Analyzing the rising oil price shock driven by Russia-Ukrainian tensions - effect on inflationary pressure in South Africa

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ABSTRACT

At the onset of 2022 the Russian Federation occupied Ukraine in a major intensification of the Russo-Ukrainian War that instigated in 2014. The result of the Russians invasion in Ukraine caused a major intensification in the inflationary levels and weakened global economic growth. As a result of the conflict the Brent Crude Oil prices increased from \$92.98 per ounce on 24 February to \$122.43 per ounce on the 8th of June 2022 which is an increase of 31.67 per cent in less than 4 months. The result of this invasion reformed the macroeconomic environment which fundamentally affected the international commodity markets and consequently leading to insufficient financial linkages between Russia and the rest of the World. The aim of this paper is to examine the relationship between the CPI, the brent crude oil price, the PPI for final manufactured good as well as the Rand/Dollar exchange rate. The study used South Africa as a proxy for developed countries. A quantitative methodology was used through the estimation of an econometric model by utilizing monthly time series data from January 2017 to May 2022. The CPI was chosen as the dependent variable while the independent variables included the PPI, sunflower oil, Rand/Dollar exchange rate and the brent crude oil. Short- and long-run relationships were established between the variables using the vector error correction model (VECM) and the Johansen co-integration equation methods. The long run conclusions showed that high brent crude oil prices, high sunflower oil, a depreciating exchange rate and increasingly high PPI levels will lead to an increase in the CPI (Inflation). In conclusion, the results of the study showed that a perpetual international and national macro-economic environment is crucial to prevent inflationary pressures and price shocks, while volatile exchange rates unsteady PPI's and significantly high oil and commodity prices causes cost-push inflation. Policy certainty and political stability is important to keep inflation stable and economic growth positive, which could lead to a more self-sufficient economy which are not reliant on political instability as an obstacle for positive future economic growth.

Keywords: Russian-Ukrainian conflict, economic growth, Brent crude oil prices, PPI, CPI, exchange rates, sunflower oil.