

## Analysis of financial markets and investment development strategies in agricultural sector of Kohgiluyeh and Boyer-Ahmad Province of Iran

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### Abstract

In order to achieve the economic growth and development, some specific plans and mechanisms in social, cultural and economic fields are required. Strong financial markets are among such specific mechanisms in the economic area which in turn requires powerful financial institutions. In this research, abilities and restrictions of financial system of Kohgiluyeh & Boyer-Ahmad province of Iran have been reviewed and discussed that the substantial proportion of required agricultural credits of province farmers is provided by the formal sector of financial market, especially Agricultural Bank of Iran. The interest rate of formal sector credits is much less than the rates of interest applied in the informal sector even by enumerating administrative costs. Finally, the financial market development strategies of agricultural sector of the province have been determined.

**Keywords:** Financial Market, Broker, Capital, Agriculture, Facilities, Bank, Iran.

### Introduction

The effects of financial development on economic growth have been widely discussed in scientific investigations. The findings of such studies indicate that financial markets in developing countries have effects on economic growth through capital accumulation and in developed economies financial development leads to productivity growth. Shiva (2000) confirmed the influence of improvement in financial markets performance on economic growth in the context of exogenous and endogenous growth models in Iran. The findings of his study indicated that both stock market and banking system have significant impacts on economic growth. Philip *et al.* (2001) reported the relation between financial market and economic growth which is strong in France, Germany and Japan but is weak in the U.S. and UK. According to them, the banking system has more impact on economic growth. Development of financial markets is one of the keys to achieve long-term growth of the economy. Financial markets can lead to economic growth if it could collect the savings from various private sources and inject them to generative and productive investments and facilitate exchange of goods and services (Nazifi, 2004). The financial markets can lead to economic growth if it could provide appropriate grounds for optimal allocation of resources and cause increase of capital efficiency (Levine *et al.*, 2000). One of the most important factors affecting the development of financial markets and their efficiency is to diversify financial instruments. To achieve this goal, various financial instruments should be designed. Goldsmith (1969) and Shaw (1973) observed a close relationship between financial market development and economic growth in a number of countries. Of course, they did not specify the direction of causal relationship between two

variables. King and Levine (1993) by studying 119 developing and developed countries during 1960-1989 concluded that the symbols of financial market development significantly predict growth symbols. In the other hand Robinson (1952) believed that financial brokers are the only channels to direct households' savings towards investment activities and the main factors should be sought in capital stock and investment rates. However, most empirical studies conducted in this field have obtained positive relationship between financial development and economic growth. Koupahi *et al.* (2004) showed that in general the impact of financial markets on the growth of the agricultural sector is positive. In other words, development of country's financial structure plays an important role in increasing the value added of agricultural sector. Abdollahi (2003) found that quick and easy access to financial resources is a major factor in agricultural sector investment and development.

According to definition, the financial market is a market in which financial assets are exchanged. Banking facilities, bonds and common stocks of corporations are examples of such financial assets. From economic perspective, discovery the price of financial assets, liquidity supply and reducing transaction expenses are considered among the main roles and functions of financial market. The financial market is divided into money market and capital market. Based on this classification, money market includes short-term debts such as bank facilities and capital market covers long-term debts such as stocks, bonds and equities. Considering country's capital market weakness and nonuse of available financial instruments in this market for financing agricultural sector, a major proportion of the required financial resources for investments in this sector are provided out of financial

market and by the government. Accordingly at the present time, financial market of agricultural sector is exclusively the money market and lacks capital market. In other words, disbursement of credits and facilities is the only way to market-based financing for agricultural and rural sectors. In addition, financial market can be classified in formal and informal sectors. A part of the financial market which acts within the monetary laws, regulations and policies is known as formal sector or organized financial markets and conversely the part that acts out of the official rules and regulations is known as "informal" or "unorganized" sector.

Currently a large part of the financial markets of Iranian agricultural sector is under government's surveillance and supervision in such a way that 9.75 percent of the funds offered in this market are provided from formal resources, including Agricultural Bank, rural cooperatives and commercial banks. Informal resources including loan funds, tradesmen, dealers, acquaintances and others provide 1.24 percent of the funds supply. Therefore, the formal market is not able to provide all the requested facilities by applicants in this sector. The reason for this issue is low interest rate of facilities in agriculture sector and consequently the increase of demand toward these facilities in the formal sector. Accordingly, this situation is not observed in informal sector which has flexible and relatively higher interest rate. In Kohgiluyeh & Boyer-Ahmad province, agricultural financial market is limited to the money market and it is also limited to the banking system, especially the Agricultural Bank. In this province, impact of private sector is also negligible and a developed capital market does not exist. Agricultural Bank of Iran as government credit leverage has a very sensitive role in the most important part of country's economy. Therefore, the Agricultural Bank of province is tantamount a tool for government activities in necessary investments to strengthen province agricultural capacity. This Bank provides almost 70% of required credits and facilities of the province agricultural sector. The aim of this study is investigating the conditions of agricultural financial market in the Kohgiluyeh & Boyer-Ahmad province and determining the suitable strategies for market and investment development in agricultural sector of province (Statistics and Information Center, 2007; Banking Statistics and Information Division, 2010).

### Contents and methods

This research is a descriptive and analytical study carried out as a field study. In this study, all the information and required data related to monetary, credit and financial institutions and investment trends in the Kohgiluyeh & Boyer-Ahmad province of Iran and all

Table 1. Agricultural Bank facilities paid in the various agricultural sub-sectors of Iran (Billion Rials)

Year	2003	2004	2005	2006	2007
Farming	6490	8242	15296	13104	16248
Gardening	1563	2235	4842	4023	3958
Ranch	3728	5076	7107	11323	9921
Poultry	1126	1733	3400	3031	2153
Bee	51	70	69	292	147
Agriculture Industry	678	1372	2615	2428	1976
Handicrafts	286	493	468	465	847
Pisciculture	254	338	227	454	446
Agricultural services	2047	3025	3621	3801	5734
Other	6657	9618	3387	1724	3046
Total	22880	32202	41032	40645	44476

Source: Central Bank of Iran

activities in the field of agricultural financial investments including small and large investments and disbursement facilities during 2000 to 2009 were collected and analyzed. The required information is collected through obtaining necessary permissions and direct reference to relevant institutions in forms that were already prepared for this purpose.

Fig. 1. The trend of Agricultural Bank facilities paid in the various agricultural sub-sectors of Iran during 2003-2007 (Billion Rials)

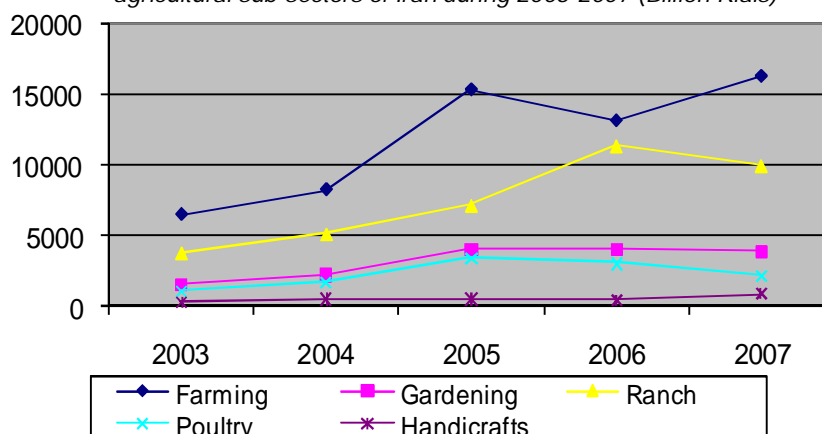


Table 1 and Fig.1 indicate the Agricultural Bank facilities paid in the various agricultural sub-sectors of Iran during 2003-2007. The total amount of disbursed facilities has been 22,880 billion Rials in 2003, 32,202 billion Rials in 2004, 41,032 billion Rials in 2005, 40,645 billion Rials in 2006 and 44,476 billion Rials in 2007. In this period disbursement of facilities has experienced an uptrend except in 2006 which the trend has declined. According to covered population and further volume of local and potential facilities, the disbursed facilities paid in agricultural sector is less than the other sectors and cannot satisfy the needs of agricultural sector (Table 2).

In Kohgiluyeh & BoyerAhmad province, the trend of disbursed facilities to agricultural sector has been fluctuating in 2001-2009. In general the total disbursed facilities in all agricultural sub-sectors of province have increased from 2001 with 137 billion Rials until 2002 with 202 billion Rials. But in 2003 with experiencing a reduction has reached to 201 billion Rials and since 2003 the trend of facilities has again increased. The amount of

*Table 2. Agricultural Bank facilities paid in the agricultural sector of Iran and Kohgiluyeh and Boyer-Ahmad Province (Billion Rials)*

Year	2003	2004	2005	2006	2007
Facility paid in the countries	22880	32202	41032	40645	44476
Facility paid in the province	201	210	286	389	259
Share of province Facilities from the State Facilities	.8%	.6%	.7%	.9%	.6%

*Table 3. Agricultural Bank of Kohgiluyeh and Boyer-Ahmad facilities paid in the various agricultural sub-sectors of province (Billion Rials)*

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009
Farming	39	52	40	59	58	167	55	163	136
Horticulture	18	25	26	30	58	66	43	7	69
Ranch	57	86	96	91	82	95	97	47	134
Fisheries	3	7	6	7	12	18	11	9	3
Bee	2	5	4	1	1	4	4	-----	-----
Machinery	13	19	22	13	36	29	26	3	10
Waterwells	2	3	2	4	6	3	4	3	7
Irrigation pressure	3	5	5	5	33	7	19	33	142
TOTAL	137	202	201	210	286	389	259	265	501

Source: Agriculture Bank Management of province

*Table 4. Harmonic Average of real interest rate of deposits and facilities during 1979-2004 (Billion Rials)*

Period	harmonic rate of deposits	harmonic rate of facilities	Clipping rate of inflation	Deposits interest rate
1979-1988	7.5	9.8	18.9	-11.5
1989-1994	9	13.4	18.9	-9.5
1995-1999	12.6	17.2	25.6	-13
2000-2004	12.2	17.1	13.9	-10.6
Total	9.7	13.4	20.1	-10.4

Source: Journal of the process No.42 and 43 , 2005, Central Bank of Iran

facilities in 2004, 2005 and 2006 reached to 210, 286 and 389 billion Rials respectively. Amount of facilities met declining trend in 2007 again and reached the amount of 259 billion Rials and with an ascending trend reached to 265 and 501 billion Rials in 2008 and 2009 respectively (Table 3). The capital market in the agricultural sector has functioned very weak and was unable to meet agriculture sector needs. In other words disbursement of credits and facilities has been the only way of market-based financing for agricultural sector in province.

Also it is observed that the interest rate of disbursed facilities in agricultural sector has not much difference with the other sectors (Table 4). Interest rate in Iran due to financial repression has negative effects on investment and economic growth rate and has caused underdevelopment of agricultural financial markets.

## Results and discussion

Theoretically, there is a positive relationship between real interest rate of deposits and financial savings. According to Shaw's theory, the main reason of positive effects of financial development to economic growth is the increase of savings level due to positive real interest rate. The study of average banking interest rates in Iran indicates negative average interest rates during

years after the revolution which is the example of financial repression. Short-term deposits of banks have over 50 percent share of total investment deposits and have always experienced negative average interest rate (Table 4). Only five-year investment deposits within current three years have positive average real interest rate. That is because of inflation controlling policies. The average real interest rate of facilities has been negative during the study period except for the period of Third Development Strategy of Iran. Negative real interest rate of facilities is an index for explanation of financial repression phenomenon. As specified in the table 4, the average of deposits real interest rate during 1980-2004 has been 10.4 percent. According to this table, the banking interest rates in Iran due to financial repression caused by negative real interest rates, had negative effects on investment and therefore on economic growth.

The government controls financial resources in Iran and disburses facilities to financial market with low interest rate. Alongside this formal financial market, there are other informal markets that provide required credit and financial resources of agricultural sector with high rates and

show more sensitivity towards market fluctuations. In general, the study of financial markets structures in Iran suggests underdevelopment. The review of investment trend in agricultural sector of Iran during 2005-2007 towards three years of 2002-2004 indicates 4.8 percent decrease of gross fixed capital formation in this sector. In the final three years of Third Development Strategy of Iran the amount of investment growth in the agricultural sector has been 8.29 percent on average while this growth has been estimated 4.21 percent in the first three years of 4<sup>th</sup> Development Strategy of Iran. Total deposits of Province financial and monetary institutions, in 2008-2009 have been 6,332 billion Rials and the total disbursed facilities of province in all sections have been 9,709 billion Rials. But the amount of disbursed facilities in agricultural sector of province has been only 501 billion Rials. The percentage of public and private banks disbursed facilities in mentioned period has been 6.25 percent in industry and mining sector, 7.35 percent in commerce and services, 3.23 percent in housing and construction, 8.1 percent in exports and 6.13 percent in agricultural sector. These proportions have been the same in the province as well. Therefore, disbursed facilities in the agricultural sector have been trivial

compared to other sectors and could not be able to meet the needs of country's agricultural sector and especially the province. Consequently, lack of funding in agricultural sector has slowed down the investment process in this sector and agriculture financial market has encountered recession.

### Conclusion

Considering the potential capacity of agriculture in Kohgiluyeh and Boyer-Ahmad province of Iran in terms of excellent conditions of water, soil and inexpensive labor force, the available financial institutions, current tools and their capacities are completely unsuitable. Also the interest rate of formal sector credits even by calculating the administrative costs is much less than the interest rates in informal sector. These issues have caused the formal sector of financial market to encounter excess demand for funds which lead to recession in province agriculture. Therefore in order to increase the investment in agricultural sector of province, some suitable incentives including increasing the credits of Agricultural Bank, comprehensive support of agricultural sector, establishment of stock market to strengthen farmers' financial capacity as well as creation of diversity in financial markets and brokers, supporting of private sector in agricultural activities are strongly required.

To create efficiency in agriculture financial markets the government should legislate appropriate policy frameworks and remove its ineffective interventions in this sector and should endeavor to eliminate financial broker obstacles. By and large, the effects of financial markets development have been positive on the growth and development of agricultural sector. Considering this impact, expansion and also diversification of country's financial markets in general and establishment of professional financial markets in agricultural sector in particular are required. Also, it is necessary for the capital market to play the better role in country's financial market. As a result, stock market can play an effective role in enabling province financial markets and accordingly in the growth of agricultural sector.

It is recommended to take into consideration the micro credits to rural cooperatives companies which can cause development and growth of agriculture financial market. Financial liberalization process can be effective to remove the obstacles in the way of financial markets through which can lead to empowerment and thereof the agricultural sector growth. Therefore, reform and expansion of agriculture financial markets and especially creating and developing new financial tools to mobilize, regulate and direct financial resources to integrated places should be among the goals and priorities of the province.

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