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RELATIONS BETWEEN EXCHANGE RATE AND OTHER MACRO ECONOMIC FACTORS

Selim **COREKCIOGLU**

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ABSTRACT
Changes in the exchange rate, which is one of the most important economic indicators, may affect other economic factor. Through the changes in the exchange rate, price instabilities can be seen in countries that are dependent on imported inputs. Theoretically, an increase in money supply may cause to increase the general level of prices. Therefore, exchange rates are important in terms of achieving economic stabilization. Trade balance deficit is a big problem for Turkish economy. The main reason is that Turkish economy, especially Turkish industry, depends on imports of energy and intermediate goods. Although solving this problem does not seem very easy, reducing the luxury consumption expenditures, producing and exporting high added value goods, investing in R & D and innovation, and attracting foreign direct investments to Turkey will positively affect the exchange rates.

1. Introduction

The liberalization of capital movements on the world increased the dependence of economies on each other and thus the global casesaffected the economies.From this perspective, exchange rates are among the factors linking the economies and may be the cause of regional or global crises(Gevorkyan & Khemraj, 2018).Due to exchange rate fluctuations arising from global events, some developing countrieswhich has no economic stability may face economic problems such as inflation(Tack Yun, 2017).In order to get more revenue from global market, exchange rate policyhasvital role(Mihye Lee, 2017). Therefore, it is very important to conduct a successful monetary policy for exchange rate and inflation rate(Kaya, 2018).

As a result of the economicliberalization, the financialrisk has started to increase day by day.Therefore, the importance of determining the causes of volatility in the financial markets gained importance(Lamba & Mamta, 2017).It is stated by the some economists that the large-scale changes in the prices of financial assets, such as gold foreign currency, are followed by large-volume changes and small-volume changes are followed by small amounts of changes(Mandelbrot, 1963).The volatility arising from the uncertainties and instability in the economy has positive or negative effecton the financial markets(Wong, 2017).In general, high volatility in stock prices, interest rates and exchange rates causeeconomic disruptions in the performance of the financial system(Zhang & Li, 2017). So, in order to dobetter forecast the structure of volatility and to prevent the potential risk, time series areused. Variable variance models are widely used in modeling and estimating the volatility of financial assets(Loudon, Watt, & Yadav, 2000).

When the pricemoves away from equilibriumfor a certain period of time, economies face various problems(Mishra & Debasish, 2017). So, it is important to conduct a strongmacroeconomic policy to decrease negative effect of pricing mechanisms.Since the economic structure of each country is different, the sensitivity rates between the pricing mechanisms may change(Klyuev & To-Nhu Dao, 2017). In this respect,Currency rate, as a pricing tool, is very important.

In the second section following the introduction part of the study is research methodology, third section is theoretical background and fourth section is research results findings and conclusions.

2. Research Methodology

As a research methodology, literature review was used in this study. Articles from different sources on the foreign exchange rates were studied. Eventually, it was aimed to reach final conclusion and offer for Turkish Economy.

3. Theoretical background (Literature Review)

(Kaya, 2018)stated that the effect of exchange rate on inflation was occurringby means of import channel. Because Turkish industry depended on crude oil, natural gases and so on. According to the results obtained, it wasseen that crude oil price shocks affected import prices and thus caused exchange rate shock and finally exchange rate shock caused an increase in producer price index.The reason for this increase is that Turkish Economy largely dependent on imported crude oil(Kaya, 2018).

Therelationship between inflation, interest rates and exchange rate in Turkey wereanalyzedby using VAR method.It was seen that the effect of the shocks occurring in the exchange rates lasts more than the effect of the shocks occurring in inflation and interest rates. The increases in the exchange rates has effect on interest and inflation almost one year. Whenexchange rates increase or decrease inflation rates and interest rates move in the same way. In sum, exchange rate, inflation and interest rates affect their values as well as affect each other. However, the exchange rates are more external than the other variables. Inflationrate and interest rate areaffected by exchange more. In this respect, the stability of the exchange rate seems to be the determining factor in the stabilization of prices and interest rates(Sever & Mizrak, 2007).

In another study, the relationship between inflation and currency exchange rates for Turkey was investigated by using cointegration and causality analysis for theperiod 2018: Q2-2017: Q3. According to the findings, inflationrates and exchange rates move together in the long term.So, these two series are co-integrated and statistically significant. 1% increase in the exchange rate increases the inflation by 0.92%(Bulut, 2017).

(Yamak & Korkmaz, 2011)aimed to examine the effects of the real value changes in the Turkish lira on the foreign trade balance by using a data set consisting of quarterly data covering the period of 1995: 1-2004: 4. The analysis was conducted by using Dickey-Fuller, Phillips-Perron unit root tests,Granger causality test and effect-response.As a result of the unit root tests, it was concluded that there is no long-term relationship between the series. While evaluatingThe results obtained with Granger causality test, structural change in monetary policy must beconsidered in the 2001: 2 period.The results of Granger causality test indicate that there was a causality relationship between the real exchange rate and the foreign trade balance when the change wasignored.As the foreign trade balance deficit grew, the real value of Turkish liras decreased.The empirical findings show that the relationship between the real exchange rate and the foreign trade balance was in the form of the classicelasticity only if the February 2001 crisis was not taken into account. Consequently, the interpretation of econometric findings together implies a vicious circle.This vicious cycle is due to the fact that there is a large place of intermediate goods at the center of the relationship between real exchange rate and foreign trade balance.Real depreciation of the Turkish lira has a positive impact on foreign trade by decreasing the foreign trade deficit of capital goods.(Yamak & Korkmaz, 2011).

According to the findings of the another study; The effect of a one-unit shock on inflation was mainly the part of inflation that is affected by variables which is not included in the model. However, it can be stated that these variables, which are not in the model, have statistically significant effect on inflation. These effects continue in the long term. According to the study, it can be said that one unit shock applied to inflation by nominal exchange rate show its effect in the first six months and the effect is very strong up to 6 months.This effect lasts approximately 6 months and increases continuously.After 6 months, the effects remain stable and the trend of inflation decreases.The effects of the shocks in the inflation variable have almost no effect on the nominal exchange rate. The effect lasts for 1 month and the direction of this effect is unclear. In the following period, no statistically significant effect is found.In this respect, it is impossible to explain the nominal exchange rate with the inflation.However, it can be said that the effects of variables, which is not included in the model, on the nominal exchange rate have a statistically significant effect.These effects continue in the short term and the direction is upside in the first 2-month period.In addition, there was no short-term relationship from inflation to nominal exchange rates.As a result, it was found that inflation is affected by increases in nominal exchange rates(Bozdağlıoğlu & Yılmaz, 2017).

(Tuncay & Kök, 2015) also studied on exchange rate. Changes in exchange rates have serious effects on variables such as growth, inflation, as well as on goods, services and capital flows. To achieve the economic policy objectives makes the selection of the appropriate exchange rate system important.Nowadays, the foreign exchange rate system become a strategic economic policy tool while the tariff and quota restrictions on foreign trade are removed. The exchange rate system also become important in terms of competitiveness(Tuncay & Kök, 2015).

In the study of (Peker & Görmüş, 2008)the effect of exchange rate on inflation in Turkey were analyzed by using VAR method for the period 1987: 1 -2006: 3.According to the empirical findings of the study, prices arehighly sensitive to exchange rate movements(Peker & Görmüş, 2008).

4. Research results findings and Conclusions

Foreign exchange rates have a significant impact on both the inflation and other macroeconomic indicators. In case of depreciation of the Turkish lira, imports and foreign trade deficit decreases as the products become more expensive. While foreign trade deficit decreases, foreign currencies start to lose value.Turkish economy, especially Turkish industry, depends on imports of energy and intermediate goods. However, in case of a decrease in the import of crude oil and intermediate goods means that production decreases and thus economic growth start to stop. Under the circumstances,theeconomy goes round in vicious circles.

This vicious cycle should be broken in some way. Central bank has to control money supply and avoid policies that will lead to inflationary pressures on economy. Other important issue is industrial investments and productions. In this context, strengthening of the economic infrastructure is very important. In order to decrease the foreign trade deficit, luxury consumption should be avoided. with regard toindustrial production, high value-added products should be produced and exported. Increasing R & D expenditures is another important issue. This will not be easy at the beginning, so foreign investment must be attracted to the country. Because, while foreign investor make investment, they will not only bring their capital, but also they bring their technology and innovation to host country.

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ADRESS
Selim **COREKCIOGLU**
SzentIstván University, Hungary

Corekcioglu.selim@phd.uni-szie.hu