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The Determinants of Exchange Rate Volatility in South Africa

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Increasing financial liberalisation since the collapse of the Bretton Woods system in the 1970s has rendered exchange rates volatile in both developed and developing countries. As for South Africa, it liberalised its capital account in March 1995 following the abolishment of the dual exchange rate system which had been in place since the mid-1980s. Currently, the South African rand is an important emerging market currency and the most significantly traded African currency. Understanding the causes of exchange rate volatility is important to policymakers. This follows the argument that the exchange rate movements play an important role in economic development in most developing countries. In South Africa, there is evidence which suggests that exchange rate volatility has significant effect on macroeconomic factors such as employment growth and trade.

This study investigates the determinants of exchange rate volatility in South Africa using generalised autoregressive conditional heteroscedasticity estimation techniques between 1986 and 2013. The main aim of the study is to test the hypothesis that economic openness decreases exchange rate volatility. The results indicate that switching to a floating exchange rate regime increases exchange rate volatility. The results also show that trade openness reduces exchange rate volatility using the bilateral exchange rate of rand per United States dollar while the opposite is found when using multilateral exchange rate. Other variables like the volatility of output, commodity prices, money supply, and foreign reserves significantly influence rand volatility. However, the results for the exponential generalised autoregressive conditional heteroscedasticity estimation technique, indicate that the asymmetric term is insignificant for four out of five specifications. This suggests that there is no impact of news effect on the four specifications at monthly level.

The findings of the study have important implications for future policy design. The study finds that real factors (volatility of commodity prices and output, and openness) have higher magnitudes of influencing exchange rate volatility compared to monetary factors (volatility of money supply and foreign reserves). This suggests that the South Africa government should focus more on real factors if they aim to mitigate exchange rate volatility, given that increases in exchange rate volatility might hurt the economy via the adverse effects on employment growth and trade. The results further suggest that exchange rate volatility should also be analysed using short-term periods, for example, daily or intraday data because exchange rate movements cannot always be explained by flow demand and supply components.
