Nonlinear Transmission Mechanism of Monetary Policy from Exchange Rate Channel in Iran: Approach (MS-VAR)

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Abstract:

The country's monetary authorities are trying to adapt the money supply to the country's goals in order to achieve such macroeconomic goals as achieving higher economic growth, stabilizing prices, balancing payments and controlling the volume of money. Therefore, a careful evaluation of the monetary policy transfer mechanism seems necessary to help us better understand how monetary measures affect production and price levels.

In this regard, the exchange rate as one of the key variables of the economy can be very decisive in the transmission of monetary policy effects. In other words, the exchange rate is an important indicator of the economy that, due to its interaction with other domestic and foreign variables, affects both domestic and foreign economic developments as well as the domestic economic variables. For this reason, the role of the exchange rate channel in the monetary transmission mechanism in the Iranian economy as an important issue has been very pronounced in recent years. This paper was, thus, intended to study the role of the exchange rate channel in transferring monetary policy effects.

However, it should be noted that most economic series undergo changes in trends and behaviors for various reasons, including structural economic changes or changes in the behavior of economic agents over time. Accordingly, time series changes can change the relationships between variables over time and non-linear monetary policy transfer seems very likely. Nonlinear monetary policy transfer means changing how monetary changes affect production and price levels. The purpose of this study was, thus, to study the mechanism of nonlinear transfer of monetary policy from the exchange rate channel, so as to examine how the exchange rate is affected by monetary changes, and how the exchange rate affects the production and price levels over different periods.

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In this regard, MSVAR method was used in this study to investigate the role of exchange rate channel in the non-linear monetary policy transfer mechanism, which has great potentials for incorporating structural changes. To that end, consumer Price Index, Currency Base Currency Volume were, thus, used during the seasons 1990Q1 to 2016Q4.

 The results confirmed the theory of polion in the Iranian economy. This way, money in two regimes of zero (years after 2006) and regime one (years before 2006) was effective on the production in the short run and had no effect on the production in the long run. The most important distinction between the seasons of the zero regime and the regime of a real monetary base growth remained constant. In effect, the growth of the real monetary base balance was about eight times higher than that of the one in the zero-regime compared to the one in the previous year. However, comparing the effects of money on the production in these two regimes suggests that money has had similar effects on production. Therefore, more money growth in the zero regime could not have a greater impact on the production than regime one. On the other hand, examining the effects of money on the price level suggests that in the long run under the zero-growth regime, money has had larger and more lasting effects on prices. The estimated results regarding the role of the exchange rate channel in the money transfer mechanism suggest that increasing money from the exchange rate channel in the zero regime did not play a role in generating money, whereas in regime one, the exchange rate channel had a significant share in it. Indeed, there has been a transfer of money over production, and money changes through this channel have reduced production. On the other hand, the share of the exchange rate channel in transferring money to prices in regime zero (high money growth) is higher and more stable than regime one (low money growth). In other words, in the zero regime, the increase of the currency will increase the exchange rate further and the exchange rate will have more lasting effects on the price level.

According to the findings, it is recommended that the central bank restrict the growth of money supply in order to control inflation. This is because with the increase in money growth, the impact of money on production has not changed and only in the long run will it lead to higher prices. On the other hand, because the exchange rate channel in both regimes has a negative role in transferring money over production, it is recommended that the central bank, in order to increase production by controlling other factors affecting the exchange rate, prevent further currency jumps and growth so as to limit its negative effects on production.