ABSTRACT

A Study of the Determinants of the Money Supply in Thailand. (December 1977)

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In past decades, several economists have investigated the determinants of the money supply. They found that the money stock was influenced by both exogeneous and endogeneous factors to the economic system. They have shown that changes in the money stock are a reliable summary measure of the effect of monetary policy actions on economic activity. It was suggested that, by controlling the growth rate of money supply, the monetary authority could achieve it's policy targets.

The purpose of this study is to investigate the behavior of the determinants of the Thai money supply and the various factors that affect them. A simple model of the money supply from basic definitions was constructed. It shows the relationship between the stock of money and its three determinants - the high-powered money stock, the reserve ratio and the currency ratio. Through a simple transformation we can express the rate of change in the money stock as the summation of three

terms related to the rates of change in each of the determinants. It was found that the average change in high-powered money accounts for approximately 86 per cent of the change in the total money stock while the average contributions of the reserve ratio and the currency ratio are -.58 and 15 per cent respectively. Time series analysis using both ordinary least squares and the Hildreth-Lu scanning technique was conducted to investigate factors influencing each of the three determinants.

The statistical results confirm the theoretical results that the high-powered money stock is determined by the principle components of the balance of payments, viz., capital movements, and U.S. aid and military expenditures, and commercial bank loans. Another regression reveals that demand and time deposits play a significant role in the determination of the reserve ratio. Furthermore, an analysis on excess reserves shows that excess reserves are, as one would suspect from theoretical considerations, influenced by more demand deposits than time deposits. The currency ratio is affected by per capita income and interest rate paid on time deposits when we consider the narrow definition of money stock. For the broader definition of money supply, only per capita income plays a central role. However, the empirical work shows that both non-monetary gold and number of bank offices have no influence on the currency ratio.

It can be concluded that the contribution of the high-powered money stock to a change in money supply should be emphasized. The empirical results based on the model developed suggests that the money stock in Thailand may be controlled if the monetary authorities can control the high-powered money stock. Again, the role of capital movements and U.S. aid and military expenditures as factors influencing the high-powered money stock cannot be ignored.

DEDICATION

to

Mr. Phadech and Mrs. Jittima Nitisiri

and

Mr. Narong and Mrs. Vichitra Sachchamarga