Effect of Exchange Rate on Financing in Companies Listed in Tehran Stock Exchange (Through Bank Loans and Shares Issue)

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Abstract

The exchange rate in Iran economy has witnessed vast changes during the course of its history; developments of Iran’s economy in recent years, including increase in the general level of prices and exchange rate along with the aim of the government for the economic growth and development have increased the level of money supply needed by the Iranian companies. This important issue has made companies finance their needs in different ways of financing. This research aims to study the exchange rate fluctuation and its impacts on the financing of companies through bank loans and equity shares issue in companies listed in Tehran Stock Exchange; many factors of micro and macro kind moderate financing and many factors affect financing that in this research, interest rate and inflation rate have been considered as mediator variables. This research in terms of its objective is an applied research and in terms of method it is a longitudinal survey. The statistical population of this research consists of all the companies listed in Tehran Stock Exchange during 2007-2012. Simple and multiple regressions have been used for analysis of the data. The results show that the exchange rate is more effective on financing through shares issue than financing through bank loans. We try to evaluate the different methods of financing and deal with advantages and disadvantages of the challenges which raising capital is faced with. The exchange rate has flaunted itself as a key factor in the economic policy more and more. The affecting and being affected of exchange rate fluctuations regarding financing have become one of the common economic issues. Therefore, it is necessary empirically analyze the relationship between exchange rates and financing.

Keywords: Changes in exchange rates, inflation rate, interest rate, bank loans, shares issue.
Introduction

Capital is one of the main components of production. In the past, capital was more understood as the working tools. Governments and business enterprises need to continue to finance their economic activities in order to start or continue them. This capital is provided from the state assets and company owners or the processes of financing. The financing processes are one of financial-economic issues. There are a variety of instruments for financing that each one has its own features. From 1946 to 1973, most of the countries used the Bretton Woods system that means fixed exchange rate was dominant. In addition, after the collapse of this system in the early 1970s, first, most of the industrialized countries adopted a floating exchange rate system, due to this fact, the international economy environment has witnessed significant fluctuations in currencies between the countries and this issue has affected companies, as well. Along with increased trade between countries, exchange rate fluctuation is considered as one of the main sources of risk with which a company is faced with it.

In the less developed or developing countries, the government's role in financing and providing the funds needed for industrial and economic initiatives is very significant, because in these countries due to being underdeveloped or limited development of the private sector, It's still impossible to grant this governments' role, budget allocation, to the private sector and this sector is not able to finance wide range of projects yet. Considering the major role of the government in managing the economy and making decisions and its intense influence of government policy on the stock market, it can be concluded that as regards the impacts of the macro-economic factors such as inflation rate, interest rate, exchange rate, and …. On share pricing, studying them can facilitate the way to a new understanding about this matter, So that investors and shareholders can predict the effects of macro-economic decisions on changes in the share price and index.

In Iran and any other country, which is in the world trade process, exchange rate affects business enterprises activities in a variety of ways. The mentioned effects are applied directly and indirectly. In today world trade, because of the widespread globalization phenomenon and the development of cross-border communication, the economic units of exchange rate and its fluctuations have been arisen as two of the core concerns of companies. However, the fixed exchange rate for a long time by inhibition of some of these fluctuations has reduced the risk of some foreign exchange rates fluctuations for domestic companies to some degrees, the existence of a constant exchange rate fluctuation in the global markets and the rapid rise in the exchange rate make this issue as one of the most important management issues a priority.

Over the past few years, the economic conditions in Iran economy has led to increase in domestic companies need for the new resources of cash for their daily activities. Several factors have contributed to this situation that most important of them are Exchange rate appreciation, economic and political sanctions, increase in the general level of prices and the government's target at development and economic growth. These circumstances have resulted in increase for cash needed by Iranian companies. This increase in need exists, while banks and financial institutions do not also have adequate Financial Resources to provide money supply for companies. On the other hand, the high rate of cost of capital is another deterrent factor. These
conditions have forced companies to raise capital as a remained means of providing financial resources. (JahanKhani, 2012)
Exchange rate is one of the key economic variables that its change and fluctuations has finite effect on the country's economic indexes. This is why the exchange rate is one of the most controversial economic variables and in recent years, it has devoted the major part of the country’s economy technical issues to itself. It might be argued that in the last few months, every day we are subjected to the new currency news and making new rules and regulations overseeing foreign currencies system, which are seen as organizing the foreign currencies system of the country. Changes in exchange rates, commodity market and capital market overshadow the country’s foreign currencies system and it can have devastating effects. In general, we can say that all economies are in some way connected with the outside world. They are affected by the risk of exchange rate and the more this dependency is affected, the more its risk is. Regarding currency and financing a lot of research has been done separately, but about the impact of exchange rate on financing few studies have been conducted. Therefore, it is necessary to empirically analyze and examine the relationship between exchange rate and financing.

Theoretical bases
The process of companies financing is done in two ways: 1. financing through debt, 2- financing through shares issue. (Today other methods are applied such as: Method of financing through Islamic bonds in Islamic countries that is considered as a kind of bonds, or financing by foreign investment.) In the following, we introduce the method of financing through debt or shares issue and their pros and cons.

**Financing through debt:**
Debt is money is given to a business owner quid pro quo a collateral; Provided that the Corpus along with fixed or variable interest rate is paid at a certain time.

<table>
<thead>
<tr>
<th>strengths</th>
<th>weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- The business owner retains their full ownership</td>
<td>1- Personal guarantees are required.</td>
</tr>
<tr>
<td>2- The cost of debt is low.</td>
<td>2- The lender may cause the bankruptcy for business owners.</td>
</tr>
<tr>
<td>3- The loan payments are predictable.</td>
<td>3- The loan amount may be limited to the company's assets value</td>
</tr>
<tr>
<td>4- A period of 5 to 7 years to repay it</td>
<td>4- Repayment must be made regardless of the company's profits</td>
</tr>
<tr>
<td>5- The debt can include the value added of lenders.</td>
<td></td>
</tr>
<tr>
<td>6- Debt creates a series of tax benefits.</td>
<td></td>
</tr>
</tbody>
</table>

The resources of financing through debt:
The main resources of this kind of financing are personal savings, family and friends, business angels, charities, government, banks, factors, financing through the customer, vendor financing, financing through purchase order and credit cards.

**Financing through the issue of shares:**

*Capital* stock is the money, which is prepared by transferring ownership of the company. Stock investor gains the percentage of company ownership that is ideally priced proportional to the company's growth; moreover, the investor may receive part of its annual earnings, which is called dividend, which is determined based on the percentage of ownership. Advantages and disadvantages of this type of financing include:

<table>
<thead>
<tr>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1- personal guarantee is never required</td>
<td>1- Dividend cannot be reduced</td>
</tr>
<tr>
<td>2- No collateral is required</td>
<td>2- Owner finds a new partner</td>
</tr>
<tr>
<td>3- Regular cash repayments are not required</td>
<td>3- This method is very expensive.</td>
</tr>
<tr>
<td>4- Such investors may be investors with value added</td>
<td>4- Entrepreneurs might lose its power.</td>
</tr>
<tr>
<td>5- Stock investors cannot cause the bankruptcy for company.</td>
<td></td>
</tr>
<tr>
<td>6- On average, companies that invest through shares enjoy more rapid growth</td>
<td></td>
</tr>
</tbody>
</table>

**Resources of capital:**

Many resources of debt capital can also be considered as the equity capital. Several theories about the stock market and factors effective on it have been proposed including the model of Markowitz, Sharpe model, capital asset pricing model and pricing model of Arbitrage. The main emphasis of these models is on risk and stock return. The notion of return is generally known and understandable for everyone, but stock market risk has more options and more transparency is needed that among them exchange rate risk can be noted. This risk is caused by changes in stock returns as a result of fluctuations in foreign exchange. All the business enterprises that conduct transactions outside the political boundaries, with countries, which have different currency, are exposed to the exchange rate risk. In addition to having effect on repayment of foreign loans, this risk can also affect the the obligations of the company in the foreign market. In fact, changes in exchange rate overshadow the commodity market and capital market and it can have devastating effects.

Although on the one hand, exchange rate appreciation can be promising for some export-oriented industries about increase in revenue and profitability, on the other hand it should be noted that exchange rate appreciation can result in cash withdrawal from banks and capital markets as the most important place for supply of money for the stock companies. And it may cause the
liquidity of banks and capital markets veer to the parallel markets including gold and foreign currency and not only does this issue disturbs the market order, but also due to the increased demand for the sale of shares by capital market participants it Could lead to increase in the offering of shares on the stock exchange and withdrawal of liquidity from the capital market, that this issue due to the decline in the stock price causes the company plans to raise capital Which aims to reform the financial structure of the company or the capital financing projects not being welcomed by capital market participants, In which case companies may be forced to take out loans from other resources of financing such as banks, rather than the capital market financing. Obtaining the bank loan, while increases corporate debt and increase leverage ratios of companies, it can reduce their profitability and increase their financial costs in the future.

Review of literature:
A great number of researches have been done on the impact of exchange rate on financing and because these issues are of primary importance, in this research, the effect of exchange rate on financing will be dealt with. Reims and others (1975) tested a large sample of companies in various industries in 5 countries. Their research results suggested that the in the countries of France and Japan, the financial structure is significantly different among different industries, while in the United States, the Netherlands, Norway, this difference was not seen in various industries. Then Scott and Martin (1972), by a study conducted in terms of capital structure in the United States concluded that the type of industry is a decisive factor in the company's financial structure. Maximus, Dymerget and Kent (1998) collected evidence on the use of financing methods from outside of the company in order to determine the state of the financial markets of countries and they found out that Legal considerations had encouraged more companies to finance from outside of the company, They also found that capital market being more active has increased companies financing from the outside. Serstys and Pino (2004) studied companies’ methods of financing and investment in a number of developed countries. The result showed that the internal resources are the most important resources of financing in the countries. In most countries, bank financing has a relative importance and financing through shareholders' equity is of little importance. AJashy et al (2008) using the exponential Garch model studied the relationship between exchange rate volatility and stock market in Ghana. The results of study imply that there is a negative correlation between exchange rate volatility and stock market returns. Goldfin and Koopta (2003) examined the relationship between monetary policy and exchange rate after the currency crisis began in 80 countries, and concluded that in the period of crisis decrease in investors' confidence leads to an increase in risk. Therefore, they increase the interest rate and reduce the exchange rate at the same time. This fact instead of establishment of positive correlation between exchange rate and interest rate establishes a negative correlation between them. Adam and Toonboukh (2008) by a study examined the relationship between macroeconomic variables on the Ghana Stock Exchange during the period of 1991-2006, and for doing that, he applied the Johansson Cointegration testing and vector error correction. The results show that the stock price has a positive correlation with the foreign direct investment and
inflation rate, but it has an inverse correlation with exchange rate and interest rate. Pirai and Shahsavari (2008) examined the impact of macroeconomic variables on Iran's capital market and for this purpose; they studied the seasonal economic variables such as GDP, money supply, inflation, exchange rate in the years of 1991-2006. The results indicate that the relationship between stock prices and the general price level of GDP is direct and Shares price has an inverse relationship with exchange rate and money supply. Taghavi et al (1384) in a study to evaluate the contribution of changes in Terms of Trade volatility on the exchange rate volatility in the economy of Iran, concluded that despite the reciprocal changes between the exchange rate and the terms of trade, the terms of trade shocks are negligible when it comes to exchange rate fluctuations, and most of the exchange rate fluctuations in the economy of Iran are due to exchange rate changes. Zare and Rezai (1385) by a study examined the impact of the markets of currency, coins, gold on the companies listed in the Tehran Stock Exchange. In their study, these two researchers used seasonal data of the period of 1995-2003 and they also applied vector error correction model and showed that price indexes of housing and coins have a positive relationship with stock price index, but exchange rate has a negative relationship with stock price index. Rezwan Hejazi et al (2013) in a study entitled the impact of economic factors and the characteristics of the corporation on the company's capital structure in the companies listed in the Stock Exchange, stated that Inflation has an impact on the financial markets and the rate of return on investment that investors receive, so it affects the financial decisions of company. During inflation spell, the real value of debt decreases, and the company needs less actual cash to do its debt obligations, so an increase in inflation increases the cost of debt, this means that they can obtain additional debt, so the positive relationship between inflation and the leverage is expected. Most of the bonds issued all around the world are the international and therefore the exchange rate fluctuations affect them. This risk is not only for rental bonds and includes other financing instruments, which are purchased by foreign investors. Moreover, if the issuer is a foreigner, investors will be exposed to the risk (Seyed Ali, 46,2006) Rahnamaye Rood Poshti et al (2009) by a study examined the relationship between cash obtained from financing activities and a return on equity of companies listed in Tehran Stock Exchange during the period of 1999-2005; Results of their research shows that cash obtained from financing activities has no significant correlation with stock return.

**Research hypotheses:**
In general, by this paper we are going to examine the impact of the exchange rate on the amount financed (through bank loan and shares issue), accordingly:

1. The exchange rate is effective on the amount financed through bank loans (short-term and long-term) as for the interest rate.
2. The exchange rate is effective on the amount financed through bank loans (short-term and long-term) as for the inflation rate.
3. The exchange rate is effective on the amount financed through shares issue as for the interest rate.
4- The exchange rate is effective on the amount financed through shares issue as for the inflation rate. The independent variable of the research is “exchange rate “and mediator variables of the research are interest rates and inflation rate. Since the rising of dollar, value might push for reduction in the general level of prices (inflation), which affects the stock market itself. Discussion in this regard between dollar rate and stocks without regard to inflation rate and interest rates is not possible. The dependent variables of this research are also “methods of financing through bank loan and shares issue”.

**Inflation rate**: Inflation rate is equal to the change in a price index, which is usually the consumer price index. When economists talk about inflation, they mean the growth of the general level of prices. Inflation means we the need to pay more money to buy goods and services. The inflation rate is calculated by using the price indexes; Price index in each year is the weighted average of prices in that year, divided by the weighted average price in the base year, and multiplied by one hundred (100). By base year, we mean the selected year to which we compare the price of each year. The formula for calculating the price index: \[ I_t = \frac{P_t}{P_0} \times 100 \].

If we show the price index in year \( t \) by \( I_t \), and show commodity prices in year \( t \) by \( P_t \) and commodity prices in the base year with \( P_0 \) the above price index is obtained.

**Exchange rate**: Exchange rate in terminology refers to foreign currencies. In fact, it is the price of foreign currency that can be used for trading between countries. That is the reason why these rates have affected the relations between the countries and in some cases have even led to currency wars. In The important internal dimensions, the exchange rate has direct and indirect impacts on all economic variables such as production, investment hypocrisy, independence and inflation. \[ \Delta f = \frac{f_{t} - f_{t-1}}{f_{t-1}} \]

Changes in exchange rates can be defined as the price of the national currency in proportion to the foreign currency that in this study, the official exchange rate of US dollar has been used against rial. The amounts of official exchange rate have been extracted from Central Bank Archive and the grades of changes are calculated using excel software.

**Capital structure**: capital structure has been defined in different ways by a variety of people that we mention some of them. The structure of capital consists of a combination of debt and shareholders' equity, which are adopted as the financial resources ( Antonion etal 2002). The structure of capital is a mixture of debt and shareholders' equity to finance the company's assets for a long period and this structure consists of long-term debt, preferred stock and common stock (Kohher and Rahul, 2007)

**Interest Rate**: The interest rate as one of the financial factors plays a key role regarding economic bases. Interest rate can be defined in different ways: In the macro perspective and business
enterprises viewpoint interest rate is the price needs to be paid to get money or credit, or some people interpret it as the rental, which is paid for renting money. From the perspective of households, it can be said interest rates is the award received due to the postponement of consumption. In this case interest rate represents the rate at which a person can trade today purchasing power with future purchasing power. Interest rate is considered as compensation for inflation cost. Moreover, the most important factor affecting the exchange rate is the interest rate.

Research method:
This research is categorized a correlational study and it based on the regression model in which we have examined the relationship between the dependent and independent variables this research in terms of its objective is an applied research and in terms of its subject nature it is Descriptive –correlational; In order to collect data from information sources and databases we have applied these methods: Using library information (Including the study of internal and external books and publications, as well as looking for through database and application the experience of other researchers(study of papers and theses) in order to achieve the theoretical bases and literature); Using the Central Bank data so as to calculate the exchange rate and inflation rate and interest rate, using data from the Tehran Stock Exchange(Stock Exchange database) And financial statements provided in the Stock Exchange Website, The use of Rah Avarade Novin and Tadbir Pardaz pieces of software and the geographical scope of the study is Tehran Stock Exchange. The time scope of the study is based on data collected in 2014 which were for the period of 2007-2012. This study in terms of its subject examines the impact of exchange on financing through bank loan and shares issue regarding inflation rate and interest rate. The statistical population of this study consists of all the companies listed in Tehran Stock Exchange during a six-year period of 2007-2012, which conducted their financing through bank loan and shares issue. The selected Sample consists of all firms listed in Tehran Stock Exchange which do not meet the following conditions:

1- Companies that are in the group of financial reselling  
2- Companies that have raised capital from retained earnings and reserves  
3- Companies which their performance period is not 12 months.  
4- Companies that their fiscal year does not end on March 20th.  
5- Companies that are not among ceased companies.  
6- Companies that their financial information is available in the period of 2007-2012.  

In order to analyze the data and determine the relationship between the variables we have applied the correlation coefficient and in order to study the impact of independent variable on the dependent one and dual or multiple regression have been used. Preliminary data after being extracted from the mentioned is input to Excel software, so that by doing some calculations, the variables of both primary and secondary research hypotheses are obtained. Then In order to analyze the results obtained from variables measurement we input them to SPSS software in order to test the research hypotheses, and it has high potential of the analysis. In this study, first, we measure report descriptive statistics of the data and the variables and then Pearson correlation
matrix for all variables is presented, after doing that we conduct the needful hypothesis for each hypothesis and test results are reported. In order to determine the rate of time-correlation relation between variables, first, we calculated multiple regression models were fitted to estimate the regression coefficient.

Hypothesis test:
Chart 1: Interest rate and inflation rate and exchange rate during the period of: 2007-2012

<table>
<thead>
<tr>
<th>Year</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest rate</td>
<td>0.184</td>
<td>0.254</td>
<td>0.1080</td>
<td>0.124</td>
<td>0.215</td>
<td>0.305</td>
</tr>
<tr>
<td>inflation rate</td>
<td>0.16</td>
<td>0.19</td>
<td>0.18</td>
<td>0.17</td>
<td>0.20</td>
<td>0.20</td>
</tr>
</tbody>
</table>

In this section we conduct the research hypotheses testing, first, before we enter the dependent and mediator variables into the model, we conduct the testing of the independent variable on the dependent variable with the assumption that other variables are constant.

The first primary hypothesis of research: The exchange rate is effective on the amount financed through bank loan:

Chart 3: The test results of correlation coefficient between exchange rate and the amount financed through bank loan:

<table>
<thead>
<tr>
<th>Method of variables entry</th>
<th>Simultaneous entry of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.470</td>
</tr>
<tr>
<td>Coefficient of Determination</td>
<td>0.221</td>
</tr>
</tbody>
</table>

In order to determine the relation between the variables of exchange rate and the average of amount financed through bank loan we have applied the correlation coefficient. The correlation coefficient indicates the intensity and type of the relationship. The correlation coefficient between exchange rate and the average of amount financed through bank loan was equal to 0.470, and the relationship is direct in this test. Moreover, the Coefficient of Determination (it is a Coefficient that shows the Rate of variability in the dependent variable, which can be explained by the regression) was equal to 0.221, and it shows that 22% of the average change in bank loan is due to changes in the exchange rate.

The equation of regression line is as follows:

\[ \bar{Y} = 9139.705 + 0.470x_1 \]

The results obtained from the regression testing between exchange rate and the average of amount financed through bank loan suggest that One unit change in the exchange rate will lead
to on average 0.470 unit change (the unit of change is million rials equal to around 32 USD) in the amount financed through bank loan.

**The second primary hypothesis of research:** The exchange rate is effective on the amount financed through shares issue:

**Chart 4:** The test results of correlation coefficient between exchange rate and the amount financed through shares issue:

<table>
<thead>
<tr>
<th>Method of variables entry</th>
<th>Simultaneous entry of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.877</td>
</tr>
<tr>
<td>Coefficient of Determination</td>
<td>0.770</td>
</tr>
</tbody>
</table>

The correlation coefficient between exchange rate and the average of amount financed through shares issue was equal to 0.877, and the relationship is direct in this test. Moreover, the Coefficient of Determination is a Coefficient that shows the Rate of variability in the dependent variable, which can be explained by the regression) was equal to 0.770, and it shows that 77% of the average change in shares issue is due to changes in the exchange rate.

The equation of regression line is as follows:

\[
\bar{Y} = 8738.472 + 0.877x_1
\]

The results obtained from the regression testing between exchange rate and the average of amount financed through shares issue suggest that One unit change in the exchange rate will lead to on average 0.877 unit change (the unit of change is million rials equal to around 32 USD) in the amount financed through shares issue. As the results of regression and correlation coefficient show that exchange rate and the average of amount financed through shares issue have a more influential and effective relation.

**The first sub-hypothesis:** The exchange rate is effective on the amount financed through bank loan as for the interest rate.

**Chart 5:** The test results of correlation coefficient between exchange rate and the amount of bank loan as for the interest rate:

<table>
<thead>
<tr>
<th>Method of variables entry</th>
<th>Simultaneous entry of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.935</td>
</tr>
<tr>
<td>Coefficient of Determination</td>
<td>0.874</td>
</tr>
</tbody>
</table>

The multiple correlation coefficients between exchange rate and the average of amount financed through bank loan as for the interest rate for the period of 2007-2012 was equal to 0.935 and the relationship is direct in this test. Moreover, the Coefficient of Determination was equal to 0.874
that shows that about 87% of changes in the average of bank loan as for the average of interest rate is due to changes in exchange rate.

The equation of regression line is as follows:

$$\bar{Y} = -4460.773 + 1.651x_1 - 1.431x_2$$

The results obtained from the regression testing between the variable of exchange rate and the average of bank loan as for the average on interest rate suggest that One unit change in the exchange rate will lead to on average 0.874 unit change in the amount financed through bank loan.

The second sub-hypothesis: The exchange rate is effective on the amount financed through bank loan as for the inflation rate.

**Chart 6:** The test results of correlation coefficient between exchange rate and the amount financed through bank loan as for the inflation rate:

<table>
<thead>
<tr>
<th>Method of variables entry</th>
<th>Simultaneous entry of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.598</td>
</tr>
<tr>
<td>Coefficient of Determination</td>
<td>0.357</td>
</tr>
</tbody>
</table>

The multiple correlation coefficients between exchange rate and the average of amount financed through bank loan as for inflation rate during the period of 2007-2012 was equal to 0.598 and the relationship is direct in this test. Moreover, the Coefficient of Determination was equal to 0.357 that shows that about 36% of changes in the average of bank loan as for the average of inflation rate is due to changes in exchange rate.

The equation of regression line is as follows:

$$\bar{Y} = -7014.057 + 0.687x_1 - 0.428x_2$$

The results obtained from the regression testing between exchange rate and the average of bank loan as for inflation rate suggest that one unit change in the exchange rate will lead to on average 0.687 unit change in the amount financed through bank loan.

The third sub-hypothesis: The exchange rate is effective on the amount financed through shares issue as for the interest rate.

**Chart 7:** The test results of correlation coefficient between exchange rate and the amount financed through shares issue as for the interest rate:

<table>
<thead>
<tr>
<th>Method of variables entry</th>
<th>Simultaneous entry of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.929</td>
</tr>
<tr>
<td>Coefficient of Determination</td>
<td>0.863</td>
</tr>
</tbody>
</table>

The multiple correlation coefficients between exchange rate and the average of amount financed through shares issue as for the interest rate was equal to 0.929, and the relationship is direct in
this test. Moreover, the Coefficient of Determination was equal to 0.863 that shows that about 86% of changes in the average of shares issue as for the average of interest rate is due to changes in exchange rate.

The equation of regression line is as follows:
\[ \bar{Y} = -1664.134 + 1.322x_1 - 0.539x_2 \]

The results obtained from the regression testing between the variable of exchange rate and as for changes in interest rate suggest that one unit change in the exchange rate will lead to on average 0.53 unit change in the amount financed through shares issue.

The fourth sub-hypothesis: The exchange rate is effective on the amount financed through shares issue as for the inflation rate.

**Chart 8:** The test results of correlation coefficient between exchange rate and the amount financed through shares issue as for the inflation rate:

<table>
<thead>
<tr>
<th>Method of variables entry</th>
<th>Simultaneous entry of variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Correlation coefficient</td>
<td>0.879</td>
</tr>
<tr>
<td>Coefficient of Determination</td>
<td>0.773</td>
</tr>
</tbody>
</table>

The multiple correlation coefficients between exchange rate and the average of amount financed through shares issue as for the inflation rate was equal to 0.879, and the relationship is direct in this test. Moreover, the Coefficient of Determination was equal to 0.773 that shows that about 77% of changes in the average of shares issue as for the average of inflation rate is due to changes in exchange rate.

The equation of regression line is as follows:
\[ \bar{Y} = -2432.598 + 0.909x_1 - 0.063x_2 \]

The results obtained from the regression testing between the variable of exchange rate and as for changes in inflation rate suggest that one unit change in the exchange rate will lead to on average 0.63 unit change in the amount financed through shares issue.

**Chart 9:** Summary of research testing results

<table>
<thead>
<tr>
<th>Research variables</th>
<th>( \beta ) (exchange rate)</th>
<th>Rank</th>
<th>R</th>
<th>( \tau^2 )</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exchange rate- bank loan</td>
<td>0.470</td>
<td></td>
<td>0.470</td>
<td>0.221</td>
<td></td>
</tr>
<tr>
<td>Exchange rate- Shares issue</td>
<td>0.877</td>
<td></td>
<td>0.877</td>
<td>0.770</td>
<td></td>
</tr>
<tr>
<td>Exchange rate- Interest rate- bank loan</td>
<td>1.651</td>
<td>1</td>
<td>0.935</td>
<td>0.874</td>
<td>1</td>
</tr>
<tr>
<td>Exchange rate- Inflation rate- bank loan</td>
<td>0.687</td>
<td>4</td>
<td>0.598</td>
<td>0.357</td>
<td>4</td>
</tr>
<tr>
<td>Exchange rate- Interest rate-</td>
<td>1.322</td>
<td>2</td>
<td>0.929</td>
<td>0.836</td>
<td>2</td>
</tr>
</tbody>
</table>
Shares issue & Exchange rate- Inflation rate-
Shares issue & 0.909 & 3 & 0.879 & 0.773 & 3

Results:
Financing took place in the capital markets during the years 2007-2012 were mainly in the form of raising capital in stock and non-stock companies, and there were not fixed-income securities issued (corporate bonds, Murabaha and rent) at the beginning of the financing period of companies and stock and non-stock resources.
In this research we examined the impact of exchange rate on financing through bank loan and shares issue as for interest rate and inflation rate in the companies listed in the Tehran Stock Exchange during the period of 2007-2012 considering the observation. Dollar value against other currencies is considered as the effective factor on financial markets specially stock market. Since the stock market and the dollar both are affected by inflation process and interest rates, there must be a direct relation between dollar and the market, but quite often in terms of time dimension, and the their effects and interactions last. In fact, one finds priority as regards time. And in general we can say that the rising value of the dollar could put pressure on the general level of prices that it is effective on the stock exchange itself. Talk about the dollar and stock without regard to inflation and interest rates is completely impossible. The real exchange rate in the Iran’s economy was declining in the 2000s. The main reason for the continuing decline in the exchange rate was the steady increase of oil revenues on the one hand and on the other hand injecting almost all that money into the economy by the government that this increase has led to persistent trade deficit and weakening production and employment. According to the research results, the mediator variables of interest rates have the greatest impact on financing through bank loan and shares issue in the companies listed in the Stock Exchange (financial leverage). Concerning this point, this impact on financing through bank loan and shares issue has had a direct relation that the intensity of this relation is stronger as regards bank loan. Moreover, the mediator variable of inflation rate is less effective than that of the interest rate on financing through shares issue and bank loan.
Due to the multiple-correlation coefficient model it is recommended that most lenders should place their focus more on the factors of interest rate and furthermore, with respect to the multiple- correlation coefficient of financing through shares issue, the highest correlation coefficient should be for the interest rate, so the stock buyers are advised to pay attention to above factors. The existence and persistence of inflation in our country reduce the competitiveness of export goods, so to compensate for the loss of competitiveness due to the inflation; exchange rate should be increased proportionately in order to compensate for the loss of competitiveness. It is recommended that the companies included in the statistical population if the exchange rate remains the same as during the period of research and assuming they all the other factors are constant they should finance through share issue because the correlation
coefficient of financing through shares issue is bigger than the correlation coefficient of financing through bank loan.

Suggestions for the future research:

1- The present research should be conducted by separation between different industries and results obtained from different industries should be evaluated and analyzed.

2- It is recommended that this study concerning the variable of capital costs, rate of return, equity ratio and other variables be done.

3- It is recommended that by conducting another research the effect of exchange rate changes on financing in Iran be compared to other countries in order to specify the financing problems in our country.
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