

The Effect Of Exchange Rate Fluctuation And Inflation On Deposited in Meli Bank (The study of top branches of Bushehr province) for the years 2007-2012

Ehsan behravan^{1*} and Iman Jokar²

1- Department of Management, Islamic Azad University, Qeshm International Branch, Qeshm, Iran

2- Faculty of Management and Accounting, Islamic Azad University, Fars Science and Research Branch, Fars, Iran

Corresponding author: Ehsan behravan

ABSTRACT: Exchange rate has always been considered as one of macro-economic factors by the communities. In fact, it has represented the community's economic conditions and considered as one of the most important factors for comparing our economy to international economy. In recent years, a number of factors including sanctions - War - populate - lack of management and ... led to fluctuate in exchange rate, which influenced the deposit of bank customers directly. The unique role of the banking system in attracting deposits and providing financial resources due to the lack of extensive financial markets, poor infrastructure for foreign Deposit and low rates of savings and Deposit in the country are of great importance. The purpose of this paper is to study and analyze the effect of exchange rate fluctuations on Deposit value of customers of Meli Bank (case study, Branches of Bushehr province in 2007-2012).

Keywords: exchange rate , Current Deposits – inflation decrease - Economy.

INTRODUCTION

In economics, the price of a foreign currency (exchange rate) is the same followed by supply and demand as the price of other goods and services. Supposing the constancy of the other conditions, if the demand for exchange have increased , the exchange will increased too. It also noted the increasing in exchange rate lead to increase in the demand for goods that we made and in exchange for purchasing the export goods.

Beside the important and crucial impact of the exchange rate on the economy, the impact of exchange rate fluctuation is also important so that it has its own consequences. In fact, one of the main reasons for supporting the fixed exchange rate system more than the floating exchange rate system is that the system can provide favorable environment for production – trade and international Deposit through reducing the domain of exchange rates fluctuation. If exchange rate makes great fluctuation, the exporters and importers will not have precise information about the revenue generated from exports or import fees on Local money, during the contract time. Generally, followed by the recent global economic crisis, many undesirable economic adjustments have been made in Iran economy. Firstly, Riyal exchange rate has dropped dramatically and gotten more instability than any other time in past decade. The level of stock market indices over the past year have gone down and the banks were afraid of getting breakup due to dealing with foreign credit lines, stock markets and customers. Volatility in exchange rate represents a instability in the base economic structure. A flexible exchange rate is not solely an unstable exchange rate; if such things happen, there is a result of the basic instability in economic conditions (Flood and Rose 2, 1999).

Within a recent decade, economists have found that the floating exchange rates are more variable than fixed rates. But if the volatility of the base economic indices don't change among the systems, the fluctuations of fixed exchange rates should only lead to a temporary increase in the volatility of exchange rates. Perhaps the floating exchange rates are variable due to the higher volatility of the basic economics (Flood and Rose 2, 1999). Since the

exchange rate policy is chosen by the authorities, Unfortunately, there are a few evidence of a systematic relationship between exchange rates and measurable macroeconomic phenomena and absorbing funds or Deposit; and this is at least for those countries with low or medium inflation in high and medium frequencies. A number of researchers have officially shown that there is no variability of the observed macroeconomic variables such as money, output, and consumption in systematic way across exchange rate policy (Flood and Rose 2, 1999).

In any case, one can hardly expect that the (float) era by the macroeconomic outlook is much more unstable than the fixed period. Through the development of financial markets, the activities of banks and financial institutions have been progressed; and certainly, economic development is not possible without considering the role of banking and financial markets. Banks are considered as the main providers of the financial resources of the actual parts of economy (in industry, agriculture and services). The main issue in the banking and monetary system is how to provide the financial resources and to allocate and distribute them in different economic sectors and among economic actors, as well as the routes in which the amount of existing money entered in the economic system and circulated. Due to the function of the banking system in financial resource providing and its best allocation in the economic system, the more effective banking system in providing the financial resources and allocating them in a competitive environment, the less production costs and we can see the improvement in the production and employment and economic growth; Otherwise, the lack of efficiency of banking system in best providing and allocating the financial resources lead to waste of resources and then the economic downturn (Ramadani, 2006).

The most important reason for lacking the Deposit in our country must be rooted in "lack of basic savings" phenomena. Theoretically, lack of savings is a serious obstacle for economic growth. Because, firstly if the population growth increases, saving will be needed in order that the capital ratio to labor maintain or increase. Secondly, savings are the main roots of productivity. Empirical evidence shows that countries with higher savings, have experienced the increased productivity and higher economic growth (King, 2003).

In today's competitive markets, absorbing the financial resources is the main goal of any financial institution. Therefore, in the following future, the banks and financial institutions in Iran have to focus on the factors which result in attracting the resources optimally to access international standards (Gray and Talbot2007)

Hypotheses

1. It seems that the exchange rate fluctuations affect the amount of current deposits.
2. It seems that exchange rate fluctuations affect the loan deposits.
3. It seems that exchange rate fluctuations has an impact on long-term deposits.

Analysis of factors affecting exchange rate volatility

The main reasons of wide fluctuations and the mutations of the exchange rate in informal market could be found in developing the supply and demand in the foreign exchange market. Based on clear economic principles, the roots of exchange rates mutation should be found in increased exchange demand or reduced exchange supply or a combination of both. So far, the exchange mutations in our economy has mainly occurred due to exchange resource constraints and a sharp reduction in the supply of exchange. for example, the latest sharp exchange rate mutation that occurred in 1998and 2009 was the reflection of the sharp decline in oil prices, declining oil revenues and consequently reduce the supply of foreign exchange to the market. Reviewing on the developments in supply and demand for foreign exchange market since 1390, suggests that a set of constraints on the supply of exchange and a sharp increase in exchange demand have provided the recent exchange developments.

Familiarity with key definitions existing in this article

The definitions are as follows:

Bank is a service institute which collect or equip people's savings, allocate the resources and optimal use of resources in direction of general economic policy through monetary and credit instruments as well as facilitate the payment and doing the other banking services within the framework of laws and Regulation (Jamshidi, 2006, 4).

Inflation rate:

Inflation is a condition in which the general level of prices rises continuously over time. What important in defining inflation is the element of time and the continued rise in the general level of prices, it means that the prices should be constantly increasing over time. if prices rise at a certain period and then (this growing process) stop, it is not referred to inflation ; because increasing in the prices would have to be continued (Ghafari, Naeemi Pejho, 119, 2012).

Exchange rate:

The rate of exchanging the currency of one country with currency of other country is considered as exchange rate. It is determined according to the various methods such as fixed, variant, multiple and floating management. The policy of exchange rate determination is to regulate the input and output process of the exchange in national economy, by which the amount of importing and exporting the goods, services and the Deposit between one country and other countries could be determined (2003).

According to that the exchange rate in markets is not found in the official publication monthly, the average monthly exchange rate were calculated and investigated by arithmetic mean method.

Reference exchange rate: reference exchange is the exchange which the central bank represents daily its rate (www.cbi.ir). Banks use this interest rate to converse or (adjust) their exchange accounts at the end of the month and the government uses the exchange rate in its exchange calculations (National Bank site)⁴.

Financial resources:

All funds called deposits, savings and Deposits which deposited by the customers to the banks are considered as financial resources.

Monetary inflation is severe and unusual rising in prices in an economic community. Now, this sharp increase may be due to the expansion of the money volume or any other reasons. Inflation is as a result of a condition in which general level of prices increase significantly and growingly and continuously and often irreversible.

Theory of parity in purchasing power

Another approach in determining the exchange rate in long-run is the theory in which the exchange rate between two countries is the ratio of the general price level in both countries. According to this approach, the exchange rate should be determined so that the price of the same good in two countries is the same (the law of unit price).

This theory has the implicit assumptions including the absence of transport costs, tariffs or other trade restrictions; So that all goods are tradable internationally, and no structural change does occur. Consequently, if the existing exchange rate does not observe the law of unit price with arbitrage goods, the exchange rate reaches its excellence. Due to the extreme assumptions of the theory, another theory emerged as the relative purchasing power parity in which exchange rate changes were proportional with the relative changes in the price level of two countries. So that having the exchange rate in the base year one can determine the current equilibrium exchange rate regarding the changes in the general price level between two countries during the base year to the present. The theory of relative purchasing power parity is as faced with some problems as absolute purchasing power parity theory. For example, all goods and services are not tradable. Goods and services are divided into two categories: tradable and non-tradable. Being tradable means that the goods could be sold in a location away from where produced.

Housing, real estate and services such as hairdressers and taxi are the samples of non-tradable goods. So, exchanging the non-tradable goods is not possible and the law of unit price will not be observed.

Since the general price index includes the price of tradable and non-tradable commodities and services, and the price of non-tradable goods and services will not be equal even by making international trade free in the countries (it can be found in the developed countries more than in developing countries), so the theory of purchasing power parity in the developed countries is estimated less than reality and in developing countries more than reality. The more developments between countries, the higher deviation between estimations (2004).

Study on internal and external background of research

Using the relationship between bank deposits and Deposit rates, Gonenc (2005) and Dittmar demonstrated a direct relationship between macro - micro economic variables and the amount of the deposit. In the researches relating the profitability, Song Rong Lee (1985) concluded that the location of the bank affects the amount of deposits and the profitability of banks. Moreover, Lee (1985) concluded that the increase in bank's branch and financial institutions in the region lead to the increase in the profitability of banks. Soteriou and Zenios (1997) represented a framework for modeling various aspects of functional and strategic benchmarking in the commercial branches of banks in the United States. They have represented the combination of strategic benchmarking with efficiency benchmarking for the first time, in their research.

Dominguez (1998) in his paper, examines the effects of monetary policy and interventions of the United States, Germany and Japan (G3) on the volatility of exchange rates Dollar - Yen during 1994- 1977. Findings suggest that intervention operations generally increase the volatility of exchange rates. This is certainly true in the case of secret interventions. Secret interventions are the interventions which decided by Central bankers without notifying the public. It seems that obvious interventions in the mid-1970s have reduced the volatility of currency exchange rates.

but in other periods and during the overall period 1994 to 1977, the central bank interventions have been linked to instability in exchange rates (Dominguez, 1998).

Jung and Zhang (2006) conducted a study called the long-term profitability and services of banks in Taiwan. They found in their research that banking services are considered as the most important factor in the profitability and interest for the studies banks. At the continue, the bank employees have been considered as the major and most important factor to access the increase in the profitability and the interest (Jung and Zhang, 2006).

Abhiman (2009) evaluated the efficacy of some branches of large national banks in India. They found that the factors such as human resources, employee's education, banking environment, bank location, advertising, government law and regulation and reduction of state intervention in the banking issues are the factors affecting the attraction of people's savings. They believe that the most important and most effective factor of attracting people's capital is human resource (Abhiman 2009).

Sharpe (1997) conducted a study entitled "effect of transaction costs for consumers and its application in bank deposit market". He uses deposit rates data of 222 American banks in the early 1980s in accompanying with data related to the new migrants ratio in every 105 major metropolitan area which calculated in the earlier period and extrapolated to the 1980s. by using the cumulative time series consisted of 5 annual sections (adjust by time effect) Sharpe found according to forecast that migration ratio or household migration in major metropolitan area has positive effective (reinforcing the competitiveness) on deposit rates, if other thing are equal. Since, the deposit rates are paid to the customer deposits (not by customers), this is equal to find the lower price in the areas with the most migration rate (Sharp, 1997).

Hannan (2003) have used the measuring migration index in their researches about the decisions of the United States banks to impose a surcharge for using their devices (ATM) by non-depositors. They report that banks with higher levels in Kochi in local markets are more likely to demand surcharge; and this finding is coordinated with the assumption of additional Cost of ATM. Because they can attract new depositors (and not repel), So it sets in the areas in which the proportion of the more easily attracted population is further (Hannan, 2003).

Broda and Romalis (2003) have examined the impact of exchange rate volatility on the separated trade flows. Research findings indicate that volatility can reduce the trade of differentiated products in comparison to the trade of public goods; although this is not significant effect, but the overall elimination of real exchange rate volatility can increase the manufacturers trade and total trade less than 5% and less than 3% respectively. They suggested in their conclusions that the developing countries can experience the significant increases in their trades as a result of the fact that they are more susceptible for volatility of foreign exchange rate (Broda and Romalis, 2003).

Kim (2003) conducted the effect of rejection costs on the banking industry in Norway from 1988 to 1996. Empirical estimates of the costs of turning away are obtained from a multi-period model of consumers transition probabilities. This model can also indirectly estimate the effect of being established as the estimated effect of market share $t-1$ on the firm's current market share (keeping the customer due to this fact that the rejection to the competitors is expensive).

Feizi (2011) conducted a study entitled 'the investigation and identification of the factors affecting the mobilization of resources (attracting the deposits at the National Bank, Iran, Kermanshah Province). Purpose of this study is to investigate and identify the factors affecting the deposit attraction by the view of employees and customers of National Bank in Kermansha. Statistical community is the employees and customers of Kermanshah National Bank. Sample size includes 154 customers and 64 employees which collected via a simple sampling method during 88-89. In this study, the effects of six independent variables (modern banking services, automation, increased advertising, the number of branches, deposit interest and credit payment facilities) on the dependent variable of deposits attraction have been studied and analyzed. for evaluating hypotheses, the binomial non-parametric tests, one sign sample non-parametric test, K-S test were used. These results indicate that except the first hypothesis variable (modern banking services), other hypothesis variables affect the deposits attraction (Feizi, 2011).

Makroni (2011) has studied on the factors affecting liquidity management and funds flow in Melli Bank in Iran (case study : Kordestan National Bank, Iran). In this study, based upon the quantitative data collected from the factors affecting liquidity management, and regarding the main and secondary hypothesis existing in the research and application of software SPSS and examining the regression and correlation between variables, the factors and the level of its affecting were determined due to the profitability and the liquidity gap and the cost of financing. So, the results indicate that all the variables of study have had normal distribution and the independent variables of the main hypothesis, ie the rate of interest paid and received, had a significant effect on the dependent variables such as profitability, liquidity gap and financing costs. And the rates of interest paid have more effect on the dependent variables than interest received. Moreover, the secondary variables including deposit quantity, deposits term, deposit type, amount and term of loans have significant effect on liquidity management and secondary variables such as

loan type and inflation rate have significant effect on the profitability and liquidity gap, but don't have significant effect on the cost of financing (Makroni, 2011).

Since in this paper, the documents, records, reports and financial statements existing in National Bank of Bushehr province have been used to measure the research variables, so all top branches of the National Bank of this province have been considered as a location territory. This research is conducted in early 2009 till the late 2012 and the integrated financial statements have been continuously represented at this time. Given the size of population, a number of branches were selected as the research samples. Method used to select the final sample in this study was the selected sampling method. After examining the branches of banks in demographic population, those branches which have no suitable characteristics were removed from the study in order to select a suitable sample which represents the characteristics of the target population, and then the sample selected (top branches of province).

After statistical analysis, data were obtained through software SPSS.

Exchange rate fluctuations have positive significant on the quantity of current deposits which are examined in two ways:

- 1) Reference exchange rate volatility has a positive significant effect on current deposits.
- 2) Market exchange rate volatility has a positive significant effect on current deposits.

Firstly, the results of effect test are represented for any estimation and then we estimate:

Reference exchange rate

The result of effect test: using the fixed effects and random effect of Reference exchange rate and current deposit

Results	statistics	test
Using the fixed effects	261/28	Fixed effects
Error (means the differences between financial circle of banks were great)		Random effects

Market exchange rate

The result of effect test: using the fixed effects of market exchange rate and current deposit

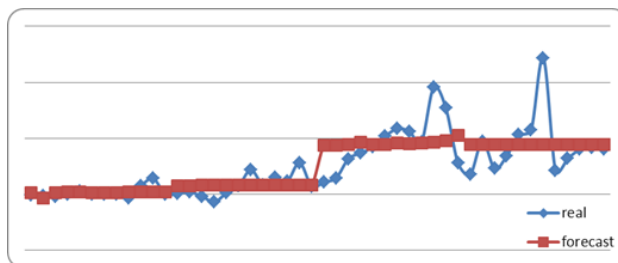
Results	statistic	test
Using the fixed effects	248/72	Fixed effects
Error (means the differences between financial circle of banks were great)		Random effects

Estimating the effect of exchange rate fluctuation on current deposit

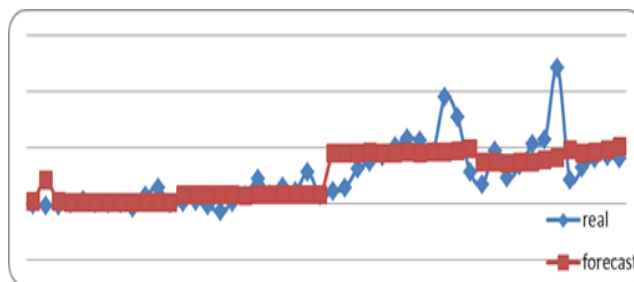
Results	Significant level	Standard deviation	T-statistics	Coefficient	First year	The name of current deposit variable
Significant	0.000	1/06*e ⁻¹³	5/62*e ¹²	0/59	First year	
Significant	0.000	1/01*e ⁻¹³	1/16*e ¹³	1/17	Second year	
Significant	0.000	9/56*e ⁻¹⁴	4/82*e ¹³	4/61	Third year	The rate of reference exchange and current deposit
Significant	0.000	8/58*e ⁻¹⁴	5/62*e ¹³	3/49	Fourth year	
Significant	0.000	4/77*e ⁻¹⁴	1/16*e ¹³	-2/23	First year	
Significant	0.000	4/56*e ⁻¹⁴	4/82*e ¹³	-1/51	Second year	The rate of market exchange and current deposit
Significant	0.000	4/39*e ⁻¹⁴	4/7*e ¹³	2/06	Third year	
Significant	0.000	1/72*e ⁻¹³	4/27*e ¹³	7/33	Fourth year	
Significant	0.000	4104/35	8/61	35363/32		Intercept of total reference exchange rate
Significant	0.000	0/38	5/72	2/20		Current deposit and total reference exchange rate
Significant	0.000	1789/05	36/92	66065/57		Intercept of total market exchange rate
Significant	0.000	0/21	-4/02	-0/87		Current deposit and total market exchange rate

It should be noted that in the current deposit and total reference exchange rate, F-statistics regression for significance of all regression have been equal to 254/38 and the regression is significant.

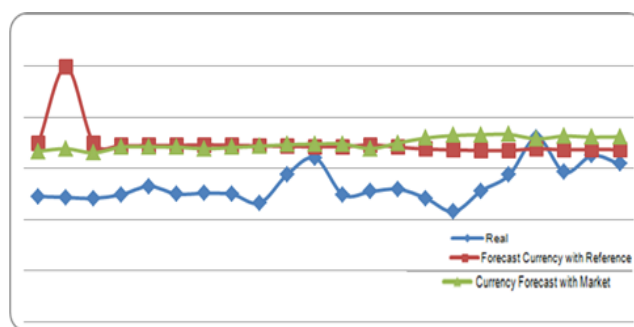
In the current deposit and total market exchange rate, F-statistics regression for significance of all regression had been equal to 241/20 and the regression is significant.



Annual desperation for relationship between current deposit and reference exchange



Annual desperation for relationship between current deposit and market exchange



Forecasting the relationship between current deposit and market exchange and total reference exchange.

RESULTS AND DISCUSSION

According to the explanation and tables , first hypothesis is examined in the following table.

The result of first hypothesis

The exchange rate fluctuation has positive significant effect on current deposits verified	First hypothesis
The significant relation is verified but it is negative.	Reference exchange rate
	Market exchange rate

The result of second hypothesis : exchange rate fluctuation has positive significant effect on the quantity of loan deposits.

- 1) Reference exchange rate fluctuation has positive significant effect on the quantity of loan deposits.
- 2) Market exchange rate fluctuation has positive significant effect on the quantity of loan deposits.

Due to the unsteady. loan deposits , subtracting in the first-order is used.

The effect Test of reference exchange rate

Results	statistics	test
Non-use of effects	0/39	Fixed effects

The effect test of market exchange rate

The result of effect test of market exchange rate on the quantity of loan deposit: non-use of effects

Results	statistics	test
Non-use of effects	0/39	Fixed effects

As data show , since the value of T is less than 2, so the effect test for this hypothesis represents the non-use of effects.

Estimating the effect of exchange rate fluctuation on loan deposits:

results	Significant level	Standard deviation	T-statistics	coefficient	First year	Variable: loan deposit
significant	0.000	2/15*e ⁻¹⁴	-1/82*e ¹²	-0/03	First year	Reference exchange rate and loan deposit
significant	0.000	2/06*e ⁻¹⁴	8/41*e ¹²	0/17	Second year	
significant	0.000	1/96*e ⁻¹⁴	3/63*e ¹³	0/71	Third year	
significant	0.000	1/71*e ⁻¹⁴	3/65*e ¹²	0/62	Fourth year	
significant	0.000	1/35*e ⁻¹⁴	-1/97*e ¹³	-0/26	First year	Market exchange rate and loan deposit
significant	0.000	1/28*e ⁻¹⁴	-3/32*e ¹²	-0/04	Second year	
significant	0.000	1/22*e ⁻¹⁴	4/15*e ¹³	0/50	Third year	
significant	0.000	4/86*e ⁻¹⁴	4/25*e ¹³	2/06	Fourth year	
significant	0.000	100/96	-5/91	-596/73		Intercept of total Reference exchange rate
significant	0.000	0/011	7/12	0/08		Loan deposit and total reference exchange rate
significant	0.000	44/92	8/74	392/69		Intercept of total market exchange rate
No significance	0.000	0/005	-0/30	-0/001		Loan deposit and total market exchange rate

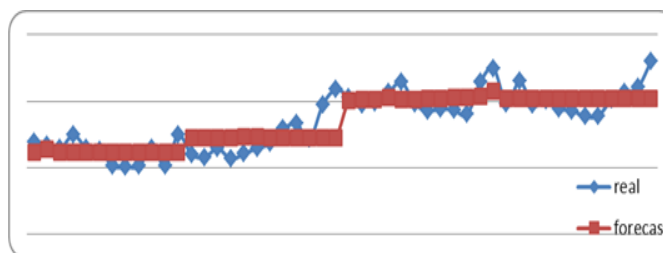
All regression of loan deposit and total reference exchange rate is significant and F-statistics or all regression is equal to 7/41.

All regression of loan deposit and total market exchange rate is not significant and F-statistics for all regression is equal to 0/37 which represent non-significant of regression.

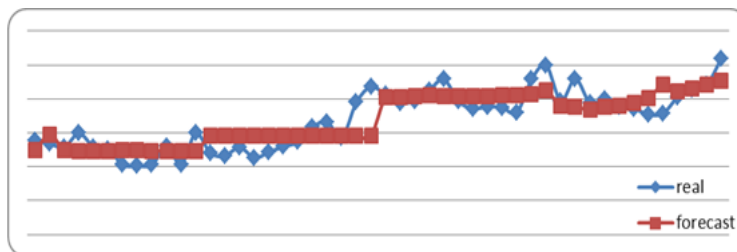
According to the explanation and tables, the final examination of second hypothesis is represented in the following table. It is, reference exchange rate fluctuation will have positive significant effect on the amount of loan deposits and market exchange rate fluctuation don't have positive significant effect on the amount of loan deposits.

The result of second hypothesis

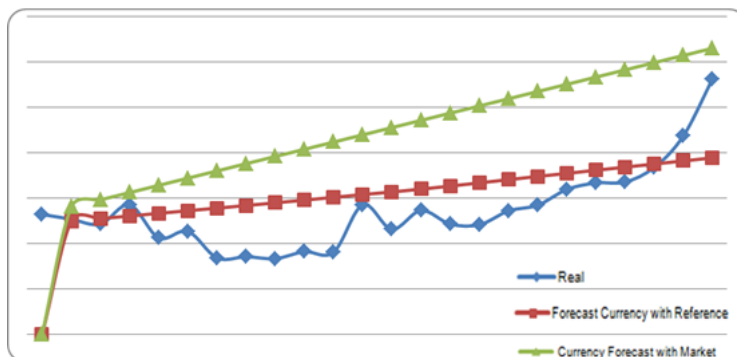
The exchange rate fluctuation has positive significant effect on the quantity of loan deposits	Second hypothesis
Verified	Reference exchange rate
Decline	Market exchange rate



Annual (year by year) desperation for relationship between current deposit and reference exchange



The graph of annual desperation for relationship between loan deposit and market exchange



Forecasting the relationship between loan deposit and market exchange and total reference exchange
 The result of third hypothesis: exchange rate fluctuation has positive significant effect on the quantity of long-term deposits.

- 1) Reference exchange rate fluctuation has positive significant effect on the quantity of long-term deposits.
 - 2) Market exchange rate fluctuation has positive significant effect on the quantity of long-term deposits.
- Due to the unsteady long-term deposits , subtracting in the first-order is used which represented in tables below.

Reference exchange rate

The result of effect test of reference exchange rate on the quantity of long-term deposits : using fixed effects

Results	statistic	test
Using the fixed effects	2/16	Fixed effects
Error (means the differences between financial circle of branches of banks were great)		Random effects

market exchange rate

The result of effect test of market exchange rate on the quantity of long-term deposits : using fixed effects

Results	statistic	test
Using the fixed effects	2/17	Fixed effects
Error (means the differences between financial circle of branches of banks were great)		Random effects

Estimating the fluctuation effect of reference and market exchange rate on long-term deposits

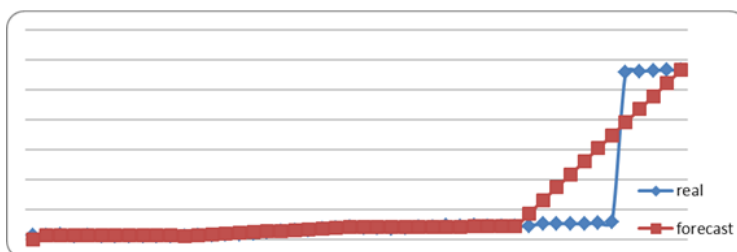
results	Significant level	Standard deviation	T-statistics	coefficient	First year	Variable : long-term deposit
significant	0.000	3/86*e ⁻¹⁵	-6/29*e ¹²	-0/02	First year	Reference exchange rate and long-term deposit
significant	0.000	3/57*e ⁻¹⁵	7/66*e ¹²	0/02	Second year	
significant	0.000	3/44*e ⁻¹⁵	-3/69*e ¹²	-0/01	Third year	
significant	0.000	3/08*e ⁻¹⁵	2/25*e ¹⁴	0/69	Fourth year	
significant	0.000	8/04*e ⁻¹⁵	1/81*e ¹⁴	1/45	First year	market exchange rate and long-term deposit
significant	0.000	6/78*e ⁻¹⁵	2/12*e ¹⁴	1/43	Second year	
significant	0.000	6/5*e ⁻¹⁵	2/03*e ¹⁴	1/31	Third year	

significant	0.000	2/67*e ⁻¹⁵	3/35*e ¹⁴	9/43	Fourth year	
No significance	0.000	157/56	-1/49	-235/05		Intercept of total Reference exchange rate
significant	0.000	0/01	6/05	0/08		Total Reference exchange rate and long-term deposit
significant	0.000	111/66	9/16	1023/84		Intercept of total market exchange rate
significant	0.000	0/01	-2/73	-0/03		Total market exchange rate and long-term deposit

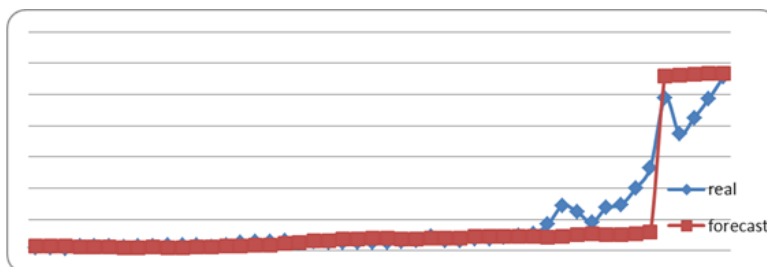
Total regression of the fluctuation of reference exchange rate and long-term deposits had been significant and F-statistics equal to 2/37. Total regression of long-term deposits and market exchange rate and F-statistics were equal to 2/61 for total; regression. According these tables and explanations, the examination of third hypothesis is as follows:

The results of third hypothesis

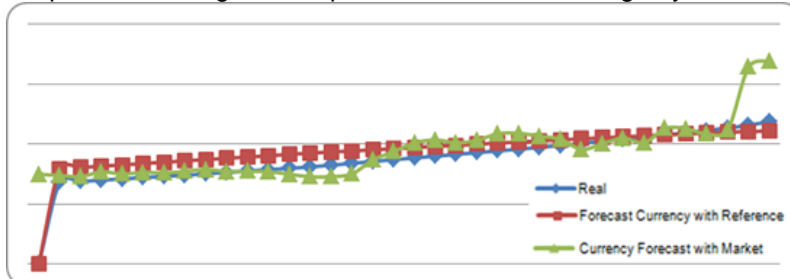
The exchange rate fluctuation has positive significant effect on the quantity of long-term deposits	Third hypothesis
Verified	Reference exchange rate
The significant relation is verified but it is negative.	Market exchange rate



The graph of the relationship between long-term deposit and reference exchange by annual separation



The graph of the relationship between long-term deposit and market exchange by annual separation



Forecasting the exchange rate volatility on long-term deposits

REFERENCES

- Aghazadeh H and Zolfaghari M. 2008. Investigation of factors affecting the success of the bank branches in mobilizing financial resources (case study: Semnan Commerce Bank). Second International Conference on Financial Services Marketing
- Ahanj H. 2011. " recognizing the organizational factors affecting the attraction of long-term Deposit deposits and providing appropriate solutions (A Case Study : Bank Pasargad, Qom): M.Sc. Thesis Tehran University . campus of Qom . Management faculty. Department of Business Management .
- Behkish MM. 2002. What is economy. Tehran : Nei publication
- Bahmand M and Bahmani M. 1995. home banking ,Tehran, top Banking Institute
- Tajali A, Aziznejad S and Mirshamsy A. 2010 , the effects of reduction in bank interest rates on inflation, employment and Deposits, " Tehran : Research center of parliament
- Tashkini A. 2003. is the inflation monetary phenomenon (case Iran), M.Sc. Thesis , Faculty of Economics ,Tehran University