

THE IMPACT OF EXCHANGE RATE FLUCTUATIONS AND INFLATION ON THE AMOUNT OF DEPOSIT OF CUSTOMERS (CASE STUDY: BANK SADERAT, HORMOZGAN PROVINCE)

Mehdi Bagheri¹, Hasan Gheisarinejad^{2*}

¹Department of Accounting and Management, Faculty of Humanities, BandarAbbas Branch, Islamic Azad University, Bandar Abbas, IRAN

²Department of Management, Qeshm International Branch, Islamic Azad University, Qeshm, IRAN

ABSTRACT

Aims: The aim of this study is to evaluate the effects of exchange rate fluctuations and inflation on the amount of deposits of customers through a case study on Bank Saderat branches, Hormozgan province. **Materials and methods:** The present study is research- functional and in terms of purpose and from the perspective of data collection, is a sort of research - descriptive survey. The study population consists of all the branches of Bank Saderat in Hormozgan province. The sample size using Cochran sampling formula includes 20 branches. Also, to collect data related to the study variables, the audited financial statements contained in the data bases of Bank Saderat, Hormozgan province have been used. Smirnov normalization test-Kolmogorov to normalize and regression test and Pearson's correlation coefficient and maintain the predictive relationship between variables and variance analysis to evaluate the impact of variables on each other, were used. **Results:** The results showed that there is not a significant relationship between the long-term exchange rate fluctuations and the depository in bank branches in the province, But there is a significant correlation between the short-term deposit rates and exchange rate volatility and inflation rates and long-term investment and short-term deposits.

Published on: 25th– Sept-2016

KEY WORDS

volatility, exchange rates, inflation rate, long-term deposits and short-term deposits.

*Corresponding author: Email: gheysar59@gmail.com Tel.: +98 43526433; Fax: +98 43526433

INTRODUCTION

Given the importance of economic growth and exchange rate fluctuations, it is essential to examine the reasons and factors affecting it. Economic growth literature shows that various factors are effective on these variables of which the most important ones are the inflation and exchange rates fluctuations.

On the other hand, inflation which is one of the main problems, especially in developing countries, have mainly the adverse effects on the growth and economic development. Due to the devastating effects of inflation, its control as one of the objectives of macro-economic policies has always been considered by the economists. Within a decade, economists have found that floating exchange rates are more variable than fixed rates. But if the basic economic indicators of instability in the system do not change, constant currency exchange rates fluctuations will lead only to a temporary increase in the volatility of currency exchange rates.

Perhaps because of higher instability of floating exchange rates, the basic economic variables vary [1]. On the other hand financial and banking institutions will succeed when implementing programs by careful planning to attract the optimal allocation for processing on their behalf. Absorption of resources is considered as key and strategic objectives and play an important role in providing banking services and is an important indicator in assessing the success rates of banks. After all, the currency exchange rate policy will be selected by the authorities. Unfortunately, there are very little evidence of a systematic relationship between exchange rates and measurable macroeconomic phenomena in absorbing deposits and this is the minimum average for countries with low inflation and high and medium frequencies.

RESEARCH LITERATURE

Exchange rate fluctuations

Today, banks are as the most important elements play an important role in our economic monetary market [2]. With the development of financial markets, the activity of banks and financial institutions has become more widespread and no doubt economic development is not possible without considering the role of banking and money markets. Banks are considered as the main providers of financing real sector of the economy (industry, agriculture and services). Inefficiency of the banking system in mobilizing and allocating financial resources will lead to waste of resources and fueling the economic recession [3].

The main economic problems arises from exchange rate changes. Since the collapse of Bretton Woods systems in March 1973, there is a high degree of volatility in exchange rates. One problem that has been considered by the participants in financial markets, economists experts on trade, the popular press and policy-makers is the impact of this volatility on international trade. Exchange rate, a key variable in economic policy-making has been considered. So, a group of experts, particularly in developing countries, speak of this variable as a nominal anchor. Exchange rate policy, is the regulator of the inflow and outflow of foreign currencies in the national economy and thereby the entry and exit of goods, services and capital is defined in a country with other countries [4].

The main causes of wide fluctuations and exchange rate jumps in the unofficial market should be probed in developments of supply and demand in the foreign exchange market. On the economic clear basis, the root of leap should be probed in demand for currency exchange rates or reducing the supply of currency or a combination of both. When the exchange rate varies, the assets, foreign debts, income and many other factors will change [5]. Thus, changes in exchange rates can have a significant impact in attracting banks, resources and deposits rates of the customers with respect to the exchange rates [6].

Volatility of exchange rates is a sign of instability in the basic economic structure. A flexible exchange rate should not be an unstable currency exchange one. If this is the case, there is mainly an instability base on economic conditions [1]. The volatility of currency exchange rates, is a source of risk of currency exchange rate and has a special effect on the volume of international trade and consequently on the balance of payments.

Volatility of exchange-rate, increases the uncertainty of profits of foreign currency contracts because this risk will lead the risk factors to risk their activities more towards safer domestic markets.

On the other hand, higher volatility of currency exchange rates and therefore its higher risk represents opportunities for gaining profits and can increase business [7].

Inflation rate

In the general expression, inflation is defined as a constant general rise in prices. Economists have offered various definitions of inflation. Inflation is a situation where the general price level constantly increases over time. Importantly, the definition of inflation, the element of time and continuation of increase of the general level of prices, which means that the prices should increase steadily over time. If prices are increased within a certain period then this uptrend is stopped would not be applied to the process of inflation, because rising in prices should be continued [8]. According to the definitions listed in inflation it can be said that the main feature of inflation is the continuation of increase in prices.

The sudden increase in prices and the increase in the price of a particular good is not treated as inflation. To measure the inflation, an index, so called the volatility in prices is used in which the fluctuations of goods and services in a given year compared to the base year is evaluated.

The prices of goods and services used in the consumer prices index of measurement is the consumer's prices (CPI).

In Iran consumer's prices of goods and services is called an index which is calculated and published by the Central Bank every month. Because of the diversity of types of inflation, It may not have the common origin. In addition to the theory of demand inflation and cost inflation causing inflation, it is the government spending or aggregate supply disruptions. There is a third theory about inflation caused by the monetarist theory. According to this view there is a direct relationship between money supply and inflation of the important effects on inflation the effects of inflation on savings can be traced.

Desire to make savings will have a negative effect on the society and people try to convert their liquidity and saving into a safer and more stable wealth. Inflation could also increase investment and raise the level of production.

Moreover, inflation also affects the depository of the clients. In recent years, the growth of liquidity has been relatively accelerated high. Much part of liquidity includes private sector deposits with banks. By definition, liquidity is the sum of money and quasi-money, including the amount of money in the hands of individuals and the private sector saving accounts and their timed funds with the banks. Therefore, regardless of the currency in the hands of the people and by taking deposits as the main liquidity, we can say that the money supply growth and the subsequent increase in inflation, banks deposits will also increase [2].

Depository

In general any system in accessing the macroeconomic goals of financial policy can play a better role with the assistance of the banking networks and banks will be able to perform their role properly when they enjoy high financial sources.

In addition to these, interest rates of banks deposits should be paid special attention, so that in particular economic conditions of Iran, any change in interest rate could become an important tool in increasing a motivation to investors. Bank deposits is one of the useful tools for providing peace and comfort, as well as a solution to meet the needs of the society, especially in times of unpredictable future [9].

Today, bank deposits, is one of the most important economic and social tools and is avoidable in economic and services sectors and has an important and effective role in economic growth and development.

Bank deposits due to meet the financial demands of the people from the revenues has a significant position and are important for mobilizing the resources, finance and planning opportunities particularly for the banking system. Financial institutions and banks will be successful when they implement their exact programs to attract the optimal allocation and without proper planning it may not be possible unless they have the right information about the factors affecting the growth of deposits.

One of the main activities of banks, is the financial resource mobilization. In the banking industry there are many factors affecting the financial resources [10]. Investments in banks is one of the major part of savings of people and constitute the main source of economic investments [11]. Reducing interest rates of banks deposits, regardless of macroeconomic indicators, including inflation, has negative consequences on banks.

In this regard, if the interest rate falls, the owners of long-term deposits who have experienced a decrease in the interest, they will demand their deposits and use them in the parallel markets such as stock markets, real estates, gold and etc.) or they will utilize their resources to obtain higher profits in unorganized monetary markets and other investment opportunities.

The result of such trend, is the formation of bubble stock market, real estate, gold, etc., and eventually causing inflation pressures. It should be noted that the policy of bank increased interest rates with the control of inflation and its decrease can neutralize the negative effects of fluctuations in parallel markets, and change the combination of bank deposits in favor of long-term deposits providing the banks with long term facilities [11].

Research Hypotheses

- 1- It seems that exchange rate fluctuations affect the long-term deposits of customers in Bank Saderat branches in Hormozgan province.
- 2- It appears that fluctuations in exchange rates affect short-term deposits of customers in Bank Saderat branches of Hormozgan province.
- 3- It looks that volatility of inflation rates affect the long-term of customers, deposits in Bank Saderat branches in Hormozgan province
- 4- It seems that volatility of inflation rates affect the short-term customer deposits in the bank branches in the province.

MATERIALS AND METHODS

This research is an applied research because the results will be analyzed by the organization. In terms of data collection, according to the study which intends to evaluate the effect of exchange rate fluctuations and inflation in the bank deposits of customers in Hormozgan province, is a survey, descriptive and correlational research. In this study, in order to collect the data, library studies and field surveys methods have been used. The data collection tools in this research includes library studies, and the documents surveys.

Also, to collect the data on the variables, audited financial statements have been extracted from Bank Saderat, Hormozgan databases. The study population is consisted of 85 branches of Hormozgan province. The statistical sample based on the limited population through Cochran's formula was calculated. This number included 20 branches of the province. To analyze the collected data and approval or disapproval of the hypotheses, variate and multiple regression methods were used. Smirnov – Kolmogorov test for significant regression model was used for testing. The statistical SPSS software, version 21, has been used in this study.

Data analysis

Checking the normality of the data using the Kolmogorov - Smirnov test- Before any test, that is performed by normality assumption, a normality test shall be carried out. In case of normal distribution of collected data to test parametric and non-parametric hypotheses should be used in case of abnormality.

Table: 1.Data normalization using the Kolmogorov-Smirnov test

		Exchange rate fluctuations	Inflation rates fluctuations	Short term deposit	Long term deposit
No.		20	20	20	20
ParametersNormal a,b	Mean	3.289	3.247	6.847	3.258
	Deviation standard	2.193	2.231	3.841	2.0147
	Absolute	0.358	0.437	0.422	0.411
	Positive	0.354	0.357	0.409	0.363
	Negative	-0.419	-0.437	-0.422	-0.411
Kolmogorov-Smirnov		5.369	7.148	7.892	6.841
Significant level		0.116	0.121	0.212	0.142

Considering the results of the above [Table-1], since the significant results level for all components is greater than 0.05, so the frequency distribution is the normal one.

Hypotheses Tests

The results of the research study are as follows

The first hypothesis

$\rho = 0$ exchange rate fluctuations do not affect long-term customers deposits in branches of Bank Saderat of Hormozgan province.

$\rho \neq 0$ exchange rate fluctuations affect long-term customers deposits in branches of Bank Saderat in the province.

The following [Table -2] shows the results of analysis of variance to verify that there is a linear relationship (significant) between independent variables and the dependent variable.

Table 2: Table ANOVA Hypothesis 1

model		Total square	Degrees of freedom	Mean Square	F	Significant level.
1	regression	1.659	1	1.659	0.740	0.401
	The remaining	4.035	19	2.242		
	Total	4.201	20			

As shown in [Table-3], analysis of variance regression (ANOVA) a significance level of the model (sig) equals to 0.401. Since this amount is more than 0.05, the above null hypothesis (independent variables coefficients equal to zero) is approved at the 95% confidence level which means that there is no linear relationship between independent variables and the dependent variable, .

www.iioab.org THE IIOAB JOURNAL www.iioab.webs.com

Table: 3. Regression coefficients H1

Model	Non Standardized coefficients		Standardized coefficients		Significant level	
	B	Standard deviation	Beta	t		
1	Exchange rate fluctuations	1.96	125		1.573	0.133
	The long-term deposit	0.284	0.330	0.199	0.860	0.401

As shown in table of model coefficients:

The significance level (sig) variable size is more than 0.05 and it is meant that the above null hypothesis (that the coefficient of this variable is equal to zero) was approved, and the impact of exchange rate fluctuations on the long-term deposits is not significant.

The second hypothesis

H1 : The fluctuations in exchange rates affect short-term deposits of customers in bank branches in the province.

H0 : The fluctuations in exchange rates affect short-term deposits of customers of the bank branches in the province.

Table: 4. Analysis of Variance Hypothesis 2

Model		Total of squares	Degrees of freedom	Square mean	F	Significant level.
1	Regression	1.6091	1	1.609	0.717	0.008
	Remaining	4.041	19	2.244		
	Total	4.213	20			

As shown in [Table-4] of variance regression analysis (ANOVA) a significance level (sig) of the model equal to 0.008 can be observed. Since this amount is less than 0.05, the above null hypothesis (independent variables coefficients equal to zero) is rejected at the 95% of confidence level which means that there is a linear relationship (i.e., model there is significant) between independent variables and the dependent variable.

Table: 5. Regression coefficients H2

Significant level	Model	T		Standardized Coefficients Beta	Non standardized coefficients	Model
		B	Standard Deviation			
1	Exchange rates fluctuations	201	122		1.636	0.119
	Amount of short term deposit	0.675	0.798	0.169	0.847	0.408

As shown in table of model coefficients :

The significance level of variable size (sig) is less 0.05 is the and this means that our null hypothesis (that the coefficient of this variable is equal to zero) at the 99% was rejected and the effect of exchange rate fluctuations on the amount of short-term deposits is significant.

Third Hypothesis

H1: The fluctuations in inflation rates affect long-term customers, deposits in branches of Bank Saderat in the province.

H0: The fluctuations in inflation rates do not affect long-term customers, deposits in branches of Bank Saderat in the province.

Table:6. Analysis of Variance Hypothesis 3

Model		Square total	Degrees of freedom	Square Mean	F	Significant level
1	Regression	3.269	1	3.269	0.520	0.000
	Remaining	1.132	19	6.288		
	Total	1.165	20			

As shown in table of regression variance analysis (ANOVA) the significance level (sig) of the model is equal to 0.000. Since this amount is less than 0.05, the above null hypothesis (independent variables coefficients equal to zero) is rejected at the 95% confidence level which means that there is a linear relationship (ie, model there is significant) and regression model with the above hypothesis can be tested and evaluated.

Table: 7. Regression coefficients H3

Model		Non Standardized coefficients		Standardized coefficients	T	Significant level
		B	Standard Deviation	Beta		
1	Inflation rates fluctuations	195	662		2.954	0.008
	Amount of long term deposits	0.013	0.017	0.168	0.721	0.480

As shown in the [Table-7] of model coefficients: The significance level (sig) of the variable size is smaller than 0.05, meaning that the above null hypothesis (that the coefficient of this variable is equal to zero) was rejected at the 99% confidence level and volatility of inflation rates affect long term deposits.

The fourth hypothesis

- H1: The fluctuations in inflation rates affect short-term deposits of customers of Bank Saderat branches in the province.
- H0: The fluctuations in inflation rates do not affect short-term deposits of customers of Bank Saderat branches in the province.

Table: 8. Analysis of Variance Hypothesis 4

Model	Total Squares	df	Square mean	F	Significant Level	
1	regression	1.871	1	1.871	0.294	0.594
	The remaining	1.141	19	6.366		
	Total	1.165	20			

As shown in table of variance regression analysis (ANOVA) the significance level (sig) of the model is equal to 0.594. Since this amount is larger than 0.05, the above null hypothesis (independent variables coefficients equal to zero) is approved at the 95% confidence level which means that there is a linear relationship (ie, model there is significant) and regression model with the above hypothesis can be tested and evaluated.

Table: 9. Regression coefficients P4

Model		Non Standardized Coefficients		Standardized Coefficients	t	Significant level
		B	Standard Deviation	Beta		
1	Inflation rates fluctuations	188.240	654.721		2.875	0.010
	Short term deposits	0.023	0.043	0.127	0.542	0.594

As shown in table of the model coefficients: The significance level (sig) of the variable size is larger than 0.05, meaning that the above null hypothesis (that the coefficient of this variable is equal to zero) was rejected at the 99% of confidence level and volatility of inflation rates on short-term deposits is significant.

RESULTS AND DISCLOSURE

The research hypothesis, with regression, Pearson correlation coefficient test, F, Smirnov - Kolmogorov test, T statistics were analyzed. According to the results of applied research, the first hypothesis was rejected and the researcher concluded that exchange rate fluctuations could not affect the long-term deposits of the customers. By studying this hypothesis it becomes clear that there is a consistency in the results of research and theories Rasooli and Azad, 2013, Brukman, Añelo, 2010, Aali and Ahmadi, 2011, Ali, 2011, Matoofi and co-workers, 2009, Khaksari, 2006, Rahatan, 2012 and Satyo, 2008.

In the second hypothesis, the test results proved its significance and positivity of Statistics, T, and the researchers concluded that exchange rate fluctuations will affect the amount of short-term deposits of the customers. By studying this hypothesis it becomes clear that the results of research and theories Pourheydari et al., 2009, Kim, 2008, Jahankhani and Ghorbani, 2005, Yung, 2006, Khadem and Ahmedi, 2008, Khani, 2012, Pourheydari et al., 2009, Baty and Weber, 2007, Ramalyngvoda et al, 2012, matoofi et al., 2009, Ahanj, 2011, there is a consistency [11,12,13].

www.iioab.org THE IIOAB JOURNAL www.iioab.webs.com

In the third hypothesis, the test results proved its significance and positivity of Statistics T , and the researchers concluded that exchange rate fluctuations will affect the amount of short-term deposits of the customers. By studying this hypothesis it becomes clear that the results of research and theories Ghaemi and Vatanparast, 2005, Rasooli 2013, Stein, 2003, Binysh and Vargas, 2002, unik, 2006, Kyle and Steve, 2012, Hatan, 2012, (Ahmad Pur and Ghahramani, 2012, RAHIMIAN et al., 2012, Reza Zadeh, Azad, 2008, Hashi, 2008, Lintner, 1965, Khani, 2012, Vakili Fard and Rostami, 2010, Tehrani and Noorbakhsh, 2006, there is a consistency.

By studying this hypothesis it becomes clear that the results of research and theories High, 2011, Binysh and Vargas, 2002, Khadem, 2008, Ghaemi and Vatanparast, 2005, Mehrani et al 2010, Diamond, 1991, Miller, 1977 and 1991, Hatan, 2012, (Ahmad Pour and Ahmedi, 2008), (Pourheydari et al., 2009), (Khaksari, 2006), (Kashanipoor and Momeni, 2011 and Ahmad Pur and Ghahramani, 2012 there is a consistency [11].

CONFLICT OF INTEREST

Authors declare no conflict of interest

ACKNOWLEDGEMENTS

None

FINANCIAL DISCLOSURE

None

REFERENCES

- [1] Robert P Rose, Andrew K. [1999] Understanding Exchange Rate Volatility without the Contrivance of Macroeconomics. Revised Draft: 6 January, 1999 current PDF version of this paper and the STATA 5.0 data set used to generate the empirics are available at <http://haas.berkeley.edu/~arose>
- [2] Karimkhani, Abbas Ali, Forati, Mahtab. [2012] The effect of macroeconomic variables on the sources and deposits of banks' Center of research and risk control of Bank Sepah.
- [3] Ramzani A. [2006] Factors affecting resource mobilization of Golestan province, Sepah Bank. MA thesis, Faculty of Humanities and Social Science, University of Mazandaran.
- [4] Farji Y. [2003] Learning about the tools of monetary and financial institutions. Publisher: Institute of Iranian banker.
- [5] Talebi Gh. [1995] a research on the problems of Pricing Methods of shares of companies subjected to privatization and the proposal of appropriate pricing method, Tehran University; doctoral dissertation.
- [6] Ho C and R McCauley. [2003] Living with flexible exchange rates: issues and recent experiences in inflation targeting emerging market economies", BIS Working Papers, no 130
- [7] Egert B Zumaquero, Amalia M. [2005] Exchange Rate Regimes, Foreign exchange volatility and export performance in central and eastern Europe. ceec.oenb.at _ Focus 1/05.
- [8] Ghfary F, Naimi pajouh H. [2012] the effects of internal and external shocks on inflation in Iran, *J and economic policies*, the twentieth year, 62:117-142.
- [9] Greenbaum SI. and AV Thakor. [2007] "Contemporary Financial Intermediation" Dryden: Florida.
- [10] Aghazadh H, Zulfaghari M. [2008] investigation of the factors influencing the success of bank branches in mobilizing financial resources (bank case study of Semnan trade bank) " The second International Conference on Financial Services Marketing.
- [11] KhadmB. [2008] "Measurement of the factors affecting the volume of bank Meli deposits during the period 1987-1989 Iran," Tehran University MA thesis. Faculty of economics department of economic sciences. economic development and planning.
- [12] Yong-Ch. L, Jung-HH. [2006] Services and the long-term profitability in Taiwan's banks", *Global Finance Journal*, Volume 17(2):177-191.
- [13] Ahanj H. [2011] identification of factors affecting the absorption of timed investment deposits and providing appropriate solutions (case study Pasargad Bank of Qom," master's thesis, Tehran University. Pardis, Qom college of management. department of business Administration.

article is published as it is provided by author and approved by reviewer(s). Plagiarisms and references are not checked by IIOABJ.