The Effect of Financial Repression on the Profitability of Banks in Iran: GMM-SYS Approach

Mohammad Abdi Seyyedkolaee
Assistant Professor of Economics, University of Mazandaran, Babolsar, Iran
m.abdi.sk@umz.ac.ir

Extended Abstract

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Introduction
In today's complex world, the financial system plays an important role in the stable, economic growth and development of countries. The main task of the financial system is to equip resources and allocate them optimally to support production sectors and expand welfare and economic development.

Banks make money through providing banking services to customers, which attracts people's deposits at low interest rates and provides facilities at higher interest rates. The difference between the two rates is the bank's income, which is called the profit margin. The profitability of banks is influenced by controllable internal factors of bank's management and economic conditions prevailing environmental factors in countries.

Financial repression is a set of formal policies, laws and regulations and informal controls imposed by governments on financial sectors that deviate financial sector prices (interest rates and exchange rates) from its equilibrium values, and it prevents financial institutions from operating their maximum capacity. Financial repression directly and indirectly affects the activities of banks. First, financial repression has reduced the deposits of economic agents in banks and has a negative effect on banks' incomes by reducing banks' lending capacity. Second, as capital accumulation decreases, and consequently, economic growth reduction, banks' income from lending facilities decreases.

Objective
Investigating the state of Iran's financial system shows that in recent decades, Iran's economy has been heavily involved in the phenomenon of financial repression, especially in the years since the government took control of national banks and insurance companies.
Given that most studies have examined the impact of financial repression on economic growth and development, in this study we seek to answer the question whether financial repression has a negative and significant effect on the profitability of banks in Iran.

**Data/Methodology**

In this study, the effect of financial repression on the profitability of 30 selected banks (public and private) in Iran and using monthly data for the years 2011-2017 is investigated. The specification of the research model is as follows:

$$ PM_{it} = \beta_0 + \beta_1 PM_{it-1} + \beta_2 IFR_{it} + \beta_3 LtoTA_{it} + \beta_4 Size_{it} + \beta_5 Size_{it}^2 + \epsilon_t $$

Where, PM, the bank's profit margin; IFR, financial repression index; LtoTA, composition of assets; and Size is the size of the bank.

In this study, to calculate the profit margin, the formula, total assets / profit before tax = profit margin, has been used (Bashir, 2003). The legal reserve rate and the real interest rate were considered as indicators of financial repression. Also, the ratio of loans to total bank assets has been used as a variable of asset composition. In addition, the natural logarithm of assets was used as a variable of bank size.

A System Generalized Method of Moments (SYS-GMM) approach has been used to estimate the model and tested the hypothesis. In the Generalized Method of Moments (GMM), the lag of the dependent variable was inserted as an independent variable to the right of the equation. The endogenous problem would not be neglected if conventional single-equation methods (such as Ordinary Least Squares (OLS) regression) were used to test the research hypothesis. Therefore, using GMM-SYS method solves this problem (Faria, et al; 2014).

**Results/Findings**

The results show that financial repression adversely affects banks' profit margin. Therefore, banks' profit margin is reduced to 0.02 units by increasing one indicator unit for financial repression. The results showed that financial repression reduces the grant power of banks' facilities, by reducing the deposit of economic agents. In addition, increasing financial repression reduces economic growth, which in turn changes the decisions of economic agents regarding consumption and savings. As a result, it indirectly reduces banks' income from granting facilities.

The considered auxiliary variables also have a significant effect on banks' profit margins. Thus, the composition of assets and the size of banks have a positive and negative effect on the dependent variable. Based on the results of Sargan test, the instrumental variables used in model estimation have the necessary validity. That is, the null hypothesis is that the equation is definite but is not rejected. In other words, there is no connection between the error components and the tools used.

Finally, the statistics shows that the significance of coefficient model is zero at the same time that the hypothesis is rejected.

**Implications**

Given the harmful effects of financial repression on the profitability of banks, it is recommended that the government be very careful in determining policies, especially macroeconomic policies,
and avoids adopting hasty and unprofessional policies. The reason is that these policies have harmful and irreparable consequences for Iran's commercial banks.

Since the results of the study indicate a positive and significant relationship between the percentage of loans to total assets and profitability of banks, those involved in the banking industry are advised to pay attention to the importance of deposits and proper management. They should also pay enough attention to providing appropriate facilities and their optimal management.

**Keywords:** Financial Repression, Profitability of Banks, Iran's Economy, GMM-SYS.