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THE RELATIONSHIP BETWEEN EXCHANGE RATE VOLATILITY AND INFLATION IN TURKEY

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ABSTRACT

Purpose- Many studies pointing out that the exchange rate depreciations underlies of the inflation problem, which is still keep up to-date, provides empirical evidences about the existence of a direct relationship between the exchange rate and domestic prices. In addition to this phenomenon called exchange rate pass-through, we also think that exchange rate volatility can also have an impact on domestic prices. The aim of this study is to investigate the relationship between inflation and exchange rate volatility, which is characterized by the increase in risks and the creation of an environment of uncertainty in Turkish economy.
Methodology- In our study, we run an augmented philips curve equation to estimate the effect of exchange rate volatility and other variables on inflation. We measure exchange rate volatility as the standard deviation and GARCH (1,1), which are frequently used in the literature. In addition, we use the time-varying parameter approach to estimate the direction in which the effect of exchange rate volatility on inflation changes over time.
Findings- According to the findings, the parameters in the philips curve equation are statistically significant and reasonable in line with the economic theory. The coefficient of inflation inertia is estimated to be 0.33. This indicates that approximately one-third of a 1% increase in inflation comes from past inflation. The ERPT is calculated as 18% for the short term and 27% for the long term. The fact that the exchange rate volatility parameters are statistically significant confirms our hypothesis. Accordingly, an increase of 1 conditional standard deviation in exchange rate volatility leads to an increase in domestic prices by 0.71. We also provide evidences that the impact of both exchange rate and exchange rate volatility on inflation increases over time.
Conclusion- The results show that, in addition to the exchange rate, exchange rate volatility also has a significant effect on inflation. This provides credible evidences that exchange rate uncertainty should be an additional indicator, such as the exchange rate, to achieve price stability and monetary policy goals.

Keywords: Exchange rate volatility, exchange rate pass-through, inflation, time-series models, monetary policy
JEL Codes: E31, C32, E52

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