CHAPTER - VIII

JOINT STUDY OF OUTPUT PRICE AND MONEY SUPPLY RELATIONSHIP OVER DIFFERENT SUB-PERIODS :

8.1 Introduction :

Friedman and Anna Schwartz (1963) hold that money supply in the short run may affect output level or price level or both at the same time. A part of money supply usually in the short run goes to stimulate output level. Price level is affected by the rest of money supply. Thus, effect of money supply is dissipated into 'Output effect' and 'Inflation effect'[1]. The extent of 'Output effect' depends on the extent of money supply directed to stimulate capital asset for production and the extent of money supply left to add the inflationary pressure in the economy. Greater the part of money supply that goes to affect price level, the less is the strength of it on 'Output effect'.

In the last two chapter we have observed that both the price level and output level exhibited perceptible association with money. Such associations, however were found to be varying accross different sub-periods . It, therefore, becomes pertinent to consider the findings simultaneously in order to examine them in the light of the observations of Friedman and Anna Schwartz (1963). This will enable us to understand the dynamic nature of the price level and output level with money supply. This is expected to give us a feel about how variations in output level and price level underwent changes following variation in money supply. The study in this chapter seeks to address this issue.

8.2.1 Sub-periods observations from price money and output money supply relations : Decade of 1950:

It is observed[2] that (1) Output level exhibited positive variations in response to variation in money supply over the period 1950-60 and (ii) price

1.They also point out that money supply may affect 'interest rate'. This is 'liquidity effect'.
2. From Table 6.2 and 7.2.

level seems to be unrelated to money supply over the period concerned.

It may be noted that this period ranges from the early independence years to almost the end of the second five year plan period. This period is marked by a process of transition of vast non-monetized part of the economy into monetization. Barter economy was giving into the exchange economy following large scale investments for financing development scheme under-taken in the first and Second Five Year Plan. Money supply added to capital formation and investment. Consequently, output level registered a spectacular rise over the period 1950-60.

Increased supply of money raised purchasing capacity of the people. However, growing output level matched the growing demand for goods. As a result, thereof , price level exhibited insignificant variation following variation in money supply. Variation in money supply added more to 'income' than to 'price level over this period.

8.2.2 Decades of 1960 and 1970 :

Output level is found to exhibit distinct patterns of variation following variation in money supply over the following two successive decades (1961-70), 1971-80). The relationship seems to remain stable for a short ten years at a time for two consecutive periods.

However, price money relationship seems to exhibit a stable relation for about fifteen years (1960-74) followed by a stable relationship for a very short period 1975-79.

It is observed that output level exhibited
(i) higher response to variation in money supply than that in the previous sub-period(1950-60);

again (ii) Increasingly higher response in the following sub-period 1971-80.

Thus, output level variation is found to be positively related at a progressively higher rate to the variation in money supply over the sub-periods 1950-60, 1961-70 and 1971-80.

It is, therefore, observed that money supply affects the output level favourable, over the period 1961-1980. Such favourable effect of money supply on output level is discernible over these two sub-periods. Such favourable effect on output level was the outcome of the economic and political situations prevailing in India over this period. Economic and political exigencies alongwith the widespread national attempts to reach economic self sufficiency led to the growth of output level in 1961-70. Nationalization of commercial banks, proclamation of emergency, and launcing of ambitious economic programmes emphasise on mass production in both agriculture and industry led to higher growth in output level in the following sub-period (1971-80).

Consequently, output variation in response to those in money supply was higher than those in previous two sub-periods.

It is further observed that price level exhibited increasingly positive response to variation in money supply. Variaion of price level is for the first time found to be in significant association with that in money supply over the sub-period 1960-74.

Price level variation is further found to display higher rate of response than that in the previous period in response to that in money supply in the sub-period 1975-79.

These observations indicate that money supply also went to affect price level progressively over the period 1960-74 and 1975-79.

It is, therefore, observed that effects of money supply got dissipated into two streams - one affected 'Income level' and the other affected 'Price level' simultaneously over the period 1960-80. A part of money supply added to the productive capacity and led to generation of income while another part just affected price level.

8.2.3 Decades of 80' and early 90' :

Again, we observed that money supply played an insignificant role in the variation of output level. This indicates that money supply failed to explain observed variations in output level. This further seems to imply that variation in output level exhibiting insignificant association with those in money supply. Output variations, therefore, seems to be primarily due to some non-monetary factors over the period concerned.

On the contrary, price level responded significally following the variation in money supply and the response is found to be more and more than those of the previous two sub-periods 1960-74 and 1975-79.

It is pertinent at this juncrture to gauss the relative strength of these two effects of money supply. This can be felt from two observations from the table 8.1[3].

Table-8.1

	Output money supply relation		Price money supply relation		
Period	Variation in output level explained by variation in money supply.	Additional variation explained over the previous sub-period.	Variation in price level explained by variation in money supply.	Additional Variation in price level explained by money supply over previous sub periods.	Variation in money affects.
1950-60	Significant	-	Insignificant		Out level only.
1961-70	Significant	+11%	Significant	+30% between (1960-74)*	both output level and price level.
1971-80	Significant	+ 15%	Significant	+32% between (1975-79)*	both output level and price level.
1981-and	Insignificant	- 35%	Significant	+6% between (1981-92).	Price level only.

3. This table is drawn from the two tables - Table 7.2 and Table 6.2 taken together.

8.3. Further Study : Analysis of the Table 8.1-

It is observed from the table 8.1 that

(i) variation in money supply accounted for additional 11% variation in output level in the sub-period 1961-70 over that in the sub-period 1950-60. Again such variation accounted for additional variational 15% variation in income level in the sub-period 1971-80 over the previous sub-period. consequently, variation in money supply accounted for 26% variation in output level over 20 year period (1961-80) over the sub-period 1950-60.

In contrast, variation in money supply accounted for additional 30% variation in price level during the period 1960-74 over the previous sub-period 1950-54. Again, it accounted for further additional variation of 32% in the following sub-period 1975-79. Consequently, variation in money supply accounted for 62% variation in the price level over 20 year period (1959-79).

It, therefore, appears that, variation in money supply explained variation in price level more than those output level over the 20 year period covering 60s and 70s in Indian economy. This further indicates that price level had been affected by variation in money suppply progressively higher rate than that in output level.

This particular pattern of income and price changes following variations in money supply becomes further perceptible when the next sub-period is studied closely.

Variation in output level in the sub-period 1981-91 is found to be unrelated to those in money supply. Variation in money supply fails to explain those in out put level.

On the contrary, variation in price level is found to be related positively at a progressive rate to those in money supply. In 1980's including 2 years of 1990's variation in money supply accounted for additional 6% variation in price level. Money supply had 3.5% less effect on output level during the sub-period 1981-91 over its previous sub-period 1971-80 in Indian economy.

It, therefore, appears that effects of money supply got more and more dissipated into price effect over the period 1960-1992. Price level variations become more and more a monetary phenomenon. Money supply progressively was divested away from building up capital asset for the generation of out put level.