



The role of EGFI¹ on export of agricultural sector

Shahriar Nessabian¹ and Narjes Asadi*²

¹Associate professor in economics and accounting faculty of the Islamic Azad University central Tehran branch.

² MA student of Economics, economics and accounting faculty of the Islamic Azad University of central Tehran branch.

ABSTRACT

The present article studies role of Iran export insurance fund on agricultural export sector by during 1385-1391. Since activity in agricultural sector is one of the most dangerous economical activities, and the most important problem of planners and politicians of agricultural development reducing risk of economic activities and increasing security coefficient for producers of agricultural sector is very important. Export credit and insurance institutions are established generally by governments for supporting counties export. In fact, many studies are based on insurance and economic growth variables; however, there is little attention to role of credit insurance institutions especially in agricultural sector by researches.

Key words: Agricultural export, Insurance institutions, Agricultural sector

JEL classification:Q170,Q140

INTRODUCTION

Having activity in agricultural part is one of dangerous activates in economics.(Argent,2000) Different kinds of natural and economic risk have provided a fragile and vulnerable collection for manufacturer of this part.(Moshirian,1999). Among financial instructions, insurance institutions can relieve the insured individual by paying losses and they have an important role in providing saving resources and increasing investment and decreasing risk.(Honohan,2010)in order to, facilitate international trade and develop export, many countries make special institutions(state institution or supported institution)(Sibel Dinç Aydemir,2011), which can be used as export credit institution or export guarantee fund.(Apring.2010). Product and services exporter and manufacturers, trade and developmental

¹ - Export Guarantee Fund of Iran

banks and Iranian investors in abroad include a wide range of Iran export guarantee fund beneficiaries (Dewit, 2001). The fund risk include a wide range of credit commercial and political risks which guarantee beneficiaries security. In fact, most studies in this regard are scientific studies about insurance and other economic variables. However, there was little attention to effects and performance of Iran guarantee fund in agricultural sector. In early years of 1350s, as the result of recommendation and technical help of ANCTAD, Iran guarantee fund export was established after reduction of oil revenue in that decade for first time, however, the organization put in to melting pot. After Islamic revolution, the organization declared its formal activity since 1373 and the official rule were past in 1996-1997. In this article, by using econometrics method s, we have tried to study that whether issued bail bond from agricultural sector had a role in agricultural export. Finally the results show that unfortunately the fund could not have an effect on the amount of agriculture sector export.

Research Literature review

Karman Gorsia and Evin and Morga (2004) study the role of export credit bail bond. Therefore the more is supported export in specific threshold, the more is the ability of exporter in trade.

Mohammad, Moazzazi and Torkamani (2004), studied short and long run effects of auricular products export by using VAR model techniques n econometrics.

The results show that the growths long and short run of agricultural export is negative. However in short growth agricultural export run is positive and it is negative in long run.

Mohammadi (2004) studied the relationship between insurance and agricultural sector export by using Johansen integration test and predication error criterion. The result show that there is a relationship between variable of insurance and export bund there is no case and effect relationship between them.

Aprring, Lorant and Morison (2010) analyses investment sectors and show that supporting funds should be arranged in order to provide credit guarantee designs. Then-interpreters -should apply general choices in private interpreter's projects and show that public subsidies in long run can reduce certainty of costs in private sector.

Jahangard (2011), in an article focused on economic growth model and null model hypothesis studied test of cause and effect, economic growth insurance relationship, and the importance of insurance industry in Iran economy between 1346-84. The study of chronological data based on test of case ad effect show that the relationship between insurance in Iran and economic growth is unilateral.

Gahromi and Abedi (2011) tried to recognized effective factor on growth and development of agricultural sector by using estimation of practical model of co-integration technique and error correction model. The results show that the effect of index of agriculture export on added value index was positive.

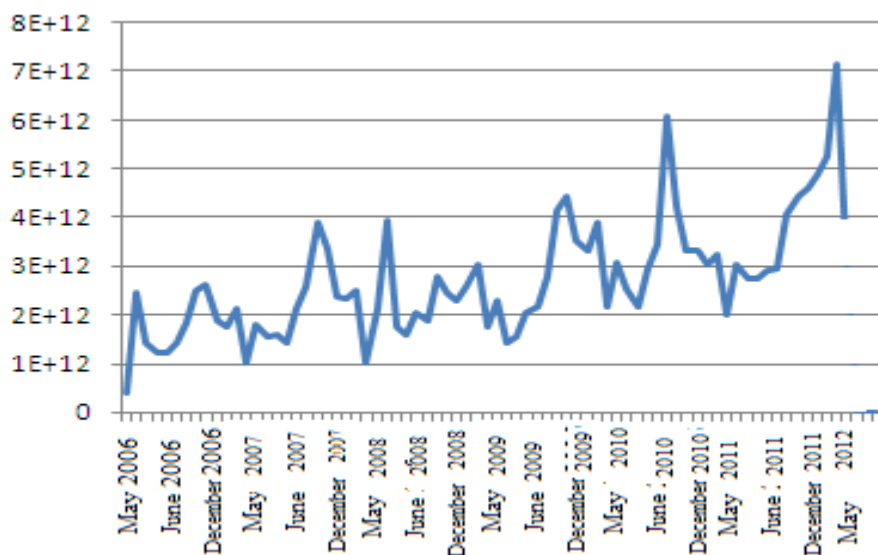
MATERIALS AND METHODS

The present research model is a follows and because diagram variables have big functions and when you use logarithm variables, you can pave the way for series of ranges.

Log expagri=F (log linsu, log Lind) Formula1

Independent variable include linsu, issued insurance fund and Lind index of export goods and fund and Dependent variable log expagri is exported corps of depended of agricultural sector.

diagram1



Sources: findings of researchers

Diagram 1 shows policy of export in agricultural sector during 72 month. Available data due to Rial in relation to base year 72 is declared form central bank Islamic Republic of Iran.

Stationary state:

The first study in estimating diagram is determining stability of variable s. In this methods, first, the null hypotheses is determined

In these researches, it is supposed that null hypotheses have a defined unit root.

In the case of rejection of null hypotheses, the variables have no unit root and sothis is stationary.

Lexpagri=this variable is stabile

Linsu=this variable is stable and,

Lind this variable is not stabile in the level and in first differences in each of three level1, 5, and 10 percent is stable

In order to determine this difference of variable suitably none is elected.

Table1: The result of steady of variable is presented based on preparing of the test

Result of test	Value	Variable
Stable	7.4-	Lexpagri
Stable	8.96-	Linsu
Stable in 1 level(1)	5.68-	Lind

Sources: findings of researchers

Determination of lag order selection criteria

Now we should determine lag order selection criteria then the model is estimated based on several pair of lag and pair of lag which is estimated by the model and the minimum criteria of Akaike and Shwarz considered as the best diagram for return of diagram and the available results are chosen.

In the study, lag order selection criteria which is the lowest amount of Akaike and Shwarz equall 1.

Table 2.criteria for lag order selection

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-102.469	NA	0.005953	3.389662	3.592057	3.469396
1	-82.5337	36.75614	0.004233*	3.047927*	3.553915*	3.247261*
2	-75.729	11.90809	0.004548	3.116532	3.926113	3.435467
3	-65.0893	17.62201*	0.004348	3.065291	4.178465	3.503827
4	-55.9835	14.22781	0.004383	3.061985	4.478752	3.620121
5	-53.0662	4.284903	0.005394	3.252067	4.972427	3.929804
6	-45.5845	10.28726	0.005804	3.299516	5.323469	4.096853

Sources: findings of researchers

There are different criterions in VAR model, among them Shwarz and Akaike in relation to other criteria show the most practicality (salis a perasad, 1992). The observations indicate that Akaike and Shwarz creation in first lag has the lowest amount.

Analysis of variance

Analysis of variances separates the differences in endogenous variable in relation to other endogenous variables.

In this method the share of shock of pattern variables in prediction of error variance is predicted as a variable in short run and long run.by analysis prediction of error variance, share of functions of a variable in reaction to the shock, is divided to pattern variables.

Therefore, we can measure share of each variable on the variables during the time. In fact, by studying analysis of variance, each shock in prediction of a variable is determined.

Table of variances analysis is as follows. In first step (short run), usually functions of each variable is explanation impulse of that variable. But in long run, share of other variables in prediction behavior of variable is increase based on its importance.

Table 3- Analysis of agricultural export variance

Period	S.E.	LEXPAGRI	LINSU	DLIND
1	0.307797	100	0	0
2	0.370684	99.15609	0.134536	0.709378
3	0.396393	98.5315	0.158029	1.310469
4	0.407791	98.17673	0.162756	1.660518
5	0.412978	97.99522	0.163849	1.84093
6	0.41536	97.90678	0.164132	1.929085
7	0.416459	97.86474	0.164213	1.971047
8	0.416967	97.84501	0.16424	1.990753
9	0.417201	97.83581	0.16425	1.999941
10	0.41731	97.83154	0.164254	2.004209

Sources: findings of researchers

As you can see in table3, in the first cycle 100%, an agricultural export change is explained by the variable itself. The variance analysis are defined in a way that in first cycle (short run) usually fluctuations of each variable explained by impulse of that variable. But in next cycles, amount of explanation is reduced in a way that this criterion reaches 99% and it shows that the amount of other variables in explanation of agricultural export changes increase which indicates the accrued value of that model.

The variable of insurance in second cycle explanation 1.3% of agricultural export changes, but this number has increased during the time and the third cycle, it reaches 15% and in the fourth up to tenth cycle, this number reaches up to 0.16%

The export relative cost variable in second cycle's shocks 0.7% of agricultural export fluctuations. This number in second cycle increases up to 11.3%, in the fourth cycle, this number increases up to 1.16. This number increases this trend and in the trend cycle in reaches 2%.

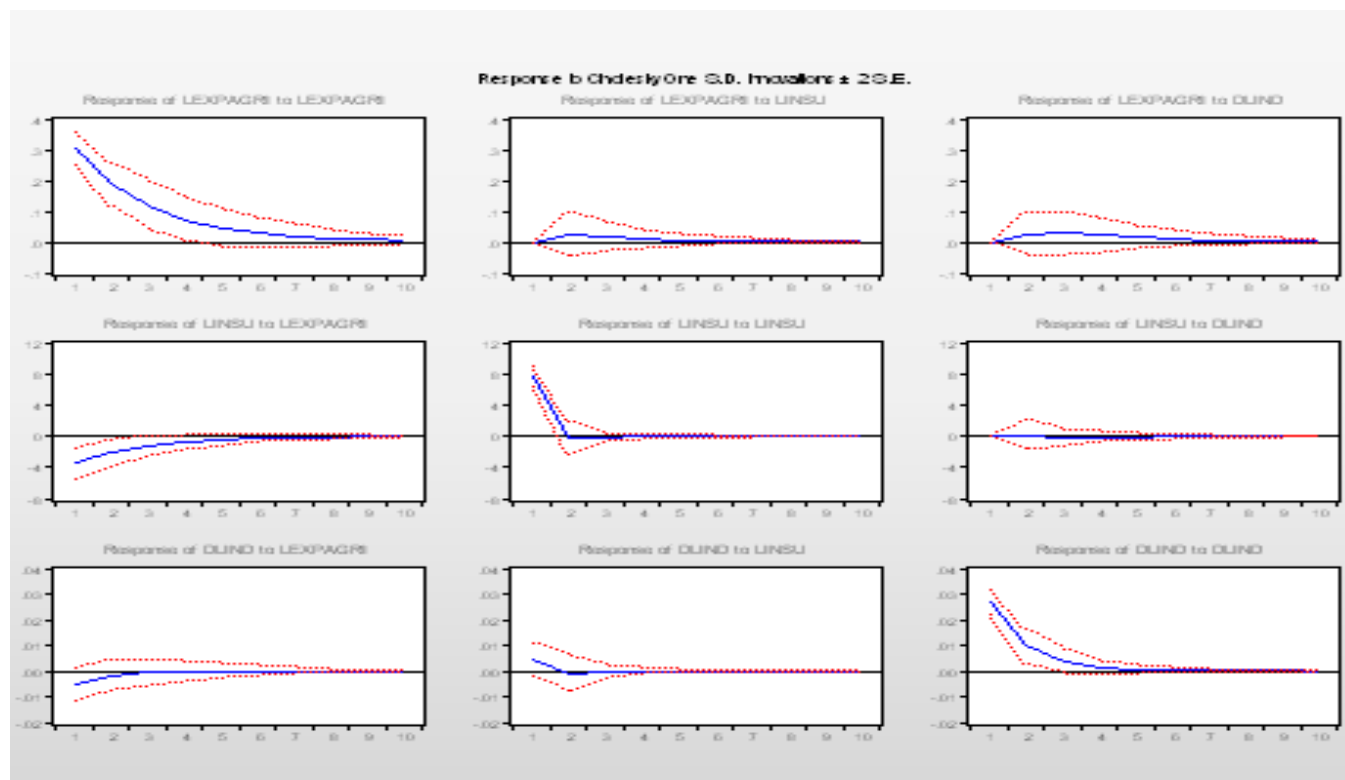
Totally, the results show that, not only the insurances, but only the export relative cost variables could not explain agricultural sector export, which means that they have no effect on agricultural export.

Impulse response function

Using this criterion makes it possible to study reactions of export insurance variable and export costs on agricultural sectors by using impulse response function in both of variables. This reaction is continued up to many cycles

For acquiring impulse response function from dependent variables, to interred system and dependent variable in relation to start impulse in measured.

Figure 2: IRF function



Sources: findings of researchers

In the first cycle, an impulse resulting from agricultural export itself is affective up to ten cycles and then the impulse will be mortal

It is observed that an impulse resulting from insurance on agricultural export from first cycle leads to a little increase in agricultural export, which reduces then. Until the fifth cycle in which the impulse is mortal

In the case of export cost impulse, it is possible to use the same analysis which causes increase in the agricultural export in the first cycle which reduces in a descending order until it t is mortal

The impulse from insurance policies on insurance, leads to decrease in insurance strategy and this term is mortal in the second cycle.

The impulse from export on insurance leads to increase of insurance for 6 cycles and then it decreases.

The impulse from insurance on the insurance itself leads to decreasing trend for two cycle and then impulse mortal

About export impulse effect on relative cost you can say, the impulse increases up to two cycles and it reaches its maximums, then it immortal.

The impulse of insurance on relative cost leads to relative cost reduction and it maximum effect continues to second cycle then the impulse is mortal

Finally, impulse of relative cost on the relative cost itself continues nearly up to fifth cycle and then it is mortal.

The final result from reaction and impulse shows that the issued insurance from export insurance fund has no effect on agricultural export, so testing hypotheses based on effective of role of export insurance fund on agricultural export sector will be rejected.

As a result of this article, we can say Iran export insurance fund had not effective role on agricultural export sector. (samadione of the most effective reasons of low effective of export insurance of agriculture sector in agricultural export sector can be found in the several fluctuations of presenting this kind of insurance and low flexibility of agricultural export in relative cost changes.

Conclusion

According to grantee fund performance in first 10 month in 90 by issuing 433 insurance and bail bond, 678 million dollar which indicate 41.6 percent growth respectively, a similar growth in the relation to previous year is resulted, it seems the fund has not focused on presenting agricultural insurance and it has better performance in sector such as mortal, industry, and metals, by relative value of 2034.7 million dollar. As this fund has been unknown many of economic sectors especially for agricultural activities, since 1375, a suggestion is introducing and recognizing this fund to private organizations in addition to public organization.

REFERENCES

- Argent, N. (2000). whither the lender of last resort? The rise and fall of public farm credit in Australia and New Zealand, *Journal of rural student*, 16: 61-77.
- Apring, S., Loranth, G., Morrison, A. (2010). Public initiatives to support entrepreneurs: Credit Guarantees versus co-funding”, *Journal of financial Stability*, 6: 26-35.
- Dewit, G. Intervention in risky export market: Insurance, strategic action or aid?” *European journal of political economy*, 7: 512-592.
- Edwardes, TB. (1997). *Credit Management: A survey of practices, managerial Finance*, 32(3).
- Moshirian, F. (1997). Foreign direct investment in insurance services in the united states” *Journal of multinational financial management* 7:159-173.
- Jahangard, E. (2012). insurance economic and development in Iran”, *journal research and economic strategy*, 59: 55-88.
- Markowitz,H.(1952). The utility of wealth, *Journal of political Economics*60:151,158.
- Moshirian F, 1999. Sources of growth in international insurance services” *Journal of multinational financial management*, 19, 177-194.

Sibel Dinç Aydemir,Cevat Gerni(2011), Measuring Service Quality Of Export Credit Agency In Turkey By Using Servqual, Procedia Social and Behavioral Sciences 24 (2011) 1663–1670.

Soumaré I, SonL, 2010. Van “Credit insurance and investment: A contingent claims analysis approach” International Review of Financial Analysis, 19: 98- 107.

www.egfi.org