The behaviour of the demand for money function of Sri Lanka 1950-1985

By

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Abstract

This study attempts to investigate one of the most important macroeconomic relationships, namely, the demand for money. This relationship originated in its modern form, after Friedman's (1956) restatement of the classical quantity theory of money as a theory of the demand for money. Since this publication, a substantial volume of empirical studies has been produced. The bulk of these were in the context of the developed countries. Quite insignificant has been the work of this subject in relation to developing countries.

In so far as the major determinants of the demand for money is concerned Sri Lanka appears to represent as "intermediate case", which falls between those countries where the demand for money is almost entirely determined by income and/or wealth and those high inflationary countries where the opportunity cost of holding money as measured by the expected rate of change in the price level, appears as the major determinant of the demand for money.

An exploratory and experimental approach has been adopted in this study for a number of reasons. For one thing, structural changes and the nature and quality of the available data dictated that a disaggregated analysis be made over time and over different monetary assets – narrow money (M_1), broad money (M_2) and their components. Even in the case of some developed countries, it has been argued that this type of disaggregated analysis provides more valuable insights into the behaviour of the monetary sector. In view of the structural, institutional and behavioural characteristics, together with the policy regime shifts in countries like Sri Lanka, an approach of the above type appears to be more relevant than in the context of developed countries.

Empirical estimates presented in this study amply justify the relevance of disaggregation over time – different sub-periods – and over different components of the money stock. For the period 1950 – 1960, the most appropriate scale variables were the real gross national expenditure for narrow money and real national income for broad money. The relevant opportunity
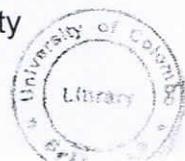
cost variable for this period was the government Treasury bill rate. The above rate of interest was highly significant in the case of narrow money but not significant as the opportunity cost variable over the sub period 1960 – 1977. On the other hand, the expected rate of change in the price level was the most suitable opportunity cost variable for the post 1977 period.

As for the demand for components of the money stock, private consumption expenditure performed much better than the other scale variables in the case of the demand for currency. In addition to the above variable, the number of bank offices is found to be an important determinant. In the case of the demand deposits and the time and saving deposits real income and the number of bank offices turned out to be the most important determinants. For the sub-period 1950 – 60 the non-agricultural income proved to be a significant variable in the estimates. However the estimated demand functions for currency are more stable and consistent as compared with those estimated for other components.

The fact that the demand for components of the money stock are determined by different factors would raise problems for the monetary authorities in their policy formulations directed to control the aggregate money stock.

It is well known that in developing countries money is demanded to replace the barter transactions as the country develops and as the people get accustomed to money using habits. This monetization demand is independent of the traditional determinants – income/wealth and opportunity cost – of holding money. Our results clearly indicate that the omission of monetization variables affects the income elasticity of the demand for money and the interest elasticity. We have estimated demand functions for both M_1 and M_2 including and excluding a variable to represent the effects of monetization. Results produced in these estimates showed that without the monetization variable income elasticities were biased upwards. This may be due to the fact that the real income variable tends to capture the monetization demand. In so far as the monetization issue is concerned, our estimates lead to more concrete conclusions compatible with the observed behaviour in the context of

many developing countries. The upward bias of income elasticity of broad money is more pronounced as compared with that of narrow money. This would normally create problems for monetary policy, since the authorities do not have any control over the components of money considered separately. For example if an expansionary monetary policy is adopted leading to an increase in money supply, it is possible that a substantial proportion of the expanded money supply could be absorbed to satisfy the monetization demand. This is particularly important for the monetary authorities if the policy is directed at controlling interest rates to stimulate aggregate expenditure. In this study we have experimented with a number of variables to represent the monetization effect. Some of these variables are the agricultural surplus of paddy for the period 1950-60 and the ratio of domestic credit to GNP for the 1960 –1977 period.

We have also estimated an alternative formulation of complementarity hypothesis, which assumes that money and capital are complements rather than substitutes. This approach produced more plausible results as compared with those estimated for the traditional substitution hypothesis. The estimated equations are more consistent and stable. In an overall sense the complementarity hypothesis is more superior to the substitution hypothesis in the context of Sri Lanka. Moreover, the policy implication of this model is diametrically opposed to those implied by the traditional substitution hypothesis. Complementarity hypothesis put more emphasis on interest rate control than on the control of the money supply.