Making Interest-free Banking System More Efficient with Regards to Interest Rate

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1- Introduction

Banking industry has faced big changes since 1990 and the speed of these changes have been increased rapidly along with the development of communication facilities, globalization, deregulation, technological improvements and information technology advances, in particular.

Profit making has been the main incentive for many institutions and the market experienced significant competition over the development of the active firms in this industry. The increased competition of the market has also another characteristic. As the firms are not the same in size and both big and small firms are doing business probably what makes these firms of all size survive in this industry is a good and reasonable profit.

In order to investigate the performance of the banks, we will introduce some indexes and ratios to compare the selected banks with respect to their performance.

There are other factors which can affect the compatibility using ratios (such as specialized business of the banks), but in sum, are used for comparison worldwide. Some standards have been introduced. In this article, a comparative approach of the relevant ratios among the banks of the selected countries will be carried out and then, some methods for better performance of the interest-free banking will be introduced.

2- Important Financial Ratios For Evaluating Economic Performance Of Banks:

2-1- Profit Ratios

Profit ratios in banks can be categorized into return on assets, return on equity, the ratio of profit to the cost, the ratio of the cost to income and the ratio of net profit to deposit which have the following definition as below:

- Return on assets: this ratio is produced by dividing profit after the tax is paid out by the whole assets and shows the amount of profit obtained from the value of each unit of asset.

On the other hand, this ratio represents the capability of optimal management of actual and financial sources of bank to make profit. A low level of this ratio shows that bank did not use his assets efficiently. In fact, ROA is an index of efficiency. The standard ratio for ROA is one percent (Mohammad Mahdavian, Hadi 2004, page 81).

- Return on Equity: this ratio is produced by dividing profit after subtraction of tax by the average of the total capital (bond holder's right).

In short, ROE shows how much net income has been obtained from each unit of shareholders and also reflects the fact that how successful the management of bank has been to use more efficiently the money invested by shareholders. If this ratio has an increasing trend, then the bank operation is highly efficient. The standard ROE is 15 percent.

- Net Operating Margin (NOM): this ratio is provided by dividing the net operating income by the whole assets. The lower ratio means that the bank has not made a good profit. In contrast, the higher ratio is an indication of making good profit and the bank management has successfully reduced the operating costs.
- Net Interest Margin (NIM): This ratio can be obtained by dividing the difference between earned and paid interest by the average assets and clarify the main income source of bank as a percentage of the whole assets.
- Cost Income Ratio: this ratio shows the portion of administrative costs (including personnel costs, equipments, rent, depreciation, property insurance,…) by operating income of banks. Obviously, the lower the ratio is, the better the performance of bank is.
- Yield Spread Ratio: This is the average percentage return on payments minus the average percentage return on incurring costs and shows the portion of the banking system difference of earnings from collecting revenues and payment of loans as a percent.

2-2- Capital Ratios

The capital of a bank serves as a strong guard against the financial problems raised by the probable losses. It is the shareholders who should bear the capital losses first (and not the depositors). By the way, the required financial source that is necessary for the bank to survive is provided by this capital.

The importance of capital adequacy is presented by the Basle Committee on Banking Supervisions after a criteria based on what is known as risky assets is defined. The method offered by Basle Committee describes the capital components (Tier 1, Tier 2) for supervision purposes. In this chapter, in order to show the position of different banks, we mainly use the capital adequacy ratio, Tier 1 ratio and capital ratio. Capital adequacy ratio is obtained by dividing the base capital by risk weighted assets and Tier 1 ratio is produced by dividing Tier 1 by risk weighted assets. The bigger the portion of Tier 1 in the composition of capital adequacy, the better the status of bank in the view of capital is. Capital ratio is also obtained by dividing shareholder's right by the average of the whole assets. This ratio shows the percentage of capital in the whole bank assets.

- **Shareholder's right/ total assets ratio**

This ratio implies that how much protection the bank receives from shareholders who have invested in the bank. The higher the ratio is, the more stable the bank is.

The reverse of this coefficient is called the capital multiplier coefficient that is the amount of assets per unit of capital in shares. A big multiplier coefficient means it has accumulated its assets using more borrowings than the capital itself.

- **Shareholder's right/net loans ratio**

This ratio shows the protection power of shareholders in absorbing loans.

2-3- Liquidity Ratios

Current and savings deposits can rapidly be drawn out of the bank so when the amount of deposits drawn is significantly more than the amount of new deposits, then bank will face a liquidity problem. There are some criteria to determine the liquidity in the bank as below:

- **Loan/deposit ratio**

A higher loan/deposit ratio implies that the bank bears a heavier financial burden when it lends more loans. So, lower ratio is preferred. Two factors as reserve rate and the amount of capital of the bank have worldwide effect on this ratio. This ratio in the country with respect to the average reserve ratio and the capital of the banks is about 80 percent.

- **Net loans/total assets ratio**

Though this ratio can vary over private and public banks, but provides a basis for calculation with regards to standards. This ratio shows how much of the total assets are in the form of loans. The higher this ratio is, the less the liquidity of bank is. (Kabir Hassan, 2003, P 314).

- **Net loan/current and short-term time deposit ratio**

This ratio is obtained by dividing total loans and facilities by current and short-term deposits.

- **Net loan/total deposits ratio**

This ratio is obtained by dividing total loans by total current and time deposits.

- **Liquid assets/total loans and deposits**

This ratio is obtained by dividing assets with a high degree of liquidity (such as fund, demand deposit held in banks and bonds) by the total deposits and liabilities to other banks and financial institutions.

- **Liquid assets/short-term deposits**

This ratio is obtained by dividing liquid assets (funds, demand deposit held at banks and fast exchangeable bonds) by current savings and short-term deposits.

3- Comparative Investigation And The Analysis of The Performance of Three Groups of Banks

In this section, the performance of these three groups of banks (Iranian banks, Islamic banks in other countries and foreign conventional banks) have been investigated comparatively based on the consolidated performance of the relevant banks in the reported years. On this base, financial ratios are calculated using the final average (the average of the averages) as follow:

In table 1, final weigted average of Iranian banks have been compared to those of the other two kinds of banks (Islamic banks in other countries and the foreign conventional banks). Based on the above mentioned table, the selected financial status in the three kinds of banks are as below:

- Profit making ratios: The status of each profit making ratios in the three kinds of banks will be analyzed and compared as following:

The return on assets ratio in the Iranian banks is 0.83 percent which is less than the defined standard (1 percent). In comparison, the mentioned ratio is significantly less than that of the Islamic banks and some what less than that of the foreign conventional banks. The return on capital in the Iranian banks equals to 14.62 percent, that is a little less than the defined standard (15 percent). Comparative study of this ratio shows that the foreign conventional banks have a better status (with a little difference) but the Islamic banks in other countries are considerably in a worse situation.

The profit margin and the operation margin in the Iranian banks were 3.16 and 8.27 respectively which represent a better status in comparison to the other two kinds of banks. Cost/income ratio (efficiency ratio) in the Iranian banks is 55.89 percent which is more than those in the other two kinds of banks (47.85 and 54.30 percent respectively) and this places the Iranian banks in a lower position.

Spread yield ratio of 5.23 percent for the Iranian banks is significantly higher than those in the other two kinds of banks. But we should note that this ratio is highly affected by the inflation rate and the competition among the banks. This ratio in the countries with relatively high inflation should be around 5.0 percent, and in countries with low inflation, about 2.5 percent.

With respect to all the profit making ratios, it seems that on average the Iranian banks have had a better status than the other two kinds of bank during the period under review.

- capital ratios: comparative investigation of capital ratios in the three kinds of banks under consideration had the following results:

Shareholder's right/total assets ratio in the Iranian banks is 4.70 percent which is significantly less than that of the other two kinds of banks. Capital adequacy ratio is 7.75 percent. This ratio is almost the same as the standard ratio (8 percent) though is less than those in the other two kinds of banks (11.56 and 11.77 percent respectively). In this context Tier 1 is 5.11 percent in the Iranian banks which is less than that in the Islamic banks and foreign conventional banks.

These results lead to conclude that in overall, the capital status in the Iranian banks is significantly weaker as compared with the other two kinds of banks.

- Liquidity ratios: Evaluating each of the liquidity ratios in the three kinds of banks has had the following results:

- Net loan/total assets ratio in the Iranian banks is 56.16 percent. This ratio is higher than that of the Islamic banks in other countries (49.60 percent) and less than that of foreign conventional banks (65.49).

Net loan/short-term deposits and Net loan/total deposits ratios are also in the same position and examples of this is Net loan/total assets ratio which is 80.05 percent in the Iranian banks which is higher than that of Islamic banks in other countries (61.56 percent) and less than that in the foreign conventional banks (87.15 percent).

As we mentioned earlier, the higher above ratios (in comparison to the relevant ratios) in a bank, implys a higher pressure on the liquidity. In this view, Iranian banks are in a better position than the foreign conventional banks, but in a worse position in comparison with the foreign Islamic banks.

- Liquid assets/total deposits and borrowings ratio in the Iranian banks is 30.19 percent which is higher than the same ratio in the foreign Islamic banks (16.72 percent) and less than this ratio in the foreign conventional banks (33.35 percent). Liquid assets/short-term deposits ratio is also 60.37 percent which is higher than that of the foreign Islamic banks (16.84 percent) and less than that of the foreign conventional banks (82.89 percent).

Anyway, the high amount of the above mentioned ratios indicate a better liquidity position and the low amount of those indicate a worse liquidity position. So it can be concluded that the Iranian banks are at a higher level than the foreign Islamic banks while being at a lower level in comparison with the foreign conventional banks with regards to these ratios.

4- Conclusion

Comparative study and the analysis of the three groups of banks (Iranian banks, Islamic banks in other countries and the foreign conventional banks) in the previous section indicates that in overall, the Iranian banks with regards to some of the financial ratios (as compared to the other two kinds of banks and the standard criteria) has both weak and strong points and the necessary recommendations to improve the ratios will be suggested.

Table (1): The final averages of the financial ratios in the Iranian banks, the foreign Islamic banks and the foreign conventional banks in the years under review

Financial Ratios	**Final average of the financial ratios in the Iranian banks**	**Final average of the financial ratios in the foreign Islamic banks**	**Final average of the financial ratios in the foreign conventional banks**	**Standard**
Profit making ratios				
Return on assets ratio	0.83	1.32	0.95	1.00
Return on capital ratio (percent)	14.62	11.90	15.55	15.00
Profit margin ratio	3.16	3.09	2.24	4.50
Operating margin ratio (percent)	8.27	2.57	2.36	6.50
Cost/income ratio (Efficiency ratio)	55.89	47.85	54.30	50.00
Spread yield ratio	5.23	3.57	2.98	*
Capital ratios				
Shareholder's right/total assets ratio	4.70	12.27	6.79	-
Capital adequacy ratio (CAR)	7.75	11.56	11.77	10.00
Tier 1	5.11	7.98	8.88	6.00
Liquidity ratios				**
Net loan/total assets ratio	56.16	49.60	65.49	**
Net loan/short-term deposits ratio	194.93	59.48	338.00	**
Net loan/total deposits ratio	80.05	61.56	87.15	***

Liquid assets/total loans and deposits ratio	30.0	16.72	33.35	***
Liquid assets/short-term deposits ratio	60.37	16.84	82.89	***

✳ *Based on the investigations and the opinions of the authorized experts, the above ratio in the counties with the low rate of inflation and the countries with high rate of inflation must be 2.5 and 5.0 percent respectively.*

✳✳ *The high value for the above three ratios means a high liquidity pressure in the bank.*

✳✳✳ *The value for the above two ratios means a reduced liquidity pressure for the bank.*

4-1- Profit-Making Ratios

There is no problem with respect to net operating margin (NOM) and the spread yield ratio. Referring to other ratios; some points will be addressed as follow:

- Return on assets (ROA) ratio and return on equity or capital (ROE) ratio and net interest margin (NIM) ratio:

Return on assets, return on capital and net interest margin during the reported period of five years were 0.83, 14.62 and 3.16 percent respectively which are a little less than the current standards (1.00, 15.00 and 4.50 percent respectively). This fact proves that the profit making of the Iranian banks is less than the standard level. Regarding the gap between these ratios with standards and with the ratios in the other two kinds of banks, it can be concluded that there is no serious problem in this regard but we can highlight some special matters to improve the situation and enhance the profit making of the Iranian banks:

A- Careful evaluation of loan facilities: loan applications need to be considered carefully with regards to economic, financial and technical criteria by the bank experts to minimize the probability of loss of the awarded loans. Obviously, not paying enough attention to this matter, will reduce the investment opportunities in the profit making projects on one hand and will increase the probability of not receiving back the principal loan and the interests that should have been paid back by the customer to the bank.

Paying back the principal loan and the interests in time, will provide a basis for new loan facilities and to make profits by the bank. Otherwise, increased in default and the loans in due time, will cause a huge loss of resources and the bank will have to bear a loss.

B- Knowing customers and evaluating their credit rating for them: Bank records of the loan applicants should be clean and clear for the bank lender. For example, customer's loan in other banks, the status of unpaid debts and returned cheques in the status of banking network should be considered thoroughly before lending any new loan and facility.

C- Resource funding: in sum, the main source of income for a bank comes from lending loans to customers. In this way, the ability of the bank to have an accumulated funding, is the most necessary condition with this regard.

D- Careful and continuing investigation of the quality of the assets (facilities) and appropriate accumulation.

E- Offering new bank products: Innovation in the field of providing new bank products (in both absorbing and assigning resources) in matching with the current needs and requirements of clients can satisfy customers and make more suitable profits.

F- Plan supervision after lending facilities: On-site supervision on lending and prevention of the probable misusing, will provide a basis for efficient use of resources and making more profits.

- Cost / income ratio: the cost / income ratio in the Iranian banks is 55.89 percent which is higher than the standard ratio (50.00) and much higher than those in the other two kinds of banks (Islamic banks in other countries and the foreign conventional banks). This high ratio indicates that the Iranian banks are less successful in controlling the costs than the other two kinds of banks.

The ways to reduce the costs include: reducing the unwanted costs savings on administrative and personnel costs and also promote.

E-banking which in turn increases profit and enhances efficiency.

4-2- Capital Ratios

With regards to capital in this report, three ratios have been evaluated and all of these ratios are less than those in foreign Islamic banks and foreign conventional banks. The best standard conditions for the capital adequacy ratio (CAR) and capital ratio are defined 10 and 6 percent respectively. Foreign Islamic banks and foreign conventional banks have higher values but it is significantly less in Iranian banks. It is worth noting that based on the regulations of the central bank of the Islamic Republic of Iran, the capital adequacy ratio for the banks should be at least 8 percent and the share of the original capital should not be less than 4 percent. So, on the basis of the country regulations, original capital ratio is higher than the minimum requirements and the capital adequacy ratio is about the acceptable minimum. However, we suggest that banks should improve the capital status which acts as a shield against the probable losses incurred by banks:

A- There are two solutions to improve the capital adequacy, one is to increase the quantity of capital and the other is to reduce the risky assets. We should however note that the second solution (reducing risky assets) is relatively difficult to attain since it limits the growth of bank. The first solution (increasing the quantity of capital) is approprate in the view of the lending practice and Basle Committee when it relies on the internal activities of the bank. In other words, the increase of capital should be done through assigning parts of the net earned profit to the bank in order to provide the bank with accepting more liabilities and offering new facilities. It should be mentioned that the increase of capital via reevaluating the fixed assets (which purely affects the original capital or the second component), is not widely acceptable by the international agencies and the underlying experts.

B- Lending loans to relevant persons or insiders (main shareholders and bank managers) based on central bank regulations should also be considered by the bank.

This is because, according to regulations in the countries including Iran, these loans should be deducted from the capital of the bank and therefore, these facilities will cause the capital to reduce and deteriorate the capital adequacy ratio.

4-3- Liquidity Ratios

In general, the age (maturity) structure of the assets and liabilities of the banks do not match. The maturity for payments of assets is longer than the liabilities and we can say it is one of the important jobs and duties in the banking profession to deal with.

With regards to the liquidity, five ratios have been evaluated and as it can be seen from table 1, all the calculated ratios for the Iranian banks were bigger than those for the foreign conventional banks. We conclude that Iranian banks are laid between foreign Islamic banks and foreign conventional banks in this regard.

Anyway, we can offer some suggestions regarding the improvement of the liquidity position of the banks:

A- Pay enough attention to the quality of the assets: Reduced quality of assets, i. e. increased past due and unpaid claims of bank, means unreasonable sediment of the resources with customers, not paying back the installments of the loans lent, meanwhile disturbing the incoming source of cash into bank. Banks must maintain the quality of assets at a suitable level. Implementation in this regard includes preventing over lending. We mention that the reduced quality of assets, while creating liquidity crisis, will reduce the profit for the banks. Low profit will in turn impede the trend of the capital accumulation and therefore the future growth of bank will face serious problems.

B- Knowing age (maturity) structure of the assets and liabilities: banks should have a clear picture of the age structure of the assets (loans and facilities) and liabilities (deposits) in their Management Information System (MIS) in order to prevent any disturbance in the liquidity of the bank.

C- Using the inter bank market: Banks under the pressure of liquidity in the short-run, can borrow from this market at a reasonable rate.

D- Investment on bonds and shares: Banks should diversify their resources and invest part of their resources into bonds and shares with high liquidity in order to liquid them easily when they are short of money.

E- Credit line: Banks can obtain credit lines by signing agreements with financial institutions.

5- General Suggestions

Firstly, we point out that the banking networks in various countries face a risk titled “Systemic Risk” such that a problem accruing for a bank can extend to the whole banking network and cause the whole system to face a serious problem. The main reason for this extension of the crisis is the violation of the public trust and also high financial dependence of banks on each other. In addition to general recommendation and case to case suggestions which offered while considering the financial ratios, we present some general suggestions to improve and enhance the banking industry in Iran:

A- Observation of prudential regulations that has been communicated to banks by the central bank of the Islamic Republic of Iran. Considering these regulations has guaranteed safe performance of the banks and prevent them from facing big challenges and crisis.

B- Creating a unified risk management for the banks: Banks face several risks, the most important of all are credit risk, liquidity risk, operating risk and market risk. Since eliminating all the risks is impossible, so the only solution to this problem is to control and manage it.

Assigning a special unit for risk management for banks and extending E-bank in particular seems very crucial and necessary.

C- Bank privatization which is a priority for the government according to article 44 of the constitution can make a big change in the country banking profession. By reducing the intervention of the government in the banking system and enhancement of the regulatory role of the government, the financial ratios and indices will definitely improve.

By privatizing banks, corporate governance of banks will be carried out more easily. In corporate governance, we have a new look into the old category of "organization and management". Organization of Economic Cooperation and Development (OECD) has defined the corporate governance as follow: "A collection of the relations which exist among administrative management, the board of directors, shareholders, and other interested people within a firm. Corporate governance also determines the structure by which, the goals of the firm is defined and the tools to approach these goals and supervising the performance is established. Desired corporate governance should provide the board of directors and the administrative management with appropriate incentives to target those goals which are of the interests of the firm and its shareholders and makes it possible to have an effective supervision. In this way, the firms are encouraged to use the resources more efficiently.

Corporate governance is characterized by separation of the responsibilities of the administrative management from those of the board of directors and also promotion of taking responsibility at all levels of the firm (including bank). It should be mentioned that the corporate governance has been given a priority in Tehran Stock Exchange and there is hope that all the registered firms with the stock exchange will be required to adopt this new system and comply with the requirements of the corporate governance will be a pre-condition to enter the stock exchange.

D- Training and instructing the employees: the instruction of the bank employees as a continual process will provide the efficiency and increase the profit and overall will lead to a better management of the bank.

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