Broad Money Demand and Financial Liberalization in South Africa— A Review

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I Introduction

Financial liberalization encompass the following: the lifting or easing of interest rate ceilings, lowering of compulsory reserve requirements and entry barriers, as well as the reduction of government control in the allocation of credit. Financial liberalization has been the hallmark of both developed and developing countries in the face of globalization. The paper, therefore, tried to study the stability of money demand using different estimation procedures under a financially liberalized economy.

II Summary of the Paper

According to the author, recent changes in international finance are posing serious challenges to the conduct of monetary policy. The achievement of price stability was made even more difficult by financial innovations and liberalization during the 1990s, as well as the switch in policy emphasis from monetary targeting to inflation targeting. As a result, a money demand function in the form of a single equation model is now the center-piece in monetary policy design. It is used to forecast the path of the national income and design money supply consistent with target paths in real economic growth.

The objective of the study was, therefore, to test the stability of money demand and the performance of the money demand equation in South Africa, in the face of financial liberalization and changes in the payments and settlement system. This was done by developing a fixed-coefficient error-correction model for broad money demand function for the period 1971 to 2000, after which quarterly forecasts were generated for 2001 and 2002, using a varying-parameter regression model.

The money demand function was specified in error-correction form in order to capture the non-stationarity of the underlying time series. This methodology was appropriate for

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this work for two reasons. First, though money stocks, price and income levels are non-stationary, they may well be co-integrated. Second, error-correction models allow for a broad range of dynamic relationships between variables. The single equation error-correction representation was estimated for M3 (nominal M3) using consumer price index and real GDP, short-term market interest rate, long-term market interest rate and own rate of M3. All variables except the interest rates were in natural logarithms.

The varying-parameter regression technique used for the forecasts, on the other hand, uses the basic idea that the parameter vector in an econometric relationship may be subject to the sequential variation over time due to the problems of structural change, misspecification or aggregation. Thus, the essence of the approach is to formulate an economic equation as a Kalman filter state-space model and to use a recursive algorithm to maximize the log-likelihood function via a combination of the iterative estimation and maximization and scoring technique. Thus, the model offers insight into improved methods of analyzing time series data. Quarterly data from 1971 to 2000 were used to estimate the model, while data for 2001 to 2002 was excluded for ex-post forecasting evaluations.

Empirical results obtained from the study indicated that despite significant fluctuations in the income parameter, the other long-run parameters of the estimated model were remarkably stable. Also, a modeling strategy that allows parameters to vary over time would better explain a money demand equation and, therefore, improve its forecasting ability. Results also indicated that the switch to inflation targeting has not removed the nexus between monetary policy and the stability of money demand in South Africa. Thus, the debate about the stability of money demand is still relevant.

The author, thus, concluded that long-run causality from money growth to price inflation may exist even in an inflation targeting regime or due to an accommodating monetary policy, while the long-run stability of money demand may be affected by financial liberalization and innovations, as well as the removal of capital controls.

III Comments

The study of monetary developments through the use of time-varying parameter regression technique is an effective way of identifying the impact of financial innovations

to money demand. The stability of the demand for money, for instance, could be affected by innovations in the payments system, real time settlements, product diversification, changes in monetary policy framework as well as the substitutability between holdings of alternative assets. Thus, for a developing economy, such changes have useful implications for monetary policy. This study, therefore, provided significant insights into the behaviour of the money demand function, which is of utmost relevance for Nigeria. The efforts at liberalizing the financial markets, reforming the payments and settlement systems, changing the monetary policy framework as well as the automation of banks' and other financial institutions continue.

Specifically, the key lessons from the study for Nigeria could be summarized as follows:

An important area which would provide a basis for further investigation is the incorporation of expectations and information asymmetry since it has become almost a fact that anchoring expectations and uncertainties enables monetary authorities to effectively control money growth and price level. This is because monetary signaling can only be achieved with minimum dead-weight losses, if economic agents must interpret and follow the desired course of monetary actions. It would, thus, be a lesson to begin to publish forecasts which could signal and anchor economic agents' behaviour. This can precede the full implementation of the inflation targeting framework of monetary policy

First, regime shift in terms of a framework for the conduct of monetary policy require a clear understanding of the dynamics that drive economic behaviour; otherwise, smooth transition could be undermined. While the demand for money functions may not matter so much in an inflation targeting regime, the relationship between volatility of monetary aggregates and price determining indices implies that they are useful policy information.

So far, most of the conditions for moving to inflation targeting have been met. These include:

- Goal Independence of the central bank;
- Coordination between monetary and fiscal authorities in order to address the problems of fiscal surprises and dominance;
- The central bank is also developing a liquidity forecasting model;
- Enhanced revenue base of the government;

- A strong external (reserve) position, which will ensure stability in the foreign exchange market; and,
- Transparency in the conduct of monetary policy through various institutional arrangements and fora such as the Bankers' Committee, Monetary Policy Forum, Annual Monetary Policy Conference, etc.

However, there is the need to intensify efforts at identifying the source of volatility of demand for money function for Nigeria, which would provide a basis for streamlining operations to conform to an inflation targeting regime, for instance, the use of reserve management to influence the domestic money market operations.

In conclusion, therefore, implementing forecasts for key monetary indicators is a credible way of enhancing monetary policy operations. It should be noted, therefore, that there is the need for a stable forecasting regime that clearly brings out the trend, transitory, irregular and permanent components of money demand in Nigeria. This would provide useful information that would aid in the administration of monetary policy, especially given the impacts of financial liberalization and changes in payments and settlement systems on money demand.

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