

The survey of development role of financial markets on the agriculture sector growth in Iran

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ABSTRACT: The agriculture sector is one of the main economy sectors in Iran and the major share of internal gross production is devoted to its. So the survey of effects of several economic variables on agriculture sector growth can be significant. So the main purpose of this study is the survey of development role of financial markets on the agriculture sector growth in Iran. This relation used from vector Autoregressive Model VAR. The necessary data of this study consist of value added of agriculture sector, properties of financial brokers, properties of financial markets, current money which were prepared for 1961 to 2001 period from the balance sheet of Central bank.

Keywords: agriculture sector, survey of development, role

INTRODUCTION

Obtaining the constant agriculture growth is the basic issue that governments and farmers who have low or average income, they encounter to this. For creating such growth, we need to learn the government in the removing poverty, giving the sufficient food which is vital, and pay attention to the key role of agriculture sector that can perform in the pervasive economic development of countries. The agriculture sector is so important in Iran because of the pervasive influence which can be in the removing of economic challenge (freedom provision, alimentary security, making jobs, constant development, and environment preservation). Moreover it shows that the new investment is necessary in agriculture. One of the obligatory and prerequisites of investment and agriculture sector development is the easy and quick access to financial sources. This sector has been faced to the severe limitation of investment because of specific features of agriculture sector, non-development of financial markets of agriculture sector, and the existence of impasses in the financial provision which is vital. This essay shows that for making proficiency in the financial markets of agriculture, the government should deduct political framework and the government should eliminate the intermediations which are not proficiency in this sector for removing financial intermediate barriers, sustaining the financial structures, developing financial tools, the constant financial service for making new investment and provides the economic doers in this sector. The agriculture sector plays an effective role in the structural alteration of every country in order to move faster towards development. The development of the agriculture sector is precondition of economic development of the country in any situation. And until the developing barriers of this sector are not removed, other sectors will not achieve growth and development. It is vital for economic development to have an chief and strong agriculture sector. The investment is as one of the important characters which increases the economic activities of production rate. At the result, the utilization of other production factors are increased. The investment and the capital are the key factors of the growth and the development in the agriculture sector. Lack of capital in the agriculture sector of the country decreases the utilization rate of productive institutions. The less utilization has reduced the expected income of agriculture project and the profit of these activities and they

have been imaged for uneconomic and risky investment .The experience of developing countries in the producing agricultural crops show that using from capital tools in the different agricultural activities have been caused the increase of production factors utilization such as management , workers , and production institutions . It is good for the creating suitable output for investments, internal proffer surplus, and developing export of agricultural crops .The existence of causal relation from financial markets towards economic growth presents the viewpoint of proffer financial markets of interlocutor. It means that the create and development of financial markets have increased the service proffer which finally has caused the economic growth. (Makinon , 1973) , (King Velvin ,1993) , (Nevisre Kogler , 1998) , (Velvin ,2000) , their studies are the explanatory of proffer interlocutor .It is in the condition that other group of experts believe that financial service as been increased by increasing demand of production .Finally , it has positive effect on financial markets growth . in the other words , the development financial markets which create with economic growth and not in the opposite .So the causal relation of economic growth towards financial markets development presents the viewpoint of demand financial markets of interlocutor .It means that the increasing demand for financial service , at the end the economic growth will cause the financial markets development .The (Garly and Shav , 1969 and Johng , 1986) confirm this theory .In the done studies which are about the effects of financial markets on the economic growth , two scales have been considered for the financial sector development first , it is the estimating from total properties of financial brokers (FIA) which consists of bank system of the country , the insurance company and agriculture cooperative as the important financial institution .And second ,it is the estimating of the properties of financial brokers in addition of total properties of financial markets (FIAC) .So, the vital data of this study consist of value added of agriculture sector (VAA) , the total financial properties (FIA) , financial markets properties (FIAC) , and current currency (CC) that are come from balance sheet of central bank for 1961 to 2001 period .For estimating polar behavior of several variables , the time series of synchronic equivalents system are usually used .In this framework , a structural pattern is that any one of its equivalents are determined bodily in based on economic theories .In the fact , we should decide about such systems about that any one of Darvenza variables in based on theory sequence of variables. In such a pattern, some of Darvenza variables another group of Habervenza variable or they are determined before .Before the estimate of such a pattern, it is necessary to determine equivalents of this safe system. It means that regarding issue recognition of equivalents system, the suitable estimate methods are used. So, before estimating pattern of synchronic equivalents system, it is necessary that the Algebra variables have been divided to two groups: introspection, outside scab .And then, the pattern recognition had been obtained. These decisions are usually achieved by the researcher. Generally, the problems about synchronic equivalents system such as judgment about introspection and outside scab variables, have caused to create a new pattern named Vector Autoregressive Model or VAR pattern. Patterns which try to explain the behavior of a variable in based on previous amounts those other different variables in the same time .The time series pattern is named several variables .Vector autoregressive model or VAR is a kind of this .Dynamic analyze of several variable has advantages such as considering the synchronic issue among variables .Also , it has been observed that the given predictions in based on VAR pattern is better than the given predictions which have been by the synchronic equivalents patterns (Nowferosi , 1999) .So the survey of causal possible relations among mentioned financial variables with value added variable of agriculture sector can do using from cause test by vector autoregressive model , in condition , all of variables are constant .The main reason of VAR pattern choice in the current study is adjustment of VAR pattern features with purposes of the study .So that , it was said , the purpose of this study is the survey of causal relations between financial variables and value added variable of agriculture sector which can do in the form of VAR pattern by using from cause test .Also , the total features of another VAR model are the easy work with the pattern and the possibility of models estimate in ordinary least squares(OLS) which had been another reason of VAR pattern choice in this study .The VAR pattern in the matrix form is as followed: Y_t and its pauses and also U_t vectors $K*1$ and Y_t matrixes $k * K$ are coefficients pattern . So, for estimate of possible relations between financial markets development, and agriculture sector growth we used a model which as as followed: That X_t shows economic huge variables (value added of agriculture sector), Y_t is the current currency and is development scale of financial sector. Above model is on this theory that all of using variables are constant in the model .So , in the current study , nine phase test in the final survey of variables are used .The first and important test that should do in the time series is the final test of variables. In the survey of this issue, the final test was used in the nine phase method that its results have been brought in the table.

Table 1 . the results of the final test of variables

variables		Final condition	Meaningful level
Value added of agriculture sector	vAA	By form of era and without process	Durable in 1 percent level
Properties of financial broker	FIA	By form of era and process	Durable in 5 percent level
Properties of financial markets	FIAC	By form of era and process	Durable in 5 percent level
The current currency	CC	By form of era and process	Durable in 1 percent level

Source : the findings of research Table 1 shows that the case studied variables in the 1 % level and 5 % level were durable .and also , we can use VAR pattern .Moreover , for estimate of VAR pattern , it is necessary that the optimum pause quantity of pattern is determined .In this base , the optimum pause was chosen by using two scales : Akaiek , and Shoovartez–Bizen At the end , regarding the determined pauses by the mentioned scales , the mentioned model had been estimated by considering the economic huge variables (value added of agriculture sector) and the variables which are related to financial markets (the limited properties of financial markets and total properties of financial markets.)The results of this estimate have been given in table 2 , 3 .Table 2 shows the results of model by considering the properties variable of financial brokers as the development scale of financial sector , and value added of agriculture sector as dependent variable.

Table 2. the results of ILS estimate related to value added equation of agriculture sector

Explanatory variables	Coefficients	Error scale
VA(-1)	0/69440	(0/25017) [*]
VA(-2)	0/35156	(0/26488)
VA(-3)	0/08348	(0/20540)
FIA(-1)	-0/62563	(0/72373)
FIA(-2)	0/00307	(0/00153) [*]
FIA(-3)	-0/18725	(0/00150)
CC(-1)	-0/05330	(0/0525)
CC(-2)	-0/14195	(0/10867)
CC(-3)	0/17126	(0/07574) [*]
INT.	-56/8680	(53/6234)
F(10,29)=963/3354(0/000)		R-Squared=0/9970
		R-Bar-Squared=0/9959
F _{Serial correlation} =2/0446(0/164)		
F _{Heteroscdasticity} =0/4615(0/501)		
CHSQ _{Normality} =4/1092(0/128)		
F _{Functional Form} =0/0335(0/856)		

Source : the findings of researchThe meaningful in the 10 % level The amounts of coefficient was determined in the table 2 and the determined coefficient shows the good value of model. And also , F statistic with meaningful level presents the meaning of total model .The results of done recognition tests regarding statistic and the meaningful level which have been given at the end part of table 2 that shows the non – existence of serial correlation , non – existence of Heteroskelasticity , non –existence of error correction , and being normal the deranging sentences .The results of value added equation estimate of agriculture sector have been given in the table 3 , when the properties of financial markets are considered as dependent variable .

Table 3. the results of OLS estimate related to value added equation of agriculture sector

Explanatory variables	Coefficients	Error scale
VA(-1)	0/70268	(0/25072) ^{**}
VA(-2)	0/34023	(0/26572)
VA(-3)	0/08512	(0/20482)
FIA(-1)	-0/64083	(0/69223)
FIA(-2)	0/00308	(0/00148) [*]
FIA(-3)	-0/68494	(0/00147)
CC(-1)	-0/04878	(0/5207)
CC(-2)	-0/14760	(0/10857)
CC(-3)	0/17285	(0/07554) [*]
INT.	-55/6769	(53/5873)
F(10,29)=970/8447(0/000)		R-Squared=0/9970
		R-Bar-Squared=0/9959
F _{Serial correlation} =2/0990(0/159)		
F _{Heteroscdasticity} =0/0264(0/872)		
CHSQ _{Normality} =3/9657(0/138)		
F _{Functional Form} =0/4324(0/515)		

Source : the findings of research*Meaningful in the 10 % level **Meaningful in the 5 % level In the table 3 : the amounts of coefficient was determined , and the balanced and determined coefficient shows the good value of model. And also , F statistic with meaningful level presents the meaning of total model .The results of done recognition tests regarding statistic and the meaningful level which have been given at the end part of table 3 that shows the non –

existence of serial correlation , non – existence of Heterosk elasticity , non – existence of error correction , and being normal the deranging sentences The various studies with different results in the related base between growth with financial development have been done in the overseas. Different scales have been used in these studies for presenting financial development .(Ahmad and Ansari , 1998) surveyed the relationship between financial development and growth of three countries , India , Pakistan , Srilanka .The results of study showed that the financial development had been the growth reason of these countries .(Bik and co- workers , 2000) surveyed the relations among financial development with economic growth , the growth utilization , sum of physical capital , and private saving price in the similar study .The results of their study showed that financial development has positive effect on growth utilization of the whole production factors , physical growth of capital , and private saving price. (Kalderon and Liuo ,2003) surveyed the relation among economic growth and financial development for 109 developed and developing countries .The results of their study expressed that financial development causes the economic growth totally. Two – sided grangers cause exist among economic growth and financial development of these countries .And also , (Fasi and Abma , 2003) surveyed this relationship for 9 Asian countries .They considered the financial properties as sight -seeing ; and they concluded that the cause moves from financial structure towards economic growth. In another study,(Liuo and Heso ,2009) surveyed relation for 3 Asian countries, Taiwan, Korea, and Japan. They used two scales of current price of foreign and domestic capital GPD for explanatory the effect of international capital movement in its growth model The results of their study showed that many investment of economic growth have been advanced in Japan , but it did not advanced in Taiwan ; because the optimum investment is not considered .(Ang , 2007) surveyed the financial development and economic growth mechanism of Malaysia .The results of this study presented that the financial development with increasing private saving and private investment has caused the more growing economy of this country .(Abo bader and Abo Karen , 2007) surveyed the economic growth cause relation and financial development in Egypt .In their study , four scales had been considered such as the saving price of currency in GDP , the price of money supply rate less banknote and money in GDP , the price of private sector credits in GDP , the credits price of non- financial private institutions in the whole inside credits as financial index .The survey of cause relation of these scales with economic growth by Grangers cause test showed that financial development is the reason of economic growth in Egypt.

CONCUSION

The results presented that the long – run two – inside cause exists between growth of agriculture sector and its financial development .Also , the growth of agriculture sector in the short time is the its reason of financial development .While the convenience of agricultural bank in the short - term and long - term is not the reason of capital forming in the agriculture sector .So , regarding the obtaining results from the study, can be given suggestions as followed :-The results of study showed that credits of agricultural bank in the long – term is not the reason of capital forming in the agriculture sector .In this base , it is offered that credits devotion of agricultural bank to increasing capital in the agriculture sector should be controlled And it should be prevented from agricultural credits desertion to the other sectors .-The results of the study signify that none of the financial development scales in the short – time had not redounded to the capital forming in the agriculture sector .In this base , it is necessary for capital forming in the short – time , we should recognize the credits of agricultural bank , and other banks do some corrections in order to reduce the administrative barriers in front of demanding credits in the agriculture sector which can help to this fact .During three decades ago , the share of agriculture sector of Iran from total value added in average has been about 13 percent , and its share of the total gross capital forming in average has been about 4 percent. Although the importance share of agriculture sector in economy of mentioned period has increased twice , the gross capital forming in value added of this sector has decreased in half .The development of this sector has faced to difficulty because of the paucity of investment in the mentioned sector and the tuneless distribution of capital among the different economic sectors .One of the basic barriers of investment in the agriculture sector is non –developing institutions and financial burden of agriculture , and lack of financial tools of this sector .

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