

Study relationship between long-term interest rate with inflation in the Islamic banking in Iran

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Abstract: Taxonomic diversity of understory vegetation (herb species) was studied in two evergreen forests, viz. oak and pine in the Kumaun Himalaya. In terms of taxonomic diversity, Asteraceae and Lamiaceae were the two dominant families in the sampling forest types. Maximum number of species was found at hill base and minimum at hill top in both the forests. The number of families, genera and species ratio observed for pine forest was of course higher with compared to the oak forest showed about the higher taxonomic diversity. Perennials form had higher contribution as compared to annuals forms indicated better ability to store up soil. Very few species (9 species) were found to be common indicates higher dissimilarity in both type of forests. Species richness (per m²) was higher in the pine forest than the oak forest. A high value of beta-diversity in the oak forest point out that the species composition varied from one stand to another. However, low concentration of dominance value in the pine forest with compare to the oak forest point towards the dominance, which is shared by many species.

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1. Introduction

Banking system, as an organization has always been a strong and reliable economic and financial need of diverse communities has been competitive market-based economy. In classical banking system interest rates as monetary policy is one of the most important tools in the sense that monetary policy by raising or lowering interest rates to decrease or increase the volume of money in circulation act and its contribution to change in liquidity. Therefore, due to the elimination of interest in Islamic banking system is another tool used as a substitute for policy makers will be to implement monetary policy which includes the interest rate accounts, honorarium at the rate of deposit, minimum and maximum interest rates and the expected minimum and maximum share ratio and the expense.

In the case of interest rate accounts can be given that the underlying profitability of the bank's activities in different economic sectors, banks are required and the total profit after deductions imposed comprehensive information relevant to their depositors of the potential benefits arising from their deposit to make a decision is very important. For this reason banks at the beginning of the year due to expected income from investments in the financial period that affected the facilities expected profit rate, required reserve ratio and realized profit of the previous period and taking into account the rate of honorarium by the Money and Credit Council is set to announce interest rate deposit accounts invest. The expected rate of profit or rates of return investors expect include expected profit from an investment in a

given time period compared to the volume of facilities granted. Minimum and maximum allowable rates determine the expected profit for banking facilities and can be a tool for banks to compete with each other.

In some facilities, such as and civic participation tools definitive rate fixed by the amount of profit is not permitted, thus, according to the Bank and return the minimum and maximum expected profit economic activity ratio of profit to be determined. Obviously, by increasing the ratio of profit for banks and reduced costs of banks by reducing the proportion of demand for bank loans would increases.

The roof can be one of the main tools to facilitate individual and collective acts of individual ceilings facility's monetary policy and the fact that the volume of facilities granted legal deposit is a function of the size and resources, so by lowering the ceiling, facilities distributed among a larger number of persons and increase it may be possible to more convenience to everyone. Thus, conditions for investors will be larger. On the other hand monetary policy can help to create balance and harmony in various economic sectors for each department, the public library should refresh determine the principles of faith; interest is equal to the interest. Thus, payments should be interest-free. Instead of paying interest, dividends can be based on performance. Also in Islamic economics, when a fair profit is equal to the rate of return on capital.

Literature review:

Akbar Keshavarzian (Journal of Planning and Budget, No. 108) in this paper was conducted using a

system of simultaneous equations tried to interest rate optimization to maximize the growth of banks in Iran. Finally, the overall results achieved under: 1. to determine the optimal interest rates and the growth of money demand functions were estimated for systems of simultaneous equations. 2. The optimal interest rate in the banking system of Iran, floating up and set it on the basis of interest-free banking and its relationship with the purchasing power of money and the best scenario to determine interest rate + 4% inflation rate in Iran. 3. Real interest rates and growth in investment transactions McKinnon-Shaw hypothesis is positively correlated relations. 4. In the money demand function, the real interest rate, the highest multiplier is allocated. 5. The investment estimate showed that capital investment has the greatest impact on growth. 6. In the growth function, the facilities granted by banks, the most positive impact on economic growth.

Ali Reza Sharif Moghadasi (Journal of the Islamic letter, Issue VII, fall 2007) This article is about the clarification of the concept of usury and interest, and interest in the Islamic banking system has finally achieved results: 1. receive interest from borrowers manufacturing facilities and commercial and investment bank interest payments to owners of deposits does not conflict with justice. 2. In Islam, the determination of "profit share" is permitted, but determining "realized profit rate" is prohibited. 3. All interest rates by banks will be announced for the accounts. 4. By virtue of Article 4 of the Law on the Guarantee of Deposits Bank interest-free banking justified on this basis that it can be insured.

Salami and Bahmani, from "interest-free banking law and regulations, and guidelines": In this paper, we try to use portfolio theory to determine the effect of interest rates for bank loans on the efficiency of Islamic banking and finance the depositors' rights. Results are as follows to determine the constant interest rate for the facilities around the banks caused by the Money and Credit Council, the actual participation in investment projects on the basis of expected income and risk of mental.

Dr. Muhammad Abazari and Dr.Said Samadi, conductor Timorese, the article examine the factors affecting the risk and the return on investment in financial products. The article also refers to the investment process and risk and return on investment in financial products in three categories of factors: macro-economic, micro-economic, briefly examined model was presented in the combination of these factors that the macro-economic factors affect systemic risk is to invest in financial products. Micro-economic factors affect the unsystematic risk of investing in financial products. Risk perception risk investments tend to be negative solidarity. An

investment on deposit accounts, regardless of the relationship between risk and return takes place.

Mohammad Rafiqh Javaheri in this paper is firstly to define its concepts and features and challenges of Islamic banking and ultimately profits in banking and tradition Shi'a scholars discuss and comment on posts profit. And come to the conclusion that Islamic banking with the aim of avoiding usury and sound circulation of money and facilitate attainment of the goal of economic justice and equity based strategies such as Mudaraba, a lawyer, hire-purchase, credit, futures, and funds have been established they share the lack of efficient fixed and there is a risk that these contracts are divided into two categories of partnerships and exchanges. Finally, strategies to solve the stated problem such as purchase goods at prices higher than the market price of lender instead of paying directly benefit or in the absence of the creditor's intent to surplus (profit) or take profit based on legal contracts.

Seyyed Hossein Mahdavi Najmabadi, in this article that talked about Islamic banking floating interest rate at the end of the three words summarize the author's conclusion, first, the idea of using floating interest rates need to talk more additional research to address the failure of this article. The second word, thought and theory to practice from the perspective of floating interest rate differences are many and it is in dire need of specific performance criteria that must be designed and developed by techies. The third talk, especially infertility in some areas of implementation of the subject and perhaps this come disbelief of resistance to change and suggestions about the facilities and deposits has expressed.

Chang and Liu in 2009, in his article titled "Islamic banks: based on interest free or interest-related? Showed that Malaysia's Islamic banking differ much from the Western banking (non-Islamic). They are using "Angel Granger" and "Johansen" concluded that fewer of Islamic banks in Malaysia and losses are based on profit-sharing model. Islamic banks profit in the long run tends to favor non-Islamic banks. They stated that this result is also true for other Islamic countries such as Iran.

The impact of low interest rates on the economy

Hold down interest rates to control inflation excuse understand the issues and problems the economy which can be side effects of low interest rates and yields sectors of the economy than inflation summarized in the following cases:

1. Flowing non-return banking sources;
2. The increase in non-performing loans due to banks because of low interest rates to facilitate comparison with the unofficial market rate, despite the delay in repayment funds six percent penalty is not justified for customers;

3. Reduce sources of banking system deposits invested in a season and increase the velocity of money;

4. Increasing demand for facilities granted and not being able to meet all demands;

5. Justified latest designs with low return for the use of banking facilities;

6. inclined investors that the bank used their resources to capital-intensive projects rather than the issue of employment;

7. Strengthening and expanding unorganized monetary and financial markets and intermediaries (Such as companies);

8. Increasing debt to the Federal Reserve banking system;

9. The formation of corruption or bribery to obtain bank facilities;

10. Encourage current consumption and thus reduce re-savings;

11. Strengthen banks and financial institutions and the private credit and interest payments greater range of motion in obtaining them;

The impact of high interest rates on the economy

1. When the banks to deposit 30% of its profits, is expected to invest at least 36% of the owners of wealth to be gained traction. This, say the opportunity cost of money. In fact, ordinary traders and industrialists think to themselves if it is difficult to sustain production in the country and less than 36% of the profit, the better to entrust their money to the bank and take 30 percent tax does not either. Headaches Bank, Ministry of Labor, is in prison and so on and productive investment decreases.

2. The maximum rate of climb, commodity production is not able to produce such benefits to pay, only parts of Coin and Currency markets can do business and make acceptable profits. As a result, the value of the remaining investment is diverted towards these sectors. Section that creates fewer jobs per unit of capital they have added more fuel import.

3. It is natural that profit participation bonds should go up, which projects a government that deal with such expensive resources to achieve economic efficiency? If the buyer former securities, to sell and buy back bonds with new rates, which government can provide interest on these bonds? The current budget deficit should also be considered.

4. Due to increased production costs and expensive in cost per unit, to the detriment of our foreign competitiveness of domestic production changes result import demand will go up. This increased demand increases and currency exchange rate will increase as a result of the current recession and inflation will be higher.

5. The inflation of the channels mentioned is added, again under the pretext of increased interest

rates, and a spiral interest rates - inflation - interest rates, and we will begin a new cycle.

6. When inflation-adjusted interest rates to ask how we will avoid the pressure to reduce wages? What happened to the salary adjustment rate of manufacturing firms would be depressed? What is the budget? Spiral of inflation - wage inflation will occur? If the government does not allow wage adjustment means more poverty human capital and facilitate increased wealth does not owners? This is called justice? How sustainable growth?

Factors influencing interest rates on accounts of Islamic banking

1. Return

One of the most important factors in determining the amount of bank profits, return on investment was done. Usually people prefer current consumption to future consumption. So to encourage people to postpone current consumption should expect to earn rewards for their investments made, in fact, they expect an investment return or reward makes investors prefer current consumption to future consumption. Most of return on investment returns to introduce T in an asset during a period when it returns maintenance period say, it is used and price changes and cash flows of that asset investment during the period.

This suggests that the changes in percentage represent the percentage of the amount invested and the return on investment say. Financial rate of return is a very important factor in the decision to invest.

2. The supply and demand of investment:

One of the major factors in the Islamic massive investment of the profit rate is determined by supply and demand. As per the formula specified investment demand direct relationship with owners profit share funds as well as direct relation to the provisional profit expectations and investment relations with the government. On the other hand the supply of investment funds as well as indirect connection with profit share owners, but negatively related to the proportion of entrepreneurs benefit from a direct relationship with the accounts and expects profits.

$$ID_d = ID_p^d(p^+, \pi^+) + G_5$$

$$ID_s = ID_p^s(p^-, \pi^+, \delta^-)$$

ID_d = Investment demand

ID_s = Investment Focus

P = Owners profit share funds

Π = Provisional and expected profit

Δ = Entrepreneurs share of profit

G_5 = the ratio of government investment and endogenous

Current methods to determine the interest rate on interest-free banking

Interest-free banking law and its executive regulations, banks have to allocate and mobilization of

resources. According to Article 9 of the Regulations Act, interest-free banking in the second quarter, in relation to long-term investment deposits is as follows: "Investment banks term deposits that lawyers are adopting them as resources of depositors in the partnership, limited partnership, provided that the lease-purchase, installment sales, sharecropping, Mozaraeh, direct investment, trading inductors are used and presented".

Similarly, in Article 10 of the Regulations states that, in none of the deposits received term deposit investment as determined by the last digit will not be paid as dividends. The benefits of the operations referred to in Article 9 on the basis of contracts, legal guarantees between banks and depositors commensurate with the time and resources invested after deduction of deposits relevant law and respect of bank resources the duration and amount of total funds employed in this operation will be divided.

About the allocation of resources also avail the facility on the basis of interest-free banking laws and regulations, not fixed, according to a law of matter in the third quarter, "ending by banks, must be arranged according to forecasts, the original sources for this facility. Also, the expected profit is reversible in case of realization within the specified period. "But in practice it can be seen that although the facility is determined ceiling and floor, but the rate is fixed. Exactly the lending rate is fixed so that the depositors are paid a fixed percentage.

According to the above current interest rates (provisional and pending) in the country's banking system as a non-usury banking system is determined by the monetary authorities Credit Council, and the method for determining this rate is not based on specific criteria is mainly due to the rates of past years.

Due to the fixed interest rate and lack of flexibility through money market developments, the possibility of using it as a central objective of monetary policy has no place. Current practices is one of the basic tools of monetary policy in the central bank's interest rate does not have. Bank interest rates generally a big challenge for the economy, especially the banking system was. The main goal of the banking system, financial resource mobilization and allocation and distribution in different economic sectors and between economic actors was considered. The banking system in mobilizing financial resources and allocate it to operate more efficiently, we can see further expansion of production and employment, but in the case of non-performance of the banking system in the mobilization and allocation of funds, is loss of stagnation economic. Naturally funds from the deposits of the banking system are provided, one of the most important variables in the decision deposits

in the banking system, interest rates on deposits. The interest rate on bank deposits is increased, motivated people to increase savings in the banking system and reduce the interest rate bank deposits, deposit incentive will be reduced. The interest rate is a key variable in the mobilization of financial resources in the banking system.

On the other hand, the demand for funds in any economic activity due to the economic agents' expectations of profitability and efficiency of economic activity and the interest rate is determined. As interest rates rise, the demand for resources is reduced and the reduced interest rates, the demand for resources will increase. On the other hand it is evident that the demand for funds in each economic sector with more booms and so have profits and the expected return 'takes place, will be higher.

The key variable in the banking system for resource allocation and distribution of resources on the one hand and on the other hand, is interest rates. Determine the interest rate is one of the key variables of the economy and the relevance of this key variable with the national saving, investment, the ability to attract resources in the banking system, to facilitate the growth and development of various economic sectors and the prosperity and the economic downturn has caused determine interest rate in all countries of the world, especially in advanced economies (known as interest rate) is great. Interest rates should be determined in such a way that establish equilibrium in the money market, in the sense that on the one hand for savers, incentives to deposit money into the banking system retained and on the other bank facilities with low rates of funding is not provided to applicants that will be rationed and create rents and special opportunities. In fact, the equilibrium interest rate, the rate at which supply and demand to balance its finances. However, the interest rate determine the order of less than the balance on the one hand led to excess demand for funds and therefore it is rationed resources and thus create rents on the other hand, increasing the possibility of using resources in a project is economically unjustified that are necessary and appropriate returns, resulting in a waste of resources. Natural mechanism of supply and demand to determine the interest rate that economists are so important to the government from manipulating prices, in particular interest rates are avoided.

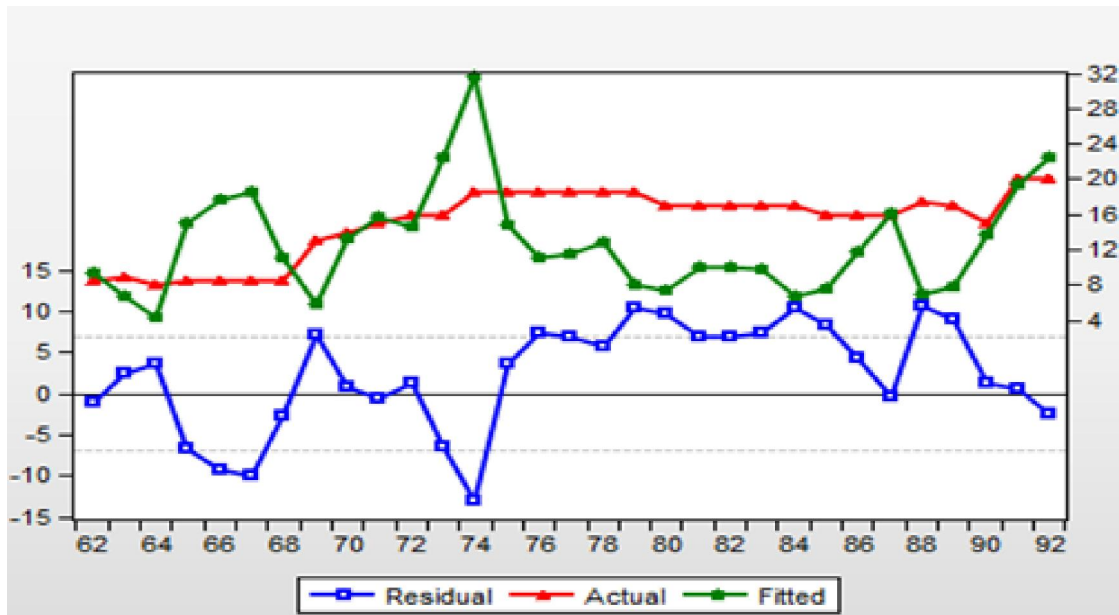
Determine the order of interest rates regardless of the inflation rate below the equilibrium rate, in economic theory to a phenomenon known as financial repression. In economic literature, the index of financial repression, extend holistic interest rate (interest) is a real negative. In most developing countries, government intervention and interest rate less than the equilibrium exchange rate, following the

allocation of financial resources was ignored. This intervention is generally done under the pretext of encouraging investment. Due to government intervention in the economy, the allocation of credit resources in the form of administrative instructions, leading to discrimination between economic sectors and inefficiency in the allocation of financial resources in the economy were important. On the contrary, it was argued that the removal of the ceiling interest rate and allocating financial resources based on supply and demand mechanism, increased savings and investment and economic growth.

With this introduction we want to know the relationship between long-term interest rate and the inflation rate in Iran and Islamic banking claiming to go to see if these two variables are related or other factors affected?

Statistical data and research methods

In this research, the annual interest rate on long-term deposits of commercial banks and the central bank's inflation rate from 1983-2013 were used. For this reason, we chose to start the year 1983 which coincided with Iran's Islamic banking law. First graph the relationship between interest rates and profits from 1983-2013, drawing its appearance see links.



Test Heteroskedactisity: If the variance is not constant errors squared errors and specific relationship between the explanatory variables (profit) occurs and in this case has the least variance estimator will not and formulas used to calculate the standard deviation should not be valid for this purpose, the white test our resolve.

First, we estimate the regression equation and then use the White test results can be seen by the following table:

Given the high probability of 5% of the variance in the data consistency is affirmed. Now the next step is to investigate the relationship between inflation and long-term investment income is needed to examine causality.

Causality: Now one of the most important topics in econometrics is the relationship between the two variables. In case there is a strong theoretical basis,

for example, here is whether inflation will increase interest rates or inflation caused by rising interest rates.

$$T_t = \sum_{i=1}^n \alpha_i S_{t-i} + \sum_{j=1}^n \beta_j T_{t-j} + u_t$$

$$S_t = \sum_{i=1}^m \alpha_i S_{t-i} + \sum_{j=1}^n \beta_j T_{t-j} + v_t$$

Based on the above equations can be then argued that:

1. If $\sum \alpha \neq 0$ and is $\sum \beta = 0$ is statistically significant, then the path from S to T, which means that inflation is an increase in bank profits.
2. If $\sum \alpha = 0$ and is $\sum \beta = 0$ is statistically significant, then the path from T to S is the increase of interest rate increases inflation.

Heteroskedasticity Test: White

F-statistic	1.674584	Prob. F(1,29)	0.2059
Obs*R-squared	1.692349	Prob. Chi-Square(1)	0.1933
Scaled explained SS	0.713743	Prob. Chi-Square(1)	0.3982

Test Equation:
 Dependent Variable: RESID^2
 Method: Least Squares
 Date: 12/07/13 Time: 05:20
 Sample: 1362 1392
 Included observations: 31

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	35.64348	11.17465	3.189674	0.0034
T^2	0.021433	0.016562	1.294057	0.2059
R-squared	0.054592	Mean dependent var		45.91295
Adjusted R-squared	0.021992	S.D. dependent var		44.29316
S.E. of regression	43.80342	Akaike info criterion		10.45964
Sum squared resid	55643.44	Schwarz criterion		10.55216
Log likelihood	-160.1244	Hannan-Quinn criter.		10.48980
F-statistic	1.674584	Durbin-Watson stat		1.511100
Prob(F-statistic)	0.205857			

Pairwise Granger Causality Tests

Date: 12/07/13 Time: 05:59

Sample: 1362 1392

Lags: 6

Null Hypothesis:	Obs	F-Statistic	Prob.
SUD does not Granger Cause T	25	5.05034	0.0084
T does not Granger Cause SUD		0.89546	0.5283

In this test due to an interruption 6 of the result of this is that interest rates are tied to inflation. The result is increased with rising inflation and interest rates on bank policy are important.

Conclusion:

1. The interest rate will be determined in any economy due to inflation. Because market participants lend their money only if the rate at which it receives more than the rate of inflation. Otherwise prefer to put their money in commodities or commodity driven inflation preserves the value of money such as gold and foreign currency investments.

So interest rates or interest in any economy is several percentage points higher than the rate of inflation. But in countries where central banks direct investment in money and capital market rates are involved, this equation is often not well established and sometimes higher than the official rate of inflation will be of interest and dividends. This of course makes the capital rather than official channels and more

informal and underground duct banks to move more. That is why in informal markets of these countries; often several times the rate of interest, even the official rate of interest, also appears.

So if we want to reduce the interest rate in the country, is needed to bring inflation down. Not to low inflation, low interest rate command only lead to capital flight from the official market.

2. If real interest rate, which is obtained from subtracting the inflation rate from the interest rates are negative in most years, this means that their purchasing power will decline over time depositor and recipient facility's purchasing power gain, the bank again. In economic literature, this situation is due to government intervention in the financial market financial repression.

Financial repression leads to complications such as the following:

- Reduce the incentive to deposit in the bank and banks reduce lending resources

- Create an unorganized market wide currency in the official market money
- Strengthen the speculative activities in other markets.
- Corruption in the banking network
- Transfer of purchasing power from depositors to loan recipients.

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