# CHAPTER 6.
RESEARCH RESULTS.

Many studies show that there has been a parallel movement between the rate of inflation and monetary growth, with inflation following monetary growth with a certain lag[19]. To examine whether this relationship holds in the Malaysian case, a test was conducted using quarterly data from 1993 to third quarter 1998 [an extension of the test done by Latifah Marican et al. (1994) as stated in section 4.4 table 4.].

Graph 1: M3 Growth and Inflation
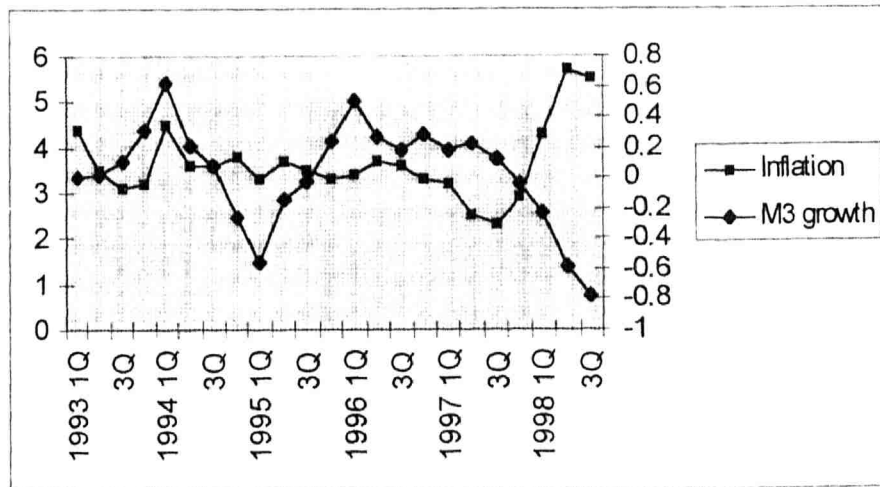
The movements of these two variables during the first quarter of 1993 to third quarter of 1998 are shown in Graph 1. The result seems to suggest that the relationship holds for the period 1993-94 and 1995-96, but for other periods the relationship has become blurred. The Graph 1 shows that during 1993-94, prices started to rise only in the fourth quarter of 1993, after the growth in money supply accelerated since the first quarter of 1993 and, during 1995-96,

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[19] See Narikawa (1988) and Taylor (1992).

the rate of inflation starts to pick up about four quarters after the acceleration in the growth of M3. These two phenomena behaved like in the textbook – a sustained money supply growth that causes aggregate demand to grow faster than sustainable output will cause sustained inflation.

Further statistical analysis of money demand from the same sample revealed that income, rate of interest as well as rate of growth in prices were statistically significant in determining money holding. The results of money demand regression are shown in Table 9.

Table 9.

Result on Money Demand Regression.						
Dependent Variable	Constant	Real GDP	Inflation	Interest Rate	Adjusted R^2	Durbin-Watson
M1	**34.492** (1.080)	**1.095** (1.150)	**0.287** (0.070)	**- 4.124** (-1.916)	0.602	0.523
M2	**15.490** (0.889)	**0.651** (1.250)	**- 0.347** (-0.154)	0.0055 (0.047)	0.364	1.002
M3	**12.034** (0.687)	**0.788** (1.507)	**- 0.362** (-0.160)	**0.328** (0.286)	0.316	0.841
Note: t-values are in parentheses below the coefficients. Coefficients significant at the 5% level are in bold. Sample period 1993 Q1 – 1998 Q3. All variables are in linear forms.						

The positive sign (0.287) for the effect of the price increases on money demand (M1) indicate that people maximise their holdings of non-earning assets when prices rise. This finding was not similar with previous studies conducted by Merris and Rosli (1987) and Latifah Marican et al. (1994) as their study indicated that people would minimise their holdings of non-earning assets when the price increases.

The difference in the price effect may be due to the lower inflation rate – an averaged of 3.5 percent during the research period compared with an averaged of 6.0 percent during the period of previous study, and all the variables in the demand analysis are in the linear form whereas the variables in the previous study are in the log-linear form. This may bring to some discrepancies in the research results.

The finding on the income and the interest rate elasticity for M1 is however consistent with the finding of the previous study. Money demand for transaction balance increases with increased in the economic activity and rising incomes whereas increase in interest rates would lead to decline in money holding.

As for M2 and M3, the regression showed lower income elasticity at 0.651 and 0.788 respectively. This finding also is evident in the study by Merris and Rosli (1987) and Latifah Marican et al. (1994). Thus, we tend to agree with the conclusion in those findings.

The effect of the price increases and the interest rate changes on M2 and M3 were not similar to M1 but similar to each other. Money holdings on M2 and M3 were negatively correlated with increases in price and were positively correlated with the changes in rate of interest. It indicates that people demand more M2 and M3 if the interest rate rises and demand less if the inflation rate rises.

Although the above findings can explain the effect of monetary growth on the inflation and the way people demand for money, however there are indeed some reservations to be made. Firstly, almost 40 percent of CPI goods are controlled items. These give a very significant impact on a movement of the prices measures by CPI as shown in the positive sign of the coefficient for the inflation. It does not support the common belief that higher inflation could reduce spending.

Secondly, due to a small sample (23 quarterly observations) it could lead to errors in the estimation of the coefficients and missing variables, and could not satisfy the assumption of the normality of residuals, in turn it could lead to errors in the t-values and Durbin-Watson analysis. The appropriate value for Durbin-Watson for N=23 with 95 percent confident level with three independent variables are between 0.99 and 1.66. In the analysis, only M2 is more significant than others.

Thirdly, other variables influencing money demand should also be considered. Factors like banking facilities and technologies, development of money and capital market; institutional structure and financial instrument could be other significant and influencing factors why people demand for money.