Studying the Relation Between Currency Rate, Interest Rate and Inflation Rate Based on Fischer International Theory and Effect Theory in Iran Economy

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Abstract: The aim of this research is to study the fluctuation of currency & interest rates as well as the relation between currency rate, interest rate and inflation rate based on Fischer international theory and Effect theory in Iran economy. Here, the annual data have been applied. So, the currency rate is divided into 2 categories of official and nonofficial ones. The interest rate is divided into one year short term, 3-year midterm, and 5-year long term. First we studied the relation between official & nonofficial currency rate with interest rate (long, mid and short term), and then the relation between inflation rate and the same interest rates during 1991-2009 in Iran economy. To test any relation between parameters and estimated meaningful models, the first grade linear regression as well as minimum squares method, econometry methods-particularly fisher’s presented model were used by applying Eviews and pass 17 software’s. The results showed a meaningful relation between 3-year official interest rate, one-year and 5-year and nonofficial interest rate, and between inflation rate and 1-year interest rate. Based on results we can say that generally there is a reverse relation between interest rate and currency rate in Iran economy, and a direct & positive relation between inflation rate and interest rate.

Key words: currency rate, interest rate, inflation rate, Fischer international effect theory Fischer effect theory.

INTRODUCTION

The issues regarding currency rate, interest rate and inflation rate are among main issues of policy making in developing countries.

Currency rate is considered as such a key economic variable in policy making that some experts in developing countries name it a nominal anchor. Exchange rate is highly affected by financial factors particularly interest rate. Many researchers believe that interest rate affects currency rate. Currency determines commercial trend, inflation, capital flows and foreign investment inflation, savings, and international payments in an economy. (Aziz 2008).

When stock holders attack the currency of a country, of a country, controlling currency rate –even under government protection- may be highly expensive and even useless. High interest rate prevents capital return and economic growth, and finally damages the economy. (Solnik 2000) several factors influence variation of currency rate including changes in foreign demon and supply, amount of payment problems, inflation growth, interest rate, national income, financial supervisions, and changes in predictions and stock market (Khalvati 2000).

On the other hand, many attempts have been made to adjust interest rate during recent decades because of remarkable influence of this parameter in solving or making economic problems and disorders in some societies. Interest rate refers to a sum paid by borrower for using a capital temporarily it also indicates that borrower delays in using its liquidity in order to receive more benefit. Interest rate is like a double bladed sward: if interest rate increases, the owners of surplus financial resources will lend parts of them with the expectation of receiving more profit in future. In other words, high interest rate persuades them to lend their surplus liquidity to others. However, it should be mentioned that in balances states, interest rate is balanced with supply (investment) and demand (saving) in capital market (Duetsche Bundesbank 2001). Fischer international effect theory states that foreign exchanges with relatively high interest rate will move toward lower prices because high nominal interest rate reveals expected inflation rate (Madura 2000). This theory also shows that changes in spot exchanges rate between 2 countries will move toward same changes in nominal interest rate (Demirag and Goddard 1994). It is very important for economic policy makers to answer this question: ‘what’s the relation between currency rate and interest rate, and how does interest rate react occurred fluctuation in currency rate?’ Regarding changes in currency rate, interest rate and inflation, Fischer international effect theory states that prospective currency rate can be determined by changes in nominal interest rate. Changes in predicted inflation within nominal interest rate is expected to influence cash currency rate in future (Sundqvist 2002). Another
objective of this research to study the relation between inflation rate and interest rate. Finally these 2 parameters were tested. Therefore, this research analyzes the effect of interest rate changes on currency rate changes according to Fischer international theory. Moreover, the effect of inflation rate on interest rate changes is studied base on Fischer Effect Theory.

Here, theoretical concepts of currency rate, interest rate and inflation rate are first studied according to various economists. Then the performed studies regarding research subject are presented. Afterwards, the applied model for testing the parameters of this article are introduced. Finally, the findings from testing the hypotheses are analyzed.

2- Theoretical Concepts:
2-1- Fischer International Theory:
Fischer International Theory explain the relation between interest rate changes between 2 countries and expected changes in currency rate. According to this theory, the real output of the investors in local stock market is the same as foreign interest rate and making change in the value of foreign currency (Madura 2000). The equation of real output or efficient output (adjusted currency rate) is:

\[ r = (1+i_h)(1+e_f)-1 \]  

Where,
- \( r \) = real output of investors
- \( i_h \) = foreign interest rate
- \( e_f \) = the percentage of changes in the value of foreign currency (Madura 2000).

Therefore, Fischer international Effect Theory suggests that foreign currency market \( E(r) \) should be equal with interest rate of investment in local money market \( (i_h) \). Since in average, efficient output in a foreign investment should be equal with efficient output in a local investment, therefore:

\[ E(r) = i_h \]  

To provide investment opportunities either locally or globally, and to obtain similar interest rate, \( r \) should be adopted by \( i_h \) and foreign currency should change in order that \( i_h = r \). therefore, \( 1-(1+e_f)(1+i_h) = i_h \)

\[ r = \text{real output of foreign deposit}, \]
\[ i_h = \text{interest rate internal deposit} \]
\[ i_h \] is presented as follows to show the value of foreign currency (\( e_f \)). Finally the function of IFE theory is formulated as follows:

\[ e_f = \frac{(1+i_h)}{(1+r)} - 1 \]  

Equation (3)

It can be concluded that when local interest rate is lower than foreign interest rate, the value of foreign currency will decrease because the exceeding of foreign interest rate from local one will cause collapse in the value of foreign currency. (Utami, Inanga 2009).

2-2- Currency Rate:
Since currency rate presented as floating and/or managed floating in global economy (1974 up to now), many attempts have been made to identify the parameters which can explain currency rate fluctuation, and specify their effect on currency rate. Due to many deep transformations in currency systems, this parameter plays, significant role in economic policies. Currency rate means the number of national monetary unit of a country which is needed to purchase one unit of national currency of another country. (Mohammad Masah 2009).

2-3- Fischer Effect Theory:
Fischer believe that real interest rate is apart from monetary frames. Fischer equation is as follows:

\[ r_r = r_n - \pi^e \]  

Equation (4)

Where:
- \( r_n \) = nominal interest rate, \( \pi^e \) = expected inflation rate, \( r_r \) = real interest rate.
All high interest rate are constant and combined. However, Fischer applies the following equation for simple rates:
When \( r_n \) increases, \( \pi_e \) also goes up.

Fischer says that nominal interest rate is complied with expected inflation. Researches believe that any increase in monetary growth rate leads to higher inflation rate, but nothing occurs to real parameters. Careful application of this principle leads to money influence on interest rate. This parameter (interest rate) is very important in understanding micro-economy because they represent economy and prospective economy as well as their effects on investment and savings (Kong Mary 2002).

2-4- Relation between Interest Rate and Inflation Rate:

Wicksell introduces the following model to describe the relation between interest rate and inflation, and believes that interest rate gap as \( \psi > 0 \) determines inflation effectively:

\[
\pi_{t+1} = (r^{*} - r_{t})
\]

Equation (6)

Where:

- \( \pi \) = inflation rate
- \( P \) = price level
- \( r^{*} \) = natural interest rate
- \( r \) = real interest rate

But Brzoza believed that such a description is not worth, and he applied the following amended model to show some constant status of the equation above.

\[
\pi_{t} = a\pi_{t-1} + \psi(r^{*} - r_{t}), 0 < a < 1
\]

Equation (7)

- When there is no gap in interest rate, inflation rate becomes zero and prices are fixed. Brzoza said that in the time of expanding monetary policies (interest rate \( r^{*} > r \)), inflation will occur, and in contracting monetary policy, prices will decrease (\( r^{*} < r \)).

- Perpetual high inflation rates are related to permanent low real rates provide that natural rates are completely durable.

### Table 1: features of amended model.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Model 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>( r=r^{*} )</td>
<td>( \pi = \Delta P = \psi(r^{*} - r) )</td>
</tr>
<tr>
<td>( r&gt;r^{*} )</td>
<td>( P \downarrow )</td>
</tr>
<tr>
<td>( r&lt;r^{*} )</td>
<td>( P \uparrow )</td>
</tr>
</tbody>
</table>

This model is applied by Central Bank in economy as a controlled machine. When interest rate is fully under pressure (interest rate the gap of interest rate develops \( r^{*} > r \)), inflation grows faster, and when interest rate tends to decrease (interest rate \( r^{*} = r \)), inflation rate tends to be zero.

2-5- Interest Rate:

Interest is defined in various ways. The amount which is paid at the time of using capital is called interest. When the amount of payable interest to the capital is presented in percentage, it is called interest rate.

Fischer states that interest rate is the percentage of payable bonus based the money on a fixed date. Indeed, interest rate is a kind of charge to be paid for a loan. It is also the most important and effective factor reinforcing a national currency (Mohammad Masah 2009).

2-6- Inflation Rate:

Researches done on developed and some newly appeared economies show that despite the increase in global price of raw materials such as oil, steel, and making extending monetary policies in most of countries, the price levels have increased less and inflation rate have been less than predicted values. In other words the
common models of predicting inflation have been estimated more than their real situation (Tayebnia & Zandieh 2009).

Many surveys have been done by researchers to identify the reasons for inflation in Iran economy. All of them concluded that liquidity volume is a main factor in formation of Iran inflation. Other researchers such as Bahman Oskooi (1994), Bafekr (1998), Tavakoli (2003) don’t consider liquidity as a factor of inflation. However, they acknowledge its effect on inflation. In empirical research, they applied econometric models to test the relation between inflation rate and other determining parameters such as liquidity (Hadyan and Pars 2008).

3- Empirical Studies:
Piter Abdullah et.al (2010) made a contrastive study regarding the relation between inflation rate and real currency rate in member countries of South East Asian Union, and European and Northern American Union during 1991-2005. their findings are divided into 2 following categories:
- There is a strong relationship between inflation and real currency rate in Asian Countries but this rate drastically in European and North American Union.
- Asian financial crisis seems to have local effect, but they haven’t had a significant effect on currency rate in European and North American union. The results emphasize on the significance of managing inflation as an economic factor.

Utami and Inanga (2009) studied the relation between currency/interest/inflation rates in Indonesia. They studied various interest rate on currency rate base on Fischer International Effect Theory, and inflation rate on interest rate based on Fischer effect theory, and compared America, Japan, England, Singapore with Indonesia (as a home land) during 2003-2008. they concluded that Fischer international effect theory is effective for that but it is not remarkable for England, Singapore and America. Also interest rate changes have a very negative effect on currency rate changes in Japan. Therefore Fischer effect theory does not work in Japan because when local interest rate is higher than international one, the foreign currency decreases but it is not true in Japan. The researchers finally announced that inflation rate changes have positive effect on interest rate changes, so by any increase in inflation rate, the interest rate changes also increase. In means Fischer effect theory for inflation rate and interest rate changes in Indonesia does not exist contrary to the 4 foreign countries including America, Japan, Singapore and England.

Edrem Gul and Aykut Ekinci (2006) studied the relation between nominal interest rate and inflation rate in Turkey. They tried in their research article to investigate economic status of Turkey during 1984-2003 by applying monthly observations and frequency percentage. The results showed a relation between nominal interest rate and inflation rate in a unique and guided way, interest rate nominal interest rate determines future path of inflation.

Masao Ogaki and Julio Santaella (2005) empirically studied the effects of interest rate on currency rate in Mexico and found that 1-month and 3-month interest rate fluctuation in Mexico has a reverse effect on currency rate.

4- Methodology:
The existing research is an applied one in vies of objective, and regressive in view of function. Inductive method is also used in this research. So that to test the research hypothesis, some annual data are applied and after testing, their results are studied by confirming or rejecting the hypothesis. Moreover, the findings have can be generated to the whole statistical society. To test the research hypothesis, econometric methods are applied, and Eviews 7 software is used for data analysis. The research also has 9 hypothesis for official currency rate, nonofficial currency rate, one-year short term interest rate, 3-year mid term interest rate, 5-year long term interest rate, and inflation factor.

1-4- Statistical Society:
The statistical society of this study is Iran economy. We applied our considered data and statistics to find the relation between currency rate and interest rate with the help of Fischer international effect theory and Fischer effect theory. Then the tests are studied according to Iran economy.

2-4- Sample Volume:
This research is done regarding the objectives of Iran economy. The entire statistical society have is Iran economy and no sampling was done because time series data were applied for 1991-2009 on a yearly basis.

3-4- Data Collection Method:
Here, two methods were applied: library and attributive data. They were collected from economic statistics of Central Bank of Islamic Republic of Iran.
4-4- Testing Duration To Estimate Regression:

Here, Dickey Fuller method was applied for duration of parameters. It is necessary to determine duration and non-duration of parameters before estimating the model. To do this, Dickey Fuller unit root test and Eviews Software were used and tested for each model parameter. The results are shown in table 2.

Table 2: Dickey Fuller test results for each parameter.

<table>
<thead>
<tr>
<th>Parameters</th>
<th>parameter</th>
<th>Optimal pause</th>
<th>Statistic ADF</th>
<th>F value in 0.05</th>
<th>Duration degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Official currency rate</td>
<td>UE1</td>
<td>1</td>
<td>-4/54</td>
<td>-3/26</td>
<td>I(0)</td>
</tr>
<tr>
<td>Nonofficial currency rate</td>
<td>UE2</td>
<td>1</td>
<td>-6/02</td>
<td>-3/26</td>
<td>I(0)</td>
</tr>
<tr>
<td>1-year interest rate</td>
<td>R1</td>
<td>1</td>
<td>-3/98</td>
<td>-3/26</td>
<td>I(0)</td>
</tr>
<tr>
<td>3-year interest rate</td>
<td>R3</td>
<td>1</td>
<td>-5/23</td>
<td>-3/26</td>
<td>I(0)</td>
</tr>
<tr>
<td>5-year interest rate</td>
<td>R5</td>
<td>1</td>
<td>-4/45</td>
<td>-3/26</td>
<td>I(0)</td>
</tr>
<tr>
<td>Inflation rate</td>
<td>P</td>
<td>1</td>
<td>-3/95</td>
<td>-3/26</td>
<td>I(0)</td>
</tr>
</tbody>
</table>

As we see in the table, all durable parameters have I(0) duration degree on surface, interest rate the value of ADF statistic unit root is bigger than F value in 5% level. Therefore the model or extracted regression is durable and valid.

4-5- Presenting The Estimated Model:

Regarding Fischer model, the following econometric criteria and economic theory was used as the best model.
Model (1) is for estimating the function between interest rate and currency rate
\[ Y = F( X ) \]
\[ Y = B_0 + B_1 x + v_i \]
\[ UE = F( R ) \]
Model (2) is for estimating linear regression between inflation rate and interest rate
\[ R = F( p ) \]
\[ R = A + a P \]
Where,
\[ UE = \text{currency rate (UE1= official, UE2= nonofficial)} \]
\[ R= \text{interest rate (R1= one year, R3=3 year, R5= 5 year)} \]
\[ P= \text{inflation rate} \]

5- Empirical Results:

Hypothesis 1: there is a relation between 1-year interest rate and official currency rate (H1)

Table 3:

<table>
<thead>
<tr>
<th>Std Error</th>
<th>R1</th>
<th>T2</th>
<th>F</th>
<th>Sig</th>
<th>R2 Square</th>
<th>R</th>
<th>Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>603.154</td>
<td>270.66</td>
<td>0.449</td>
<td>0.201</td>
<td>0.659*</td>
<td>0.012</td>
<td>0.108*</td>
<td>R1</td>
</tr>
</tbody>
</table>

From: Eviews Output

As we see in the table in the estimated model, the correlation intensity between independent variable (UE1) and dependent variable (UE2) is 0.108 On the other hand, R square shows that 0.012 percent of resulted changes from dependent.

Hypothesis 2: there is a relation between 3-year interest rate and official currency rate (H1).

Table 4:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable name</th>
<th>Value of estimated</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original currency</td>
<td>B0</td>
<td>46.37</td>
<td>0.03</td>
</tr>
<tr>
<td>3-year interest rate</td>
<td>R3</td>
<td>06.8</td>
<td>0.04</td>
</tr>
<tr>
<td>11.73</td>
<td>F-Statistic</td>
<td>T1=1.98</td>
<td>T2=1.98</td>
</tr>
<tr>
<td>2.09</td>
<td>Durbin-Watson stat</td>
<td>R²= 0.36</td>
<td>R=0.60</td>
</tr>
</tbody>
</table>

From: Eviews output

\[ Y = F( X ) \]
\[ Y = B_0 + B_1 x + v_i \]
\[ UE1 = 46/37 – 9/80 r3 \]

According to determined coefficient, 36 percent of dependent variable changes (official currency rate) is due to changes in independent variable, the coefficient of 3-year interest year in the estimated function is found -9.80. Therefore, if 3-year interest rate increases 1% in the country, official currency rate will decrease 9.80%. So, there is a negative or reverse relation between 3-year interest rate and official currency rate and H1 will be accepted.
Hypothesis 3: there is a relation between 5-year interest year and official currency rate (H1).

Table 5:

<table>
<thead>
<tr>
<th>variable</th>
<th>R</th>
<th>R2 Square</th>
<th>Sig</th>
<th>F</th>
<th>T2</th>
<th>R5</th>
<th>Std</th>
</tr>
</thead>
<tbody>
<tr>
<td>R5</td>
<td>0.116*</td>
<td>0.013</td>
<td>0.667*</td>
<td>0.231</td>
<td>-0.481</td>
<td>-31.483</td>
<td>65.779</td>
</tr>
</tbody>
</table>

From: Eviews output

Based on the results, there is no meaningful relation between 1-year interest year and official currency rate.

Hypothesis 4: there is a relation between 5-year interest rate and non-official currency rate (H1)

Table 6:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable name</th>
<th>Std</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original currency</td>
<td>B0</td>
<td>56.66</td>
<td>0.012</td>
</tr>
<tr>
<td>1-year interest rate</td>
<td>R1</td>
<td>-15.107</td>
<td>0.036</td>
</tr>
<tr>
<td>15.21</td>
<td>F-Statistic</td>
<td>T1=3.04</td>
<td>T2=2.28</td>
</tr>
<tr>
<td>2.14</td>
<td>Durbin-Watson stat</td>
<td>R²= 0.23</td>
<td>R= 0.48</td>
</tr>
</tbody>
</table>

From: Eviews output

Y = F( X )

Y = B0 + B1x + v1

UE2= 58/66 – 15/107 r1

It is clear from the table that in estimated function based on Fischer model, all variables coefficient are meaningful. According to the coefficient 48% of dependent variable changes (nonofficial currency rate) is because of independent variable changes (1-year interest rate). The coefficient of 1-year interest rate in estimated regression function is 15.10. Therefore, if 1-year interest rate increases 1% in the country, nonofficial interest rate will decrease to 15.10%. So, there is a negative or reverse relation between 1-year interest rate and nonofficial currency rate and H1 will be accepted.

Hypothesis 5: there is a relation between 3-year interest rate and nonofficial currency rate (H1).

Table 7:

<table>
<thead>
<tr>
<th>variable</th>
<th>R</th>
<th>R2 Square</th>
<th>Sig</th>
<th>F</th>
<th>T2</th>
<th>R3</th>
<th>Std error</th>
</tr>
</thead>
<tbody>
<tr>
<td>R3</td>
<td>0.114*</td>
<td>0.000</td>
<td>0.954*</td>
<td>0.003</td>
<td>-0.058</td>
<td>-24.623</td>
<td>422.566</td>
</tr>
</tbody>
</table>

From: Eviews output

The results show that non meaningful relation exists between 3-year interest rate and nonofficial currency rate, and H1 is rejected.

Hypothesis 6: there is a relation between 5-year interest rate and nonofficial currency rate (H1).

Table 8:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable name</th>
<th>Std coefficient</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original currency</td>
<td>B0</td>
<td>60.34</td>
<td>0.017</td>
</tr>
<tr>
<td>5-year interest rate</td>
<td>R5</td>
<td>-8.816</td>
<td>0.041</td>
</tr>
<tr>
<td>13.91</td>
<td>F-Statistic</td>
<td>T1=2.66</td>
<td>T2=4.38</td>
</tr>
<tr>
<td>2.07</td>
<td>Durbin-Watson stat</td>
<td>R²= 0.26</td>
<td>R= 0.51</td>
</tr>
</tbody>
</table>

From: Eviews output

Y = F( X )

Y = B0 + B1x + v1

UE2= 60/34 – 8/816 r5

It is clear from the table that in estimated function based on Fischer model, all variables coefficient are meaningful. According to the coefficient 26% of dependent variable changes (nonofficial currency rate) is because of independent variable changes (5-year interest rate). The coefficient of 1-year interest rate in estimated regression function is 8/81. Therefore, if 5-year interest rate increases 1% in the country, nonofficial interest rate will decrease to 8/81%. So, there is a negative or reverse relation between 5-year interest rate and nonofficial currency rate and H1 will be accepted.

Hypothesis 7: a relation exists between inflation rate and 1-year interest rate (H1).

Table 9:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable name</th>
<th>Std coefficient</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original currency</td>
<td>B0</td>
<td>1.09</td>
<td>0.001</td>
</tr>
<tr>
<td>5-year interest rate</td>
<td>P</td>
<td>1.52</td>
<td>0.023</td>
</tr>
<tr>
<td>10.29</td>
<td>F-Statistic</td>
<td>T1=14.98</td>
<td>T2=2.54</td>
</tr>
<tr>
<td>1.98</td>
<td>Durbin-Watson stat</td>
<td>R²= 0.532</td>
<td>R= 0.731</td>
</tr>
</tbody>
</table>
From: Eviews output

\[ Y = B_0 + B_1x + v_i \]

It is clear from the table that in estimated regression, all variables coefficient are meaningful. According to the coefficient 53% of dependent variable changes (1-year interest rate) is because of independent variable (inflation rate). The coefficient of creases 1% in the country, interest rate will increase to 1/52%. So, there is a direct and possible relation between 1-year interest rate and inflation rate.

Hypothesis 8: a relation exists between inflation rate and 3-year interest rate (H1).

<table>
<thead>
<tr>
<th>Table 10:</th>
<th>variable</th>
<th>R</th>
<th>R² Square</th>
<th>Sig</th>
<th>F</th>
<th>T2</th>
<th>R3</th>
<th>Std error</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>0.94*</td>
<td>0.009</td>
<td>0.702*</td>
<td>0.151</td>
<td>0.389</td>
<td>0.018</td>
<td>0.046</td>
<td></td>
</tr>
</tbody>
</table>

From: Eviews output

Since the correlation intensity between independent variable (inflation rate) and dependent variable (3-year interest rate) is 0.94, and R Square shows that 0.009% of changes from dependent variable (i.e 3-year interest rate) is because of independent variable changes (inflation rate) which is not acceptable, we can say that no meaningful relation exists between 3-year interest rate and inflation rate.

Hypothesis 9- there is a relation between 5-year interest rate and inflation rate (H1).

<table>
<thead>
<tr>
<th>Table 11:</th>
<th>variable</th>
<th>R</th>
<th>R² Square</th>
<th>Sig</th>
<th>F</th>
<th>T2</th>
<th>P</th>
<th>Std error</th>
</tr>
</thead>
<tbody>
<tr>
<td>P</td>
<td>0.008*</td>
<td>0.001</td>
<td>0.975*</td>
<td>0.001</td>
<td>0.031</td>
<td>0.001</td>
<td>0.034</td>
<td></td>
</tr>
</tbody>
</table>

From: Eviews output

Since the correlation intensity between independent variable (inflation rate) and so changes from dependent variable (i.e 3-year interest rate) is because of independent

6- Discussion and Conclusion:

The main objective of this research is to answer this question: “is there a relation between interest rate and currency rate based on Fischer international theory, and a relation between inflation rate and interest rate in Iran economy based on Fischer international effect theory?” interest rate refers to the rate of interest paid to bank deposits as 1-year short term, 3-year mid term, and 5-year long term. Currency rate means official currency rate announced by Central Bank, and nonofficial currency rate or free market currency rate.

The results from the tests show 2 general items:
1- There is negative and reverse relation between interest rate and currency rate.
2- There is a direct and positive relation between inflation rate and interest rate.

According to the results, there is a reverse and negative relation between interest rate and currency rate. So, increased interest rate will cause decreased currency rate. It should be mentioned that higher interest rates will boost and support equal rate of currency rate, so by increasing interest rate we will have more attractive depositing and investment in our country which is called hot money flow. The results show that interest rate can be considered to control currency rate in Iran economy. Central Bank is said to increase money supply, decrease interest rate and consequently decrease exchange rate very soon. So, should general price level go up due to higher money supply, currency rate will decrease in a long run and with slow exchange rate.

On the contrary, there is a direct relation between inflation rate and interest rate. Since all traders of money markets look carefully at general increase in prices and inflation factors, one of the best methods to fight inflation is increasing interest rate and the results of this research acknowledge it. So, Central decreases interest rate when some inflation indexes reveal a number of signs of decreasing general prices.

REFERENCES


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