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The factors Determinign Exchange Rate in Iran with a Focus on Economic Sanctions

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Abstract

The main purpose of the present article is to describe factors determining the exchange rate in Iran. Stepwise Lease Square was used to identify the possible factors that affect exchange rate in the period of 1357-1396. Then, econometric methods were used to estimate the long-run relationships among the variables. The results confirm, in the long-run, a significantly negative relationship among nominal exchange rate and government expenditure, oil revenues and net export while interest rate, GDP, difference in domestic and foreign inflation, and budget deficit have a positive and significant effect on nominal exchange rate. In addition, the economic sanctions in 1391 have a considerable effect on the nominal exchange.

Keywords: Exchange rate, Oil revenue, Interest rate, Budget deficit.

JEL Classification: F3, O24, F51.

1. Introduction

Considering the importance of exchange rate and quick changes in foreign exchange polices in Iran, there is a need to identify the factors affecting the exchange rate and to analyze the policies implemented in the area of foreign exchange rate in Iran to access appropriate polices. The innovation of this paper is in determining the effective factors in changing the exchange rate with a focus on the sanctions.

2. Literature review

Based on the literature review, the factors influencing the exchange rate are classified into three groups including demand factors, supply factors and other factors. The important factors are as follows:

2.1. Demand side factors

2.1.1. National income

If national income increases, the imports will increase; then, the demand for foreign currency will increase, and finally, exchange rate will increase. It should be noted that in a monetarist exchange rate model, the opposite result would be obtained. An increase in national income shows an increase in national product,

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which would increase the exports. So, this mechanism increases the supply of foreign currency, which decreases the exchange rate.

2.1.2. Replace of the national currency (The Dollarized economy)

During hyperinflation, the residents will hold part of their savings in foreign currencies. Of course, this holding of money is intended to maintain the value of money. It is clear that in this condition, the demand for foreign currency would increase and supply of foreign currency would decrease. Finally, the exchange rate would increase.

2.1.3. Expectations

Exchange rate is one of the variables that affect inflation through expectations. Without a doubt, orientation and intensity of expectations have an effect on the exchange rate. For example, expectations about an increase in inflation (ration inflation outside), will cause a change in the exchange rate. If people expect the prices to increase, the imports will increase and the exports will decrease. Consequently, the exchange rate will increase. The tensions, conflicts, rumors, propaganda warfare, economic sanctions and other factors increase the exchange rate.

2.2. Supply side factors

2.2.1. Difference between domestic and foreign real interest rate

A higher domestic interest rate is compared to the foreign interest rate will cause the inflow of investments increased supply of foreign currency and finally, decreased exchange rate. However, the effect of changes in the interest rate on the exchange rate can be also explained in other ways. For example, if interest rate increases, this would cause a decrease in investment and income, which will, consequently, cause a decrease in the imports and demand for foreign currency decreasing the exchange rate.

3. Method

In this paper, based on the theoretical and empirical literature, we investigate all the influential factors in exchange rate in an experimental model. To achieve this goal, we used the annual exchange rate growth as the dependent variable. The explained variables are selected based on the literature. The model presented in this paper is as follows:

$$Gner = f(Dinf, Dm, Gvm, Gdb, Gbp, Gge, Ggdp, Giratio, Gnx, Gopn, Gpop, Goilre, Gpgold, Gtot, Gir, Gtc, DUrev, DUsanc)$$

The Gner, Dinf, Dm, Dvm, Gdb, Gbp, Gge, Ggdp, Giratio, Gnx, Goilre, Gopn, Gpop, Gpgpold, Gtot, Gir, Gtc represent the growth of annual exchange rate in te market, the difference in Iran and the USA inflation, the annual growth rate of speed of the money flow, the annual growth rate of budget deficit, the annual growth rate of balance payment, the annual growth of government expenditure, the annual growth rate of GDP, the annual growth rate of ratio of investment to GDP, the annual growth of net export, the annual growth rate of open economy,

the annual growth rate of population, the annual growth rate of oil income, the annual growth rate of the world gold price, the annual growth rate of terms of trade, the annual growth rate of interest rate, and the annual growth rate of propensity to consumption, respectively. As the exchange rate experienced a jump following the sanctions in 2012, the economic sanctions are considered as a dummy variable in this model. We used the time series data in the period of 1979-2016. We extracted the data from the Central Bank of Iran and World Bank sites. The Stepwise Lease square method was also used to select the factors that affect the exchange rate.

4. Conclusion

The results of this study indicate the growth of nominal exchange rate has a negative relationship with the growth of government expenditures, oil income and net export, and has a positive relationship with an increase in the interest rate, the growth of GDP , the difference in domestic and foreign inflation, and budget deficit. Also, the expectations as well as the economic sanctions are among the important factors that affect the exchange rate in Iran.

In terms of results, we suggest that the government avoid currency command specification. Also, the Central Bank is suggested no to keep the exchange rate fixed, because, in this situation, the power of Central Bank to control inflation would decrease .

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