

## Investigation of return on investment for Iranian banking system

Ghabezi Roohallahe 1, Kessmati Mohammad Reza 2

1. Scientific Board Member, Research Institute of Petroleum Industry, Iran.
2. Scientific Board Member, Research Institute of Petroleum Industry, Iran.  
[ghabezy@yahoo.com](mailto:ghabezy@yahoo.com)

**Abstract:** This paper investigates return on investment for Iranian banking system. Banking is a major part of financial sector in an economy. For evaluating economic performance of institutes, we must use of competitive measurements for evaluating financial and economic impact of these decisions and then judge their performance. A basic goal of research is to assess investments rate for Iranian banking system and compare it with Industry average rate and rate of investment for private and governmental companies in Iranian economies. In this research three hypothesis were identified and tested. As the result shows, rate of return obtained from Iranian banking system less than private companies. On the other hand, there is no significant difference between the rate of return obtained from Iranian banking system and Industry average rate of return and governmental company's rate of return. [Ghabezi Roohallahe, Kessmati Mohammad Reza. **Investigation of return on investment for Iranian banking system.** *J Am Sci* 2013;9(5):36-42]. (ISSN: 1545-1003). <http://www.americanscience.org> 5

**Key words:** investment, rate of return, banking system, monetary system economy, financial sector.

### Introduction:

Financial and monetary system has a key role in economy. In an economy efficiency and stability of the financial and monetary system can support and boost the real economy sector (Namazi, 2010). Shortage of productive and adequate investment is one of the big barriers to economic development. Increasing competency of financial market and improving the position of financial growth may solve these complications. Financial and monetary system includes financial markets and banking system. Over the past decades the globalization of financial markets has forced many firm and financial institutions to examine their performance, because their survival in the new condition will deepened on their productive efficiencies. Financial system must be kept in line with economic development and with changes in financial markets worldwide. Some studies showed that in banking system technical inefficiencies are more important than scale inefficiencies. (Berger & Humphreys, 1991). To overcome inefficiencies of the system, some countries have done reforms programs; however some of them have not been successful. Managing huge amount of assets in large banks and financial institutions require regular and constant control, as the slightest weakness in one of such bank's various fields of activity can affect its assets in the long term. Optimal allocation of financial resources between different economic activities in a competitive environment may cause economy development; otherwise, the lack of efficiency in the banking system can lead to waste of financial resources (Schalak, 2010). financial market must be developed in conformity with world economic progress and development and needed to meet the

capital requirements. If the market does not allocate resources, industries that deserve more capital will not get the needed capital, whereas they don't deserve greater investment. Disrupting the financial market can affect the entire economy. Improper utilization of limited means optimal use of funds and underachievement in terms of growth and social welfare.

### Role of bank and credit institution:

Banking is a major part of financial sector in an economy. Banks are the sole providers of funds and their stability is very important for financial system. The banking system in any economy serves as a catalyst for growth and development (Abreu, 2002). The government attempt to evolve an efficient banking system, not only for promotion of efficient intermediation, but also for the protection of depositors, encouragement of efficacy, competition, maintenance of confidence and protection against systematic risk and collapse (Rodrigo, 2003) Banks can be described as financial institutions whose current operations consist of accepting deposits from public and issuing loans. The receiving of deposits and provision of loans distinguishes banks from other financial institutions. Banks and credit institutions perform various roles in the economy. This subject is one of the fundamental issues in theoretical economics and finance. Banks perform an important role in terms of maturity transformation. Bank plays an important role in providing funds for firm and helping them and the economy to grow. They collect demandable deposit and raise funds in the capital market and invest them in long term. Banks act as delegated monitors and that firms use the resources allocated to them effectively. In capitalist economies, saving and

investments process is organized around financial intermediation. Despite the trend of globalisation in recent year, the importance of banks and credit institutions in different economies varies significantly. Naturally, financial resources are provided by people's deposits. The interest rate on deposits is one of the important variables which play a basic role in decision making of peoples. The optimal and efficient way to distribute financial resources is to allocate those to the most efficient and profitable economic sectors under competitive condition of interest rates. (Woldie & Kolawolesdeniji, 2008) .determining the interest rate is the important variable in the economy of all countries around the world. It has an effective relation with saving, financial resources, inflation rate, employment and economy recession and growth (Salehe, 2009).

#### **Banking system in Iran:**

Iran has one of the most highly state dominated banking system in the world. the direct control of the central bank over the commercial banks have removed most of their autonomy (kalbasi at al,2003).In a country such as Iran, due to lack of proper development of financial markets the role of banking system becomes more important and vital. These institutions have the double task of playing the role of a financial system and regulating the capital market. Thus it undertakes a significant role in providing and mobilizing financial resources. Before the 1979 revolution in Iran, the banking system, public or private, operated based on an interest rate determined by the forces of supply and demand for money and the usual intervention of the central bank. After the success of revolution, the government of Iran played a primary role in converting conventional banking system into Islamic banking. This kind of banking system has been established in Muslim countries. The central feature in an Islamic banking system is prohibition of riba. After revelation domestic private banks and insurance companies were nationalized. Foreign bank's representative offices were also closed in 1980.however some of these banks were re-opened with limited operations. The banking system convert from an interest –based to a non-interest based system (Makiayan, 2008). The government also managed to merge these nationalized banks. Islamic banking activates can be classified into two groups. In one group. Their activities are without any competition which is based on interest rate due to the law and regulation which don't allow any activities based on ribah for any banks or financial institutions. The second group is banking activities which are based on interest rate parallel with no interest rate on banking activities (hassani, 2010).

The banking system of Iran is being perceived as an effective tool in pursuance of Islamic

economic objectives. Iran, s structural adjustment program paid attention to fiscal and monetary stabilization and establishment of realistic interest rate. During the last decades the banking sector has experienced worldwide major transformations in the operating environment. Both external and domestic factors have affected its structure and performance (Brock, 2002). Enhancing efficiency and performance of public sector banks was a key objective of economic reforms in Iran. In the first five economic and social development plan the government of Iran made some adjustment in banking system to deal with Iran, s economic problem in 1989.the second and third five year development plan also called for improved macroeconomic management and limiting the rate of interest in the money supply .since 2001 the Iranian government has moved toward liberalising the banking sector. In the third five –year development plan the reconstruction concentrated on reducing the use of executive controls of interest rate, reinvestment of the state banks and establishment of private banks and non bank credit organizations (Taghipor, 2009). In recent year majority of Iran's state -owned banks have been privatized. several privately owned banks such as karafarin bank,parsian,bank,e,qtesad-e-nevin, bank, saman bank, pasargad bank, sarmaye bank and city bank have commenced operation in Iran for the first time since nationalization of Iranian banking sector in 1952.the entry of new foreign and private banks constitute a challenge to the public sector in Iran (Gharoie, 2009). The number of private banks in Iran is much lower than that of developed countries due to the lack of competitive state of affairs in the country (Naghshinepor, 2009). Although a mixture of state and private banking in Iran may be partially considered as a structural problems ,it is ideo- political driven .In recent years the goal of privatization and liberalization has been to improve efficiency of banking activities. There is still a big deal of state banking support in the establishment that prevent complete environment improvement and desirable improvement. It is clear that in the absence of free competitive nature, private banking may deviate from its original objective. In the long term putting no limit on banking interest rate and creating a competitive banking system would be the most efficient solution to getting rid of structural problems of banking system in Iran (Mckinnon & Shaw, 1973). However, given the rather under-developed nature of the capital and bond markets in Iran .almost all financing needs are met through the banking system. As of 2011, about 80 percent of country's wealth was with state banks and remaining with private banks. Iran's financial institutions are banks, finance and credit institutions and gharz al hasaneh funds (Islamic non –profit granting funds). The below table shows comparison

between loans interest rate and inflation rate for government and private banks in Iran (salehe at al,

2008).

Table 1

year	Types of banks	Average interest rate (present)	Inflation rate (present)	Profit Margin (present)
2004	Government bank	16.2	16.4	-2
	Private bank	26		9.6
2005	Government bank	15.8	15.5	.3
	Private bank	25.5		10
2006	Government bank	13.8	13.5	.3
	Private bank	17		3.5
2007	Government bank	12	15.8	-3.38
	Private bank	12		-3.8

### Samples:

#### Main sample

For main sample selection, by Using stratified sampling method companies in Tehran Stock Exchange was classified to the different sections according to type of activity. These sections include: The sample companies in Tehran Stock Exchange according to the different sections according to type of activity was classified. These sectors, including food industry, banks and insurance, basic metals, pharmaceutical industries, metal products, transport equipment and machinery, petroleum And gas, rubber and plastics, electrical machinery, communications, automotive industry, chemical products, paper products and printing , building mass housing, cement and plaster, investment companies, Extraction of metals and coal , ceramics and tiles, sugar, non-metallic mineral products and textiles. In the next stage companies in each sector were identified and the contribution rate of each section (In percent) than the entire companies was also calculated. In the final stage by use of random sampling method a total of 60 companies were selected for sample. Then financial statement of these companies include, balances hit, income statement were collected.

#### Private- Company

In order to test the third sub-hypothesis (H3), as shown in the table below, financial statements of 30 companies in the private sector has been collected as a sample. Financial statements of these companies for a five -year period were extracted and then Return on Asset (ROI) Return on Equity (ROE) was calculated. These companies have been selected from different industrial branch in the private sector by Using stratified sampling method.

#### State-own company's samples data:

There are more than 500 state-owned companies and about 1,000 semi-public companies in Iran. The 2006 IMF Article IV Consultation report notes that Iran began its initial effort toward privatization in the late 1980s-largely through stock market offerings. A second wave of privatization reform in the late 1990s was not very successful due

to complicated regulatory and legal structures and weak political support. The July 2006 executive order to privatize most government-owned companies has given new impetus to privatization. The divestment program aims to transfer 80% of the government's shares in state-owned enterprises to the non-government sector through cash and deferred payments. The Iranian authorities plan to enhance the attractiveness of the domestic securities market; and move forward with other structural reforms. However, the 2008 IMF report points out that due to the lack of significant private investors, "many government-owned entities have been acquired through non-cash or deferred settlements by quasi-public sector institutions. (Gwartney, 2008)

In general, state-owned enterprises are classified into two groups. The first group are those hundred percent of their shares is belong to government. The second group are those more than 50 percent of shares is belong to the government. And other shares are belonging to non-governmental sectors. In this research, the first group of companies has been selected. In order to test the first sub-hypothesis (H1), as shown in the table below, financial statements of 30 industrial State-own companies has been collected as a sample. Financial statements of these companies for a five -year period were extracted and then Return on Asset (ROI) Return on Equity (ROE) was calculated. It should be noted that these companies have been accepted in the Tehran Stock Exchange and more than 50 percent of their shares are belong to government ministries and organizations.

#### Bank's sample.

In Iran's capital market, there are 18 active public and private banks. In this research Banks from both groups have been selected as a sample. In order to test the second sub-hypothesis (H2), as shown in the table below, 12 banks in public and private sector has been collected as a sample. Financial statements of these companies for a five -year period were extracted and then Return on Asset (ROI) Return on Equity (ROE) was calculated.

**Hypothesis:**

Any hypothesis is a specific statement of prediction. This prediction may be relation between two or more variables. A hypotheses never not proving and not annulling relation, but only based on data obtained from sample, just confirm or not confirm these relation. (Bazargan, 1982).in this study hypothesis as are defined are below.

**Main Hypothesis**

**H1:** Return on investment for Iranian banks and is higher than conventional rate (industry average rate).

**Subsidiary hypothesis:**

**H1:** return on investment for an Iranian bank is more than the Return on Assets of Iranian state-own companies.

**H2:** return on investment for Iranian banks is more than the Return on equity of Iranian state-own companies

**H3:** Return on investment for an Iranian bank is more than the Return on assets of Iranian private companies.

**H4:** Return on investment in for an Iranian bank is more than the Return on equity of Iranian private companies.

**Main hypothesis testing**

This hypothesis stated that the return on investment done by Iranian banks is higher than conventional rate (Industry average rate of return on assets and equity). In this situation Null hypothesis and the alternative hypotheses are as follows.

$H_0$  (the null hypothesis) = rate of return on assets done by Iranian banks is Less than or equal to conventional rate (Industry average rate of return on assets) .Or

HO:  $M1 \leq M2$

$H_1$  (alternative hypothesis) = rate of return on assets done by Iranian bank is higher than conventional rate (Industry average rate of return on assets) .Or

H<sub>1</sub>:  $M1 > M2$

In order to test this hypothesis, Rate of return on assets obtained from the original sample will be

compared with rate of return obtained from Iranian bank. We calculate significant value by Use of statistical test discussed in previous sections. Significant value obtained from this test is.26. On the other hand, as the following table shows the mean score differences (ROA) between main sample and bank sample is not significant. Under such circumstances, the null hypothesis is not rejected. In other word, alternative hypothesis is rejected. So with 95 percent confidence we can say there is no difference between the return on assets done by Iranian bank and conventional rate (Industry average rate of return on assets).

In the Next step, these hypotheses for rate of return on equity are defined.

$H_0$  (the null hypothesis) = rate of return on equity done by Iranian bank is Less than or equal to conventional rate (Industry average rate of return on equity). Or

HO:  $M1 \leq M2$

$H_1$  (alternative hypothesis) = rate of return on equity done by Iranian bank is higher than conventional rate (Industry average rate of return on equity) .Or

H<sub>1</sub>:  $M1 > M2$

In order to test this hypothesis, Rate of return on equity obtained from the original sample will be compared with rate of return obtained from Iranian banks. We calculate significant value by Use of statistical test discussed in previous sections. As the below table shows significant value obtained from this test is. 11. On the other hand, as the following table shows the mean score differences (ROE) between main sample and south pars sample is not significant. Under such circumstances, the null hypothesis is not rejected. In other word, alternative hypothesis is rejected. So with 95 percent confidence we can say we can say there is no difference between the return on equity done by Iranian bank and conventional rate (Industry average rate of return on equity).

**Table 2.** Distribution frequency and compare mean scores (ROA &ROE) between Main Sample and Iranian Banks sample.

Samples	Scores			T- VAL	DF	Sig
	Number	Mean	Std. Deviation			
Main Sample(ROA)	60	2.766	2.008	-1.163	70	.260
Banks(ROA)	12	3.531	2.403			
Total	72	6.297	4.411			
Main Sample(ROE)	60	6.483	3.750	-2.748	70	.11
Banks (ROE)	12	10.095	5.768			
Total	72	16.578	8.518			

\*ROA: Return on Assets

\*ROE: Return on Equity

Finding of this table shows that distribution between Main Sample and bank's sample is not deferent. In other word, as the Sig value test shows the mean scores differences (ROA &ROE) between Main sample and an Iranian bank is not significant.

#### Testing the second subsidiary hypothesis

This hypothesis stated that the return on investment done by Iranian private company is higher than the Return on Assets and the return on equity obtained from Iranian banks. At the first step, hypotheses related to the rate of return on asset are considered and tested. In this situation Null hypothesis and the alternative hypotheses are as follows

$H_0$  (the null hypothesis) = rate of return on assets done by Iranian private company is less than or equal to the Return on Assets of Iranian banks. Or  
HO:  $M1 \leq M2$

$H_1$  (alternative hypothesis) = rate of return on assets done by Iranian private companies is higher than the Return on Assets of Iranian banks. Or

$H_1$ :  $M1 > M2$

In order to test this hypothesis, Rate of return obtained from Iranian private companies sample will be compared with rate of return obtained from Iranian banks. we calculate significant value by Use of statistical test discussed in previous sections. Significant value obtained from this test is .028. On the other hand, as the following table shows the mean score differences (ROA) between banks sample and private companies sample is significant. Under such

circumstances, the null hypothesis is rejected. In other word, alternative hypothesis is accepted. So with 95 percent confidence we can say that the return on investment done by Iranian private companies is higher than the rate of Return on assets of Iranian banks.

In the Next step, these hypotheses are defined and tested for rate of return on equity.

$H_0$  (the null hypothesis) = rate of return on equity done by Iranian private company is less than or equal to the rate of Return on Assets of Iranian banks. Or

HO:  $M1 \leq M2$

$H_1$  (alternative hypothesis) = rate of return on equity done by Iranian private companies is higher than the rate of Return on Assets of Iranian banks. Or

$H_1$ :  $M1 > M2$

In order to test this hypothesis, Rate of return on equity obtained from Iranian private companies sample will be compared with rate of return obtained from Iranian banks. We calculate significant value by Use of statistical test discussed in previous sections. Significant value obtained from this test is .000. On the other hand, as the following table shows the mean score differences (ROE) between Iranian banks sample and Iranian private companies sample is significant. Under such circumstances, the null hypothesis is rejected. In other word, alternative hypothesis is accepted. So with 95 percent confidence we can say that the Rate of return on equity done by Iranian private companies is higher than the rate of Return on equities of Iranian banks.

**Table 3.** Distribution frequency and compare mean scores (ROA &ROE) between Iranian banks and Private company sample.

Samples	Scores			T- VAL	DF	Sig
	Number	mean	Std. Deviation			
Banks (ROA)	12	2.766	2.008	-2.309	40	.028
Private co(ROA)	30	4.583	2.912			
Total	42	7.379	4.920			
Banks (ROE)	12	6.483	5.589	-3.923	40	.000
Private co(ROA)	30	12.320	5.589			
Total	42	18.803	6.078			

Finding of this table shows that distribution between bank and insurance companies sample and Private company sample is deferent .in other word, as the Sig value shows the mean scores differences(ROA &ROE) between Iranian banks companies Private company sample is significant.

#### Testing the second subsidiary hypothesis

This hypothesis stated that the return on investment done by Iranian banks is higher than the

Return on Assets and the return on equity obtained from Iranian state-own companies. At the first step, hypotheses related to the rate of return on asset are considered and tested. In this situation Null

hypothesis and the alternative hypotheses are as follows

$H_0$  (the null hypothesis) = rate of return on assets done by Iranian banks is less than or equal to the rate of Return on Assets of Iranian state-own companies. Or

HO:  $M1 \leq M2$

$H_1$  (alternative hypothesis) = = rate of return on assets done by Iranian banks is more than the rate of Return on Assets of Iranian state-own companies. Or

$H_1$ :  $M1 > M2$

In order to test this hypothesis, Rate of return on assets obtained from the Iranian



state-own companies sample will be compared with rate of return on assets obtained from Iranian banks. We calculate significant value by Use of statistical test discussed in previous sections. Significant value obtained from this test is .798. On the other hand, as the following table shows the mean score differences (ROA) between Iranian banks are sample and state-own companies sample is not significant. Under such circumstances, the null hypothesis is not rejected. In other word, alternative hypothesis is rejected. So with 95 percent confidence we can say there is no difference between the rate of return on assets done by Iranian banks Rate of return on assets obtained from the Iranian state-own companies. In the Next step, these hypotheses are defined and tested for rate of return on equity.

$H_0$  (the null hypothesis) = rate of return on equity done by Iranian banks is less than or equal to the rate of Return on Assets and of Iranian state-own companies. Or  
HO:  $M1 \leq M2$

$H_1$  (alternative hypothesis) = rate of return on equity done by Iranian banks is more than the rate of Return on equity of Iranian state-own companies. Or

$H_1$ :  $M1 > M2$

In order to test this hypothesis, Rate of return on equity obtained from Iranian banks sample will be compared with rate of return obtained from Iranian state-own companies. In order to do test this hypothesis, we calculate significant value by Use of statistical test discussed in previous sections. Significant value obtained from this test is.366. On the other hand, as the following table shows the mean score differences (ROE) between Iranian banks sample and Iranian state-own companies sample is not significant. Under such circumstances, the null hypothesis is not rejected. In other word, alternative hypothesis is rejected. So with 95 percent confidence we can say there is no difference between the return on equity obtained from Iranian banks and Rate of return on equity obtained from the Iranian state-own companies.

**Table 4.** Distribution frequency and compare mean scores (ROA &ROE) between state-own companies sample and Iranian banks sample.

Scores Samples	number	mean	Std. Deviation	T- VAL	DF	Sig
State-own co(ROA)	25	2.9640	2.48343	.2588	33	.798
Banks (ROA)	12	2.7667	2.00877			
Total	35	8.969	5.84			
State-own co(ROE)	25	7.7080	3.84923	.922	33	.366
Banks (ROE)	12	6.4833	3.75035			
Total	35	14.191	7.599			

Finding of this table shows that distribution between state-own companies sample and Iranian banks sample is not deferent .in other word, as the Sig value test shows the mean scores differences(ROA &ROE) between state-own companies sample and Iranian banks sample is not significant ( $p = .798$  & .366).

Finding and conclusion:

As mentioned, Banking is a major part of financial sector in an economy. In a country such as Iran, due to lack of proper development of financial markets the role of banking system becomes more important and vital. In this study we want to examine the investment rate for Iranian banks and then compare it to investment rate for other sections of Iranian economy. As the result shows there is no difference between the rate of return on assets and rate

or return on equity obtained from Iranian banks and rate of return on assets and rate return on equity obtained from average industry. And also there is no difference between the rate of return on assets and rate or return on equity obtained from Iranian banks and rate of return on assets and rate return on equity obtained from Iranian state-own companies. On the other hand, the rate of return on assets and rate or return on equity obtained from Iranian private companies is more than the rate of return on assets and rate or return on equity obtained from Iranian banks. During the last decades the banking sector has experienced worldwide major transformations in the operating environment. Majority of Iran's state - owned banks have been privatized. In recent years the goal of privatization and liberalization has been to improve efficiency of banking activities. There is still

a big deal of state banking support in the establishment that prevent competitive environment improvement and desirable improvement. It is clear that in the absence of free competitive nature, private banking may deviate from its original objective. Here we can conclude that there is no difference between the efficiency of Iranian banks and other Iranian state-own companies. Although most Iranian banks have been privatized, rate of return on their investment is similar to Iranian state-own companies. So we can say they are not privatized absolutely. So complete liberalization and privatization of Iranian banks is very necessary for Iranian government. On the other hand, if Iranian government want to improve efficiency of banking activities and getting rid of structural problems of banking system, competitive environment must be prepared for them.

#### References:

- 1- Abreu. M. Mendes.V (2002), commercial bank interest and profitability: evidence from E.U countries. Working Paper Series, Porto.
- 2- Berger.Allen & David.B.Humphery (1991), the dominance of inefficiencies over scale and product mix economic in banking, journal of monetary economics. No 28
- 3- Brock.P (2002), concentration and other determination of bank profitability in Europe. Journal of banking and finance, PP: 65-80.
- 4- Gharoie, R (2009), building managers as transformational leaders in public sector banks, international review of business research papers, 5(5).pp:355-364
- 5- Hassani. M (2010), Islamic banking and monetary policy, experience of Iran. International review of business research papers,vol 6,no.4 pp:430-443
- 6- Kalbasi.N, Hasanzade.A (2003), X-efficiency in Iranian banking system, second CIEF work shop, European integration and banking system, Lisbon, Portugal.
- 7- Makiyan.N (2008), Islamic banking system in Iran: its experience in lending operations, Iranian economic review, Vol 8.No.9
- 8- Mckinnon.R (1973), money and capital in economic development, New Haven, Yale University Press.
- 9- Nmazi, M.A (2010), the role of inflation in financial repression: World applied science journal, 11(6), pp: 653-661).
- 10- Nagshinen -Por .A (2009), Iran, s banking and monetary problems. Munich Personal Papers.
- 11- Salehe.M, Abedeni.B (2008), Iranian angle: worth of audit report, journal of Indian management, pp: 82-90.
- 12- Salehi, M (2009), banking crises: empirical evidences from Iranian banks, Pakistan journal of commerce and social science, (2)25-32
- 13- Taghipor.A (2009), financial restraint and financial development 9n Iran, the conditional co integration approach, review of middle east economic and finance 5(2)pp:1-20
- 14- Woldie,A(2008),how has financial liberalization improved the flow of external finance for SEM in Nigeria ,bank and bank systems,3(3)PP:20-30.

3/25/2013