Examination of Changes in Monetary Policy Framework and Endogeneity of Money Supply

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This paper examines how the money supply mechanism and the effectiveness of monetary indicators have changed since Korea's monetary policy framework shifted to focus on interest rates rather than monetary aggregate. To this end, this paper examines the causality between bank loans and M2 according to the "financing through money creation (FMC)" approach, analyzes the volatility of size of bank loan, and conducts a VAR model analysis of the relationship between banks' lending attitudes and loan supply. This paper then verifies whether monetary indicators affect GDP and inflation by estimating the income and inflation equations.

First of all, the examination of the exogeneity and endogeneity of the money supply indicates that it has shown weaker exogeneity or has become endogenous since the focus of Korea's monetary policy framework moved from monetary aggregate to interest rates. For the period in which the focus was on monetary aggregate (hereinafter the "monetary growth-targeting period"), causality was found from monetary base growth to bank lending growth, and also from M2 growth to bank lending growth. For the period in which the focus was on interest rates (hereinafter the "interest rate-targeting period"), however, causality was found from bank lending growth to M2 growth. During this interest rate-targeting period, the volatility of size of bank loan was also higher than during the monetary growth-targeting period, and banks' lending attitudes had statistically significant effects on loan supply, implying the possibility of an endogenous money supply.

Furthermore, the effectiveness of monetary indicators proves to have weakened during the interest rate-targeting period. During the monetary growth-targeting period, money growth exhibited explanatory power for inflation but not for real GDP growth, while during the interest rate-targeting period, money growth indicated explanatory power for neither real GDP growth nor inflation.

This paper is significant in that it examines the money supply mechanism, on which there has not been a great deal of research since the focus of the monetary framework shifted to interest rates, to see whether money supply is endogenous, based for example on the FMC approach. Furthermore, considering the endogeneity of the money supply as well as the fact that the effectiveness of monetary indicators is weakening, this paper may suggest that research on topics such as an analysis model with the endogeneity of the money supply taken into consideration will be necessary in analyzing the spillover effects of monetary policy.

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