison with the rest of the years - the financial position of the public sector towards the banking system is provided in Table III-3. It is evident that the indebtedness of the public sector - which is mainly responsible for any excessive increase in liquidity during the sixties - is at lower level during the deflationary years.

IV. REACTION OF MONETARY POLICY

The reaction of monetary policy to inflationary or deflationary tendencies during the sixties is revealed by the use of monetary instruments. We confine ourselves to two instruments: discount rate and reserve ratio (and liquidity ratio). The reason is the futility of open market operations due to the nonexistence of a market for securities (private or governmental) outside the banking system. Table IV-I records the development of the monetary instruments.

Table (III - I)

Rate of Growth of GNP, Means of Payments, and the
General Price Level, 1960/61 - 1969/70.

Year	Means of payments (L.E.mil- lions)	Rate of Growth %	GNP (L.E. mil- lions)	Rate of Growth %	General Price Level	Rate of Change %	Suppressed Change in Prices %
1959/60	397.2		1372.0		100	-	-
60/61	430.1	8.2	1467.0	6.9	100.5	0.5	+ 1.3
61/62	449.1	4.4	1550.0	5.6	101.6	1.6	- 1.2
62/63	479.2	6.7	1679.0	8.3	100.5	- 1.1	- 1.6
63/64	566.0	18.1	1883.0	12.1	101.7	1.2	+ 6.0
64/65	634.4	12.0	2191.8	16.3	108.2	6.5	- 4.3
65/66	667.0	5.1	2388.2	8.9	117.3	9.1	- 3.8
66/67	693.5	3.9	2458.9	2.9	126.0	8.7	+ 1.0
67/68	713.1	2.8	2509.7	2.0	130.7	4.7	+ 0.8
68/69	733.4	2.8	2657.0	5.8	125.3	- 5.4	- 3.0
69/70	764.4	4.2	2926.9	10.1	130.5	5.2	- 5.9

Source:

- (1) Means of Payments: National Bank of Egypt - Economic Bulletin.
- (2) GNP : 1960/61-62/63: Hansen & Marzouk:
"Development and Economic Policy in
UAR (Egypt)", Amsterdam 1965.
1963/64-69/70: Plan Evaluation and
Follow-up Reports - Ministry of
planning.
- (3) General Price Level: Institute of National Planning
Cairo). Memo. 181. (Internal).

Table (III-E)

Rates of Growth of Quasi-money, 1960/61 - 1969/70

Year	Components of Quasi-money (L.E. Millions)			Total (1)+(2) +(3) (4)	Rate of growth % (5)
	Savings and time deposits (1)	Post Office savings (2)	Government savings (3)		
1959/60	85.1	37.9	67.7	190.7	-
60/61	87.6	40.1	91.2	128.9	14.7
61/62	95.4	43.6	88.8	227.8	3.1
62/63	134.6	51.5	67.6	253.7	11.3
63/64	167.1	59.1	81.6	307.8	21.3
64/65	177.4	67.9	121.7	367.0	19.2
65/66	191.5	74.1	136.2	401.8	9.4
66/67	187.9	75.5	108.5	371.9	- 7.4
67/68	208.2	69.5	103.2	380.9	2.4
68/69	226.8	69.4	102.0	398.2	4.5
69/70	254.7	72.4	106.8	433.9	8.9

Source: Central Bank of Egypt - Economic Review.

Table (III - 3)

Financial Position of the Public Sector Towards
the Banking System, 1960/61-1969/70

Year	Debted position (L.E. millions)	Rate of change %	year	Debted Position (LE millions)	Rate of Change %
1960/61	61.7	20.6	1965/66	97.0	12.8
1961/62	65.3	17.8	66/67	96.5	11.3
62/63	102.8	21.9	67/68	54.6	6.0
63/64	109.1	18.9	68/69	32.7	3.4
64/65	83.2	12.5	69/70	73.9	6.9

Source: Table (II - 2).

During the sixties the discount rate changed only once: in 1961/62 it increased by 2% above the level of 1960/61; it increased from 3% to 5%. This does not mean that this increase is the cause of the drop in the growth rates of GNP, MP, and PL in 1961/62. This can be seen from the fluctuations in the growth rates of the above variables while the discount rate remained constant at the level of 5% during the rest of the period. Consequently, it can be stated that the discount rate has not been effective as a monetary instrument during the sixties. One justification of such an increase in the discount rate is to correct some undesirable monetary events of the fifties. This is evidenced by the simultaneous increase in the reserve ratio from 5% in 1960/61 to 17.5% in 1961/62. To be decisive about the effectiveness of the discount rate change, a similar study to the one carried out here should be tried.

The legal reserve ratio remained stable at the level of 1961/62 (17.5%) till 1964/65. Then, it increased to the level of 20% in 1965/66 and remained stable at this level during the rest of this period. If we divide the sixties into two equal periods - the first five-year plan period (1960/61-64/65) and the 5-year period after-the drop in the rates of growth in GNP and MP over the second subperiod is observed, in particular during the deflationary years: 1966/67 - 68/69. Since the legal reserve ratio remained stable during the second subperiod, it is more accurate to correlate changes in GNP and MP with changes in the actual reserve ratio to explain the drop in the rates of growth. The increase in the actual reserve ratio during the second subperiod coincides with deflationary years.

Table (IV - 1)

Discount Rate, Reserve/Liquidity Ratios,

1959/60 - 1969/70

Year	Discount ratio	Reserve ratio		Liquidity ratio	
		Legal	Actual	Legal	Actual
1959/60	3	12.5	19.4	30	45.2
60/61	3	12.5	15.7	30	58.1
61/62	5	17.5	16.9	30	60.6
62/63	5	17.5	19.5	30	62.8
63/64	5	17.5	20.1	30	59.8
64/65	5	17.5	19.7	30	56.6
65/66	5	20.0	22.3	30	60.0
66/67	5	20.0	29.8	30	55.3
67/68	5	20.0	26.4	30	53.4
68/69	5	20.0	25.0	30	61.9
69/70	5	20.0	35.7	30	62.0

Source: A. Samy: "The Role of the S.A.E. Bank in Development During the sixties", A Research Paper, Institute of National Planning (Cairo) - 10th Long-Term Course.

Table (IV-2)

Rates of Gross Domestic Savings/Investment and Foreign
Finance, 1960/61 - 1969/70

(% of GDP)

Year	Investment	Savings	Foreign [*] finance	Savings/ Investment
1960/61	15.5	14.4	1.1	92.9
61/62	16.6	10.9	5.7	62.7
62/63	17.8	11.6	6.2	65.3
63/64	19.7	12.6	7.6	63.7
64/65	17.4	14.0	3.4	80.4
65/66	18.7	13.0	5.7	69.5
66/67	15.7	15.1	0.6	96.1
67/68	13.6	11.5	2.2	84.1
68/69	12.0	12.9	- 0.9	107.2
69/70	14.2	13.5	0.7	95.0

Source: National Bank of Egypt - Economic Bulletin, 1972.

* Foreign finance is equal to the trade balance
(goods and services).

Table (IV-3)

Rates of Production Growth%, 1960/61-1969/70.

Year	1960/	61/	62/	63/	64/	Year	1965/	66/	67/	68/	69/
Sectors	61	62	63	64	65	Sectors	66	67	68	69	70
Production	3.8	4.0	10.7	7.3	3.0	Production	5.3	-0.9	0.1	6.6	6.8
Distribution	13.8	3.0	6.2	4.9	6.3	Distribution	8.2	3.8	-17.2	4.3	7.4
Services	5.9	1.1	16.2	14.0	5.1	Services	6.8	2.4	-7.1	10.8	7.8
Average rate of growth	7.8	2.7	11.0	8.9	4.8	Average rate of growth	6.8	2.3	-3.3	7.2	7.3

Source: Calculated from: Evaluation and Follow-up Reports-Ministry of Planning.

The legal liquidity ratio is constant at the level of 30%. The actual liquidity ratio is above the legal ratio and ranges between 55.3% (1966/67) and 62.8% (1962/63). The variation in actual liquidity and reserve ratio from year to ^{year} suggests that they are the only instruments available to monetary authority for the control of credits development.

Now a set of important questions arises:

1. was it correct to follow a deflationary policy during 1961/62 and 1966/67 - 68/69?
2. was it not more wise to accelerate the rate of growth of GNP by following an expansionary monetary policy during 1961/62 and 1966/67 - 68/69?
3. can it be inferred that priorities of monetary policy has shifted from growth to stabilization target during the above three deflationary years?

The answer to the above questions takes the rest of this paper.

Generally, it can be said that the purchasing power of money is a useful indicator to guide policy decisions for stabilization. Over the first five years, the rate of change in prices was 8% while it reached 20% over 1965/66-1969/70. A stabilization policy was much needed in the second half of the sixties. Speaking of the past, such a comparison is only appropriate to gauge the effectiveness of stabilization policy but not the need for it. The same argument is applicable if a comparison is conducted between the shadow exchange rate of the Egyptian pound during the first and second subperiods. It is obvious that we cannot rely on the price level to give an answer to the above questions. An alternative is to bring back the conclusions of section III.

With the help of screening some financial variables, it was shown that the Egyptian economy has witnessed deflationary tendencies during some years: 1961/62 and 1966/67 - 68/69. On the real side, a slackening of rates of growth can be discerned during the same years. As an example, Table IV-2 gives rates of investment (savings) as a percentage of GDP and the Table IV-3 gives rates of production growth.

The rate of investment is lower during the deflationary years: The rate decreased from 18.7% in 1965/66 to 15.7% in 1966/67. During the following two years, it continued falling to reach a minimum level. On the other hand, the rate of savings increased from 13% in 1965/66 to 15.1% in 1966/67. The rate of savings in 1966/67 is the maximum rate during the sixties and nearly equals the rate of investment. In 1968/69 a surplus of savings over investment is realized. This is not because a drastic change in the savings rate took place but because the rate of investment was at minimum. On the whole, the average rate of investment and savings was lower during the deflationary years. As for production rate of growth, the average rate is at minimum in 1961/62 compared with the rest of the first five year period. Also, the average rate of production growth is minimum in years 1966/67 - 1967/68 of the second half of the sixties.

Now, it can be inferred that: financial phenomenon does not depend only on the real phenomenon but also follows it. Within the information given here, the causal relationship runs from the real to the financial, not vice versa. This is not a surprising conclusion. In the Egyptian experience, economic forces of the supply side are the main concern of the planner. This means that the financial authority is given only a passive role in setting targets of development; they have to follow the leader and adapt financial policies to the requirements of physical targets. Whether this is optimum is not our concern here. Finally, it is left to state that any evaluation of the effectiveness of financial policy during the sixties has to take into consideration the dependent character of this policy.