



**AgEcon** SEARCH  
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

*The World's Largest Open Access Agricultural & Applied Economics Digital Library*

**This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.**

**Help ensure our sustainability.**

Give to AgEcon Search

AgEcon Search

<http://ageconsearch.umn.edu>

[aesearch@umn.edu](mailto:aesearch@umn.edu)

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*



# Investigating the Effects of Financial Repression on Private Investment in Agriculture Sector

Abdolmajid Jalae<sup>1</sup>, Sima Shafei<sup>2\*</sup> and Mina Javadinia<sup>3</sup>

Received: 7 May 2014,  
Accepted: 17 August 2014

## Abstract

One of the present phenomena that virtually explain weaknesses in financial systems of different countries is financial repression. Financial repression encompasses the different interferences of governments in financial markets through determining the ceiling interest on bank deposits, high rates of legal reserves, and the government's interference in distribution of bank credits, which prevents the efficient performance of financial market for better allocating resources and funds. On the other hand, investment in agricultural sector enjoys a significant importance due to the growth of production and employment in this sector and rooting for the same notions in other economic sectors. Regarding the fact that the subject matter of the current paper is of utmost importance, it tries to investigate the impacts of financial repression on investments in agricultural sector. In order to realize this objective, measures such as the size of the government in economy, the measure for financial intermediation of banks, and the ratio of savings to GDP (Gross Domestic Product) were utilized as the factors for financial repression. The regression results of ARDL showed that the effects from the measures of government size in economy and financial intermediation of banks had a negative and significant impact on private investment in agricultural sector. This means that the bigger the size of government in economy the less the willingness of the private sector for investing in agriculture. Moreover, regarding the fact that the majority of banks in Iran are governmental, the measure for financial intermediation of banks had a negative and significant impact on private investment of agricultural sector.

**Keywords:**

*Financial repression, Private investment, Interest rate, Government size*

<sup>1</sup> Assistant Professor of Economy, Shahid Bahonar University of Kerman.

<sup>2</sup> MA Student of Agricultural Economy, Shahid Bahonar University of Kerman.

<sup>3</sup> MA Student of Economy, Shahid Bahonar University of Kerman.

\* Corresponding author's email: [SimaShafei@gmail.com](mailto:SimaShafei@gmail.com)

## INTRODUCTION

Investment is one of the most prominent factors in economic growth and development in any country and the most important criterion for determining and measuring the economic development is the growth of gross domestic product and the main driving force behind production. Hence, economists have always found themselves obligated to investigate those conditions in which economic factors lead to saving or investment in any place and in any time. Among different investments in distinct economic sectors, investment in agricultural sector possesses a special prominence and position since investment in agricultural sector not only induce the growth of production and employment in this very sector, it also encourages production and employment growth in other economic sectors and henceforth identifying effective factors on investment in agricultural sector and adopting suitable policies for increasing investment, possesses a supreme prominence (Chabokrou and Jekar, 2007). In Iran, the notions of finance and investment have always been facing several difficulties due to deep independence to oil revenues and instability of its price as well as the high risk involves around it; and for this very reason, investing in different sectors, including agriculture, has always experienced severe fluctuations (Shakeri and Mosavi, 2003).

One of the phenomena which properly explain the weaknesses of financial system in different countries is financial repression. The history of financial repression goes back to the years of World War II when governments took the responsibility of allocating financial resources and credits. The seminal theoretical notions on liberating the financial markets and its role in efficient allocation of funds and higher economic development were put forth by McKinnon and Shaw in 1913. This had a huge impact on academic debates regarding the interference of governments in financial markets under the term financial repression (Jalae and Moayeri, 2012) and after that the repressed financial system was the dominant attitude and policy during the 1950s. These policies which were executed in order to encounter the factors for market failure and bridging the gap in investment and saving as well as improving the economic growth, were faced with doubt due to the advent of adverse

consequences in the 1970s and many countries started correcting their financial structure in 1980 whose result was some alterations in banking system. Financial repression encompasses different interferences of governments in financial markets through determining the ceiling interest on bank deposits, high rates of legal reserves, and the government's interference in distribution of bank credits, which prevents the efficient performance of financial market for better allocating resources and funds (Komeijani and Pourrostami, 2008).

Regarding the importance of financial repression in developing countries, the main question which the current paper tries to answer is that "what is the effect of financial depression on private investment in the agricultural sector of Iran?" in order to provide an appropriate answer to this question the framework of the study is set up in a way that after introduction in section two it reviews the previous literature. In section three, the model specifications and in the fourth section, model estimations are presented. Finally in the last section of the current paper the general findings and recommendations are presented.

Naghavi and Eraghi (2005) evaluated the effective factors on financial repression in Iranian economy and concluded that among such factors as under-development of money and finance market, undesirable performance of privatization, institutional inefficiency, rent-seeking, dependency of economy on oil, economic pressure and lack of financial discipline, the most effective factor for encouraging government for executing financial repression policies is the dependency of Iranian economy on oil. Moraseli and Darvishi (2008) in a study investigated financial repression and economic growth in Iran during the period between 1968 and 2006. Their results showed that financial repression in Iranian economy did not have a significant impact on economic growth but its effect on economic efficiency had been negative and significant. Komeijani and Pourrostami (2008) in a study investigated the impact of financial repression on economic growth in low-developed and novel economies. In this study the different forms of financial repression regarding the rate of real interest had been created and using comparative data, their effects on the eco-

economic growth of 92 countries were evaluated during the time extent between 1985 and 2005. The results of the study showed the negative and significant impact of negative real interest rates on the economic growth of different countries. [Jalae and Moayeri \(2012\)](#) in a study investigated the effects of financial repression on green production in Iran. The model they used for evaluating the effects of financial repression on green production was the Solow growth model. Moreover, they also considered the measure of government size in economy, the measure for the banks financial intermediation, the ratio of savings to GDP and the difference between official exchange rates and unofficial exchange rates as the factors of financial repression. The results showed that the impact of financial repression on green production based on the hypothesis was negative. [Mansouri et al., \(2013\)](#) in a study evaluated the impact of financial repression on the economic growth of agricultural sector using Gregory-Hansen co-integration test and dynamic ordinary least squares (DOLS) methods. The data used in this study included agricultural gross domestic product growth, the non-productive costs of the government, financial repression criteria, political instability measure and human resources for the time period between 1962 and 2007. The results of the study showed that controlling precautionary saving rates as the criterion for financial repression, had a negative impact on the economic growth of the agricultural sector. [Raju \(1999\)](#), in a study investigated the concept of financial repression and the estimation of government revenues from irregular taxes for India from 1971 to 1998. In this study, it is also mentioned that financial repression affects savings and investments as well as economic growth rate. The results showed that financial repression from 1995 to 1998 had not helped the economic growth while this variable showed a positive effect on economic growth for 1971 to 1998. [Kendal \(2000\)](#), by studying the relationship between interest rate and savings with the economic growth in Guyana, confirms MacKinnon-Shaw theory for this country and recommends financial repression policy as well as intelligent efforts directed at maintaining infrastructure and the better performance of economy along with using high-end technologies for

the growth of financial performance. [Sikdar \(2008\)](#) investigated the positive relationship between financial development and economic growth and productivity in Bangladesh. The results of this study showed that financial repression held a negative relationship with economic growth and productivity while financial development had a positive relationship with economic growth and productivity. The evidence in this study showed that the effects of financial repression and financial development for Bangladesh when the economic growth of Japan was high became positive but this scenario was totally different for Latin American countries. [Adriana et al., \(2009\)](#) in a study experimentally investigated the impact of financial repression on published interest rates in Venezuela and also measured financial repression. These authors considered a measure for obtaining the opportunity costs of regulatory restrictions on banking performance such as reserve requirements, mandatory lending programs, and the tax costs of financial transactions. Based on the results obtained from panel data regression analysis it was concluded that there was a positive relationship between financial repression measure and interest rate. [Ang \(2009\)](#) in a study investigated the effective factors on private consumption fluctuations in India. While there is a deep effort for the relationship between growth and fluctuation, in this study the author deals with the subject of financial repression and private consumption fluctuations using time series data. The results showed that enforcing financial repression policies has a close relationship with the lower consumption fluctuations in India. Moreover, the presence of a partial effect showed that benefits of financial liberation could be repeated in consumption fluctuation dumping provided that the liberation would be a complete process in India. [Godard \(2010\)](#) by investigating the effects of financial repression on economic growth in China found that there is no negative relationship between financial repression and economic growth. In fact, the main reason behind financial repression in China is the government's access to easy revenue so that the Chinese have a high-level economy and implement the policies of devaluing domestic currency and maintaining its capability

for competition in order to encourage exports and economic growth. Rinehart *et al.*, (2011) in a study showed that periods of high debt during history are accompanied by higher occurrence of failure to pay debts or private and governmental debt restructuring. Sometimes debt restructuring is exact and takes the form of financial repression. Moreover, in this study it is mentioned that in financial markets based upon the Bretton Woods System, there exists a limitation that causes a severe reduction in the ratio of debt to gross domestic product in the late 1940 to 1970. This study also mentions that the resurgence of financial repression in the financial crisis of 2007-2009 is accompanied by an increase in general debts of developed economies. Kim (2012) in a study investigates financial repression in housing investments of South Korea. South Korea has a unique kind of renting contract called the “jeonse system”. The tenant pays a certain sum of money which is usually 40 to 70 percent of the property value to the landlord and the landlord pays back the sum after the termination of the contract. The main objective of the above-mentioned study was to show that jeonse is an ingenious market response under financial repression which allows the landlord to acquire the required financial resources for investing in housing sector without relying on bank loans. Moreover, the proposed model in this study states that when the jeonse system is used, the arbitrage interest is removed from investment. Karbasi and Naghavi (2013) in a study investigated the impact of financial repression on the growth of agricultural sector in Iran using time series data during the time extent between 1978 and 2008. The results showed the negative impact of financial repression on agricultural growth.

### Model Specifications

The effective factors on investment in this study are considered based on neoclassic model with some alterations which is designed for developing countries. Moreover, the fundamental assumption of this model is that entities minimize their costs with regards to the production term in production function relative to the output flow of work force and financial services (Jorgensen, 1967). These entities earn their

funds through the revenues obtained from financial goods. Demand for investment, is a derived demand. Based on the Cobb-Douglas production function, desired capital stock, positive derivative with respect to the planned output ( $Y^e$ ) and negative derivative with respect to expected costs associated with capital ( $C$ ), it is:

$$K_t^* = \alpha Y_t^e C_t^{-1} \quad (1)$$

Where “ $\alpha$ ” is the distribution parameter, Investment cost comprises three parts and as it is mentioned in equation (2), the first part is the interest rate which is the opportunity cost of those entities which sell their financial goods and expand their practices. This part is measured by prices of capital goods production ( $Pk_t$ ) and nominal bank lending rate. The second part is the depreciation of capital goods which is measured by  $dPk_t$  in which  $d$  is the depreciation rate. The last part of the increase / decrease in assets results from expected changes in the prices of capital goods  $\Delta Pk_t = \pi_t^e Pk_t$  in which  $\pi_t^e$  is the expected rate of change in prices of capital goods, all of which is decreased by the overall prices in real terms:

$$C_t = Pk_t \frac{r + \delta - \pi_t^e}{P} \quad (2)$$

Gross investment is defined as:

$$I_t = \Delta K_t + \delta K_{(t-1)} \quad (3)$$

Gross investment is comprised of net investment and substituting components. The first part includes the changes in investment stock while the second part is the inventory of available capital for the previous term and this shows that real capital stock in the short run cannot reach the level of desired capital. Accordingly, the function for private investment in agricultural sector can be specified as follows:

$$LPI_t = f(LGI, LVA, LWPA, LMP, R, DU) \quad (4)$$

In which private investment in agricultural sector ( $LPI$ ) is a function of governmental investment in agricultural sector ( $LGI$ ), credits granted to the agricultural sector ( $LMP$ ), agricultural section's added-value ( $LVA$ ), measure of agricultural products wholesale ( $LWPA$ ), financial repression factors ( $R$ ) and the dummy variable for war years ( $DU$ ). The above-mentioned variables are considered

logarithmic.

In order to calculate the financial repression factors, the following measures were used:

**The ratio G/GDP:** this measure indicates the size of the government in economy. The bigger the value of this measure the more interference of the government in economy and the higher the budget for governmental sector. Regarding the enforcement of development programs before and after the Iranian revolution and increasing the role of government in economy and in turn the increase in national demands on one hand and tax system inefficiency and oil revenue fluctuations on the other hand, government is faced with subsequent budget deficiency and in order to compensate these problems, the government has to enforce a set of financial repression policies through selling government bonds to banks and mandating their preservation, creating governmental banks and prescribed allocation of bank credits, prescribed determination of interest rates on deposits and bank loans and increasing the rate of legal reserves.

**The measure  $M_1$ /GDP:** this measure indicates the size of official financial intermediation to economic activities in a banking system. It is usually supposed that the size of financial intermediation has a positive relationship with the financial services rendered; in other words, the bigger the size of financial intermediation, the broader the supply of financial services.

**Ratio  $(M_2-M_1)$ /GDP:** this measure indicates the ratio of savings (quasi monetary) to income in economy and also indicates the ability of the banks for lending to the private sector.

## RESULTS AND DISCUSSION

### Auto Regression Econometric Time Series Model with Extensive Interruptions (ARDL)

Econometric modeling using time series in a usual and traditional manner is based upon the assumption of fixed variables of time series. Investigating the state of fixed data prevents the estimation of false regressions and improper decision-making based on false regressions. Hence, in the first stage the structure of the utilized data should be evaluated regarding their fixed state. In order to test for the fixed variables, the Augmented Dickey – Fuller test (ADF) is used. The results for Dickey – Fuller test for the model variables are presented in Table 1.

Based on the above table the logarithmic variable of private investment in agricultural sector and the measure for the ratio of savings to income are in a stable level and other variables of the model are stable in the first order difference.

### Dynamic Pattern Estimation

Neglecting to consider short-run dynamic reactions among the variables leads to biased estimations which in turn leads to the fact that testing hypotheses using usual statistical tests such as the t-test will not be valid. Hence, using patterns containing short-run dynamics which lead to more accurate estimations of the pattern are considered. ARDL pattern is a method which considers the short-run dynamics among the variables and estimates the long-run relationships as well. In this pattern first the dynamic model, then the long-run relation and error correcting pattern are fitted. The results for estimating the dynamic pattern of private investment model in agricultural sector are presented

Table 1: The Results for Variable Stability

Variable	Calculated ADF Statistic	ADF Statistic in 99% Level	ADF Statistic in 95% Level	ADF Statistic in 90% Level	Stability Status
LPI	-4.308	-3.646	-2.954	-2.615	I(0)
LGI	-5.369	-3.661	-2.960	-2.619	I(1)
LMP	-3.352	-3.670	-2.963	-2.621	I(1)
LWPA	-3.371	-3.653	-2.957	-2.617	I(1)
LIV	-7.372	-3.653	-2.957	-2.617	I(1)
G/GDP	-5.209	-3.653	-2.957	-2.617	I(1)
M1/GDP	-3.329	-3.661	-2.960	-2.619	I(1)
$(M_2-M_1)$ /GDP	-10.389	-4.309	-3.574	-3.221	I(0)

Source: Research calculations

Table 2: Estimating the Dynamic Pattern of the First Model ARDL (1,0,0,0,0,0,1)

Explanatory Variable	Coefficient	t statistic	p-value
LPI(-1)	0.344	2.010	0.056
LIG	-0.144	-1.98	0.075
LMP	0.290	1.272	0.216
LWPA	-0.962	-2.719	0.012
LIV	1.442	1.108	0.279
G/GDP	-4.965	-2.303	0.038
DU	0.512	1.000	0.327
DU(-1)	-1.232	-2.503	0.020
C	-9.908	-0.768	0.450
	R <sup>2</sup> =69.82	D.W=2.22	

in the following tables (2, 3, 4).

Based on the calculated estimations, the logarithmic variables of governmental investment in agricultural sector and the variable for the measure of wholesale price of agricultural products have a negative and significant impact on private investment in agricultural sector. The logarithmic variables of credits granted to the agricultural sector and the added-value logarithm of agricultural sector have a positive and significant impact on private investment in agricultural sector. The measure for the size of the government and the measure for the intermediation of banks have a negative and significant impact on private investment in agricultural sector. Moreover, the measure of the ratio of sav-

ings to income has a positive and significant impact on private investment in agricultural sector. Statistic related to R<sup>2</sup>, t and Durbin Watson indicate the proper specification of the model.

#### Estimating the Long-Run Pattern

Among the advantages of estimating the dynamic pattern is that we can test for the presence of a long-run equilibrium relation. Based on the method of Banerjee et al, the prerequisite for a dynamic pattern to tend towards long-run equilibrium is that the sum of coefficients with variable interruption be less than one. In order to carry out this test and calculate the statistic we should subtract one from the sum of coefficients with dependent variable interruption and divide

Table 3: Estimating the Dynamic Pattern of the Second Model ARDL (1,0,0,2,1,2,2)

Explanatory Variable	Coefficient	t Statistic	p-value
LPI(-1)	0.237	1.928	0.071
LIG	-0.527	-2.698	0.015
LMP	0.019	1.723	0.091
LWPA	-1.763	-3.123	0.006
LWPA(-1)	2.912	3.330	0.004
LWPA(-2)	-1.903	-2.998	0.008
LIV	2.915	2.620	0.018
LIV(-1)	3.693	3.227	0.005
M1/GDP	-0.825	-1.664	0.114
M1/GDP(-1)	-5.291	-4.104	0.001
M1/GDP(-2)	5.243	3.823	0.001
DU	2.004	6.572	0.000
DU(-1)	-0.251	0.777	0.447
DU(-2)	-0.447	-2.213	0.041
C	-61.883	-5.564	0.000
	R <sup>2</sup> =89.82	D.W=1.94	

Table 4: Estimating the Dynamic Pattern of the Second Model ARDL (1,0,0,2,2,2,2)

Explanatory Variable	Coefficient	t Statistic	p-value
LPI(-1)	0.342	3.039	0.008
LGI	-0.469	-2.653	0.017
LMP	0.034	1.573	0.083
LWPA	-1.693	-3.181	0.006
LWPA(-1)	2.533	3.160	0.006
LWPA(-2)	-1.959	-3.351	0.004
LIV	5.215	4.672	0.000
LIV(-1)	0.067	1.698	0.094
LIV(-2)	1.828	2.181	0.044
(M2-M1)/GDP	0.321	2.457	0.026
(M2-M1)/GDP(-1)	-6.079	-4.683	0.000
(M2-M1)/GDP(-2)	6.649	4.487	0.000
DU	1.799	6.631	
DU(-1)	-0.279	-0.920	0.000
DU(-2)	-0.604	-3.251	0.371
C	-66.077	-5.892	0.005
	R <sup>2</sup> =91.83	D.W=2.61	0.000

it by the sum of standard deviations. Should the absolute value of t statistic be larger than the absolute critical value,  $H_0$  is rejected and the presence of long-run relation is confirmed. The above-mentioned statistic for the first model is 3.83, for the second model is 6.20 and for the third model is 5.82. Hence the presence of the

co-integration relationship is confirmed. The results for the long-run equilibrium pattern are reported in following tables (5, 6, 7).

Based on the calculated estimations, governmental investment and the measure for the wholesale price of agricultural products have a negative impact on long-run private investment

Table 5: Estimating the Long-Run Pattern for the First Model

Variable	Coefficient	t - Statistic	p-value
LGI	-0.691	-2.499	0.023
LMP	0.0255	1.699	0.091
LWPA	-0.988	-2.684	0.016
LIV	8.662	5.957	0.000
G/GDP	-1.145	-2.136	0.048
C	1.712	4.221	0.001
	-81.106	-5.885	0.000

Table 6: Estimating the Long-Run Pattern for the Second Model

Variable	Coefficient	t Statistic	p-value
LGI	-0.691	-2.499	0.023
LMP	0.0255	1.699	0.091
LWPA	-0.988	-2.684	0.016
LIV	8.662	5.957	0.000
M1/GDP	-1.145	-2.136	0.048
DU	1.712	4.221	0.001
C	-81.106	-5.885	0.000



Table 7: Estimating the Long-Run Pattern for the Third Model

Variable	Coefficient	t Statistic	p-value
LGI	-0.714	-2.356	0.032
LMP	0.0524	1.756	0.084
LWPA	-1.702	-3.384	0.004
LIV	10.812	5.677	0.000
(M2-M1)/GDP	1.355	2.840	0.012
DU	1.392	3.425	0.003
C	-101.529	-5.610	0.000

Table 8: Estimating the Error Correction Pattern for the First Model

Variable	Coefficient	t Statistic	p-value
dLGI	-0.144	-1.98	0.078
dLMP	0.290	1.272	0.215
dLWPA	-0.962	-2.719	0.012
dLIV	1.442	1.108	0.279
dG/GDP	-4.965	-2.303	0.039
DU	0.512	1.000	0.327
Dc	-9.907	-0.768	0.450
Ecm(-1)	-0.615	-3.220	0.004

in agricultural sector. However, it was expected that private and governmental investments interact as a complimentary pair, but the results for long-run estimations show a compulsive substitution among these two. One of the main reasons behind the high price of agricultural products can be considered as the increase in institutional and production costs in agricultural sector and the increase in agricultural products' prices is relatively lower than the increase in costs which in turn demote the motivation to enter into and invest in this sector. The variable of credits granted to agricultural sector and the value-added variable in agricultural sector have a positive and significant long-run impact on investment in agricultural sector. As expected, the granted credits remove the financial limitations and are the most prominent driving force behind private investment in agricultural sector. Financial repression factors such as the measure for the size of government in economy have a negative and significant long-run impact on private investment in agricultural sector. The higher the government's costs, the higher the total consumption and this fact ultimately leads to a higher government investment which in turn

leads to a decrease in private investment. Moreover, the measure for the ratio of savings to incomes has a positive and significant long-run impact on private investment in agricultural sector which is expected. Regarding the fact that the bulk of banks in Iran are governmental and are limited in servicing the agricultural sector as well as delays in farmers' loan payments, the measure for the financial intermediation of banks has a negative and significant long-run impact on private investment in agricultural sector.

#### Estimating the pattern for Error Correction

The presence of co-integration among a set of economic variables provides a statistical base for using the error correction pattern. The main reason behind the popularity of these patterns is that they connect the short-run fluctuations of variables with the long-run equilibrium values. Estimating the error correction pattern is reported in following tables (8, 9, 10).

Based on these estimations in short-run the variables of governmental investment in agricultural sector and the measure for the wholesale price of agricultural products have a negative and significant impact on private in-

Table 9: Estimating the Error Correction Pattern for the Second Model

Variable	Coefficient	t Statistic	p-value
dLGI	-0.527	-2.698	0.013
dLMP	0.019	1.723	0.091
dLWPA	-1.763	-3.123	0.005
dWPA1	1.903	2.998	0.007
dLVA	2.915	2.620	0.016
dM1/GDP	-0.825	-1.664	0.111
dM1/GDP1	-5.243	-3.823	0.001
dDU	2.003	6.572	0.000
dDU1	0.447	2.213	0.038
Dc	-61.883	-5.564	0.000
Ecm(-1)	-0.763	-6.209	0.000

vestment in agricultural sector. The logarithmic variables of granted credits to agricultural sector and value-added of agricultural sector have a positive and significant impact on private investment in agricultural sector. The measure of government size in economy and the measure for financial intermediation of banks have a negative and significant impact on private investment in agricultural sector. Moreover, the measure for the ratio of savings to incomes has a positive and significant impact on private investment in agricultural sector. Comparing the impact of variables in short-run and long-run indicates that explanatory variables in short-run and long-run have the same coordinated impact on private investment in agricultural sector. An important parameter in error correction pattern is the error correction coefficient which shows the trend of adjusting the incoming shocks in short run towards the equilibrium inclination in

long-run. In calculated estimations, this coefficient for the first model is -0.615, for the second model it is -0.763 and for the third model it is -0.657 which have the expected minus (-) sign. This notion indicates that in each time period for the first model 69.3 percent, for the second model 76.3 percent and for the third model 65.7 percent of incoming short-run shocks are adjusted towards the long-run equilibrium values.

### CONCLUSIONS

In the current study, using the co-integration ARDL method, the impacts of effective factors on private investment in agricultural sector have been investigated. In a nutshell the general conclusions and recommendations can be presented as follows. The results show a compulsory substitution between governmental and private investments. But according to the importance of agricultural sector in food security, policy mak-

Table 10: Estimating the Error Correction Pattern for the Third Model

Variable	Coefficient	t Statistic	p-value
dLGI	-0.469	-2.653	0.015
dLMP	0.034	1.753	0.081
dLWPA	-1.693	-3.181	0.005
dWPA1	1.959	3.351	0.003
dLVA	5.215	4.672	0.000
dLVA1	-1.828	-2.181	0.041
(M2-M2)/GDP	0.321	2.457	0.023
(M2-M2)/GDP1	-6.649	-4.487	0.000
dDU	1.799	6.631	0.000
dDU1	0.604	3.251	0.004
Dc	-66.777	-5.892	0.000
Ecm(-1)	0.657	-5.841	0.000

ing regarding the investment of government in agricultural sector needs more attention. The positive effect of granted credits in the short and long-run shows that removing the financial limitations, increases the motivation for private investment in agricultural sector. Hence, it is recommended that by granting financial credits clear the way for attracting technology and financial investment in this sector. Regarding the fact that the impact of the measure for the wholesale prices of agricultural products on private investment in agricultural section is negative, it is recommended to design appropriate pricing policies based upon the production costs so that we can create a motivating incentive for entering into and investing in this sector. Since the results show a negative impact for the financial intermediation of banks, it is recommended that granting credits to the agricultural sector be carried out by the cooperative companies which are more trustworthy and less limited than the banks. Moreover, regarding the negative impact of the measure for the size of government in economy and governmental investment on private investment in agricultural sector, it is recommended that government is better to refrain from production activities and spend the credits in infrastructure constructions including water and soil-related activities.

### REFERENCES

- 1- Chabokrou, G., & Farahani Jokar, L. (2007). Adjustment Costs and Investment in the Agricultural Sector; *Agricultural Economy Periodical*.
- 2- Jalae, A., & Moayeri, F. (2012). Investigating the Effects of Financial Repression on Green Production in Iran; *The Second National Conference on Economic Development Strategies Based on Regional Planning*.
- 3- Komeijani, A., & Pourrostami, N. (2008). The Impact of Financial Repression on Economic Growth (Comparing Low-Developed and Novel Economies); *Iranian Economic Researches Periodical*, 12: 39-59
- 4- Mansouri, S., Samadi, A., & Torkmani, J. (2013). Investigating the Effects of Financial Repression on Economic Growth in Agricultural Sector, Case Study: Iran ; *Economic Researches Periodical*, 2: 151-173
- 5- Moraseli, A., & Darvishi, B. (2008). Financial Repression and Economic Growth: Experimental Evi-

dence in Iranian Economy; *Economic Research Journal*, 8: 175-195.

- 6- Shakeri, A., & Mousavi, M.H. (2003). Investigating the Effective Factors on Private and Governmental Investment in Agricultural Sector; *Agricultural Economy and Development Periodical*, 44: 91-103
- 7- Taghavi, M., & Khalili Eraghi, M. (2005). Effective Factors on Financial Repression and the Hierarchy of Their Effects on Iranian Economy Using Group Decision-Making Models; *Economic Research Periodical of Iran*, 22: 63-82.