Investigating the Factors Affecting the Adjusted Currency Crisis Index in Iran: Logit regression approach

Mohammad kalami[1], Behzad salmani[2] and Hoseein asgharpour[3]

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Abstract:

The frequent occurrence of foreign exchange crises in recent years has brought back early warning literature to the focus of researchers .The aim of this study is to introduce a warning pattern before the crisis of the foreign exchange crisis in Iran. The purpose of this study was to introduce a warning pattern before the onset of the currency crisis in Iran. In recent years, a concept has been developed for an Early Warning System (EWS), which should be able to identify costly events such as currency crises in order to create enough time to reduce the cost of the crisis for economic researchers. In this study, factors affecting the contingency of an Iranian currency crisis during the years 1981-2016 are examined using a discrete dependent variable model in the Logit model. This study uses a combination of exchange rate changes, foreign exchange reserves and bank interest rate to calculate the adjusted currency crisis index. The results of the estimate logit model shows that the increase in variable ratio of budget deficit to GDP ratio of current account deficit to GDP ratio of domestic credit to the private sector to the GDP and inflation, the probability of a currency crisis increase. In other words, the increase in these variables (as indicators of the advancement of the currency crisis) is causing an intensification in the occurrence of the currency crisis. Other research results suggest that an increase in the GDP growth rate will reduce the probability of a currency crisis. This study uses a combination of exchange rate changes, foreign exchange reserves and bank interest rate to calculate the adjusted currency crisis index. The elasticity of government deficit to GDP ratio indicates that a one percent increase in this variable, assuming other variables are constant. Increases the probability of a currency crisis by 0.48 percent. On the other hand, the marginal

Effect on the ratio of state budget deficit to gross domestic product (gdp) shows that in return for a single increase in this variable, the probability of a foreign exchange crisis will increase by 32 per cent. Thus an increase in the budget deficit is one of the leading factors in the occurrence of the currency crisis. It can be said that if the government

[1] Ph.D. student of International Economics, Tabriz University, Tabriz, Iran.
[2] Professor of Economics at Tabriz University, Tabriz, Iran. (Corresponding Author) (bhsalmani @yahoo.com)
[3] Professor of Economics at Tabriz University, Tabriz, Iran.

finances part of its deficit from the reserve location, this would lead to a decrease in foreign exchange reserves and it increases the probability of a currency crisis in the country. On the other hand, the variable elasticity of the current account deficit to GDP ratio indicates that the probability of occurrence of a currency crisis increases by 0.38 percent for one percent increase in this variable assuming the stability of other conditions. On the other hand, the marginal effect of this variable indicates that the probability of a currency crisis occurring during the period under review increases by about 14% per unit increase in the current account deficit. Another leading indicator of the currency crisis that has a negative impact on the currency crisis is the GDP growth rate. In fact, the elasticity of this variable indicates that the probability of a currency crisis is reduced by 0.03% for a one percent increase in GDP growth rate. On the other hand, its marginal effect also indicates that for a unit increase in GDP growth rate, assuming the stability of other conditions, the probability of a currency crisis decreases by 0.24%. The amount of the variable of financial development variable indicates that for one percent increase in this variable, assuming the stability of other conditions, the probability of currency crisis will increase 0.007 percent. On the other hand, the marginal effect of this variable indicates that the probability of occurrence of currency crisis increases by 0.004% per unit increase in financial development. It should be noted that this coefficient is not statistically significant. Marginal ly, inflation rate elasticity indicates that for one percent increase in inflation rate, assuming the stability of other variables, the probability of currency crisis increases by 1.54 percent. The marginal effect of this coefficient also indicates that by one unit increase in inflation rate the probability of a currency crisis increases by 1.33% Therefore, inflation is also one of the leading factors in the currency crisis.

JEL classification**:** G01, C22, F31

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