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Estimation the Supply and Demand Gap of Export Credit and Determination of Influencing Factors

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Abstract: The general objective of this study is to estimate the supply and demand gap of export credit and determining the factors influencing on it in Iran. Results showed that average gap of supply-demand of export credit payment in 2005 were 60%. Also, credit gap for export to Asian, European and Arabic countries are 56.7, 66 and 53.3%, respectively. Credit gap is 62.6% for industry sector and 57.4% for agriculture sector. Also it is 50.5% for land collateral and 71.4 if promissory note is used as collateral. Considering some factors such as nature of customer's activity, selling capability, importance of good in country's economy for determining the amount of credit as suggestion has introduced.

Key words: Export bank, finance, inefficiency, credit market

INTRODUCTION

An important factor of economic development is expansion of exports. Dependence on oil income and raw materials export causes not to success in development programs aimed to expanding of non oil exports. With regard to increasing acceleration of competition in world's markets, governmental supporting for establishment of competitive industries seems to be inevitable (Zekavat, 2001). So, using the motivations and aimed credit payments to achieve more shares in world's market are required as an important strategy to develop exports. In fact, Development of Financial resource is vital for every economic activity and growth rate of export is completely correlated to financial situation. Improving export needs competition in economic environment and credit has a crucial role in economic competition (Kohzadi, 2003). Therefore, banking system can help to develop the export amount because it is a way for transferring the government supports to exporters. Iran's export development bank as a financial institute was established in 1992 with the aim of expanding non oil exports and increasing trade with initial investment of 50 billion rials that raised its capital to 3068 billion rials in 2004. Financing export activities is the main responsibility of this bank (Kohzadi, 2003).

The supply and demand gap of export credit has been considered in a few studies. Petrick (2004) showed access to credit with low interest rate has significant effect on investment behavior of farmers but its marginal effect is lower than one. Freeman *et al.* (1998) indicated that some social-economic characteristics of farmers are

important to be in credit constrained group. Iran-Nejad (1997) emphasized on the supply-demand gap of credit and showed just 48.7% of credit demand was covered in the Iranian 2nd development program. Mir *et al.* (2002) indicated that some variables such as land, labor and saving amount in bank have significant effect on credit access and level of production. Zeller *et al.* (2001) found that in Bangladesh credit access had a significant and strong effect on both income and food consumption. In contrast, Diagne and Zeller (2001) found that lower profit levels can come from a number of sources including lower investment levels and a misallocation of variable inputs. The literature suggests that credit rationing can cause a misallocation of resources in farm production. This misallocation of inputs can then cause the credit rationed farmer to have lower profit levels than his unconstrained neighbor. With regard to duty of this bank seems that because the lack of financial resources, it can't cover all actual demands of exporters for credit. Additionally, this bank can't response to requirement credit of agricultural products exporter. So, there is a gap between supply and demand for credit payments that should be analyzed in order to find depth of gap and factors influencing on it. Results of this study can be used for policy making in export development bank and setting some general economic plans. Also, financing of export can provide conditions for acceleration of agricultural products export and competition in world markets. So, determining the supply-demand gap can help to bank for decreasing the gap and increasing the facilities for response to demands. This process can help to facilitate the exports of agricultural products and increasing of exporter, bank and farmers income.

MATERIALS AND METHODS

In this study, with regard to amount of supply-demand gap of export credit, average of gap was estimated. For this purpose data was collected about 26 cases (total of population) of export credits paid by export development bank of Mashhad (place in Razavi Khorasan Province) to agriculture products exporters in 2005 (Table 1). Information of credit supply was achieved by interview with bank holders. Also, data for credit demand and constraints of access to bank loans was collected through questionnaires by exporters. Then, answers of bank holders and exporters were analyzed and comparison was done to find the most important factors influencing on gap creation.

This study was done on export development bank of Razavi Khorasan province in Iran (branch of Mashhad) in 2005.

RESULTS AND DISCUSSION

Estimation the supply-demand gap: In order to calculate the gap, amount of each case of paid export credit was subtracted from customer’s real demand and gap percent was calculated. Results show that average of gap for observations is 60% (Table 2). It means that paid credit during 2004 covered just 40% of total credit demand.

Gap classification: With regard to Table 1, classified gap on the basis of different criteria was calculated and average of gap percent was achieved for each group. Three criteria (destination of good, economic sector and kind of collateral) were used to classification the supply-demand gap of credit.

Destinations of goods: Table 3 show that export to Arabic countries have a gap equal to 53.3%. It is the least gap rather that of Asian and European countries. Saffron and food products are the main part of export to Arabic countries so that Iran has a strong market for selling these goods. Low gap can be cause of this situation. Average gap for export to European and Asian countries are 66 and 56.7%, respectively. So, export to European countries have the biggest gap between supply and demand of export credit. In fact, Europe is more extensive market for Iranian export goods and exporters needs more credit support that causes to extension of gap.

Economic sector: Payments of export credit includes two sectors of industry and agriculture which average gap are 62.6 and 57.4%, respectively. It means that agriculture has more shares of payments.

Collateral: With regard to kind of collateral, gap can be classified into two groups: gap from credit payment for

Table 1: Characteristics of sample

Sample	Destination	Goods	Activity	Collateral	Contract
1	Arabic countries	Saffron	Production	Land	Installment
2	Asia	Saffron	Commercial	Land	Sharing
3	Asia	Shoes	Commercial	Land	Sharing
4	Asia	Wood	Commercial	Land	Sharing
5	Europe	Saffron	Commercial	Land	Installment
6	Asia	Fruit	Production	Promissory note, Land	Installment
7	Europe	Raisin	Commercial	Promissory note	Sharing
8	Europe	Raisin	Commercial	Promissory note	Sharing
9	Asia	Chocolate	Commercial	Promissory note	Sharing
10	Asia	Food products	Commercial	Promissory note	Sharing
11	Asia	Carpet	Production	Promissory note	Installment
12	Arabic countries	Saffron	Commercial	Land	Installment
13	Asia	Tile	Commercial	Promissory note	Installment
14	Asia	Clothes	Commercial	Land	Sharing
15	Asia	Chemical paint	Commercial	Land	Sharing
16	Asia	Pistachio	Commercial	Land	Sharing
17	Europe	Carpet	Commercial	Promissory note, Land	Sharing
18	Asia	Plastic	Production	Land	Sharing
19	Asia	Pasta	Production	Promissory note	Installment
20	Europe	Carpet	Commercial	land	Sharing
21	Asia	Fruit	Production	Promissory note	Installment
22	Europe	Saffron	Production	Promissory note	Sharing
23	Europe	Saffron	Production	Promissory note, Land	Installment
24	Asia	Plastic	Commercial	Promissory note	Sharing
25	Asia	Saffron	Commercial	Land	Sharing
26	Europe	Chemical materials	Production	Promissory note	Installment

Table 2: Gap of supply-demand

Sample	Gap (%)	Gap (million rials)	Supply (million rials)	Demand (million rials)
1	66.7	2000	1000	3000
2	60.0	1500	1000	2500
3	25.0	250	750	1000
4	50.0	500	500	1000
5	84.0	8400	800	5000
6	33.3	10000	20000	30000
7	70.0	700	300	1000
8	70.0	700	300	1000
9	85.0	850	150	1000
10	53.3	800	700	1500
11	80.0	40000	10000	50000
12	40.0	2000	3000	5000
13	84.0	4200	800	5000
14	40.0	10000	15000	25000
15	90.0	27000	3000	30000
16	00.0	0	800	800
17	55.5	2500	2000	4500
18	50.0	500	500	1000
19	73.3	2200	800	3000
20	50.0	2500	2500	5000
21	28.6	2000	5000	7000
22	90.0	7200	800	8000
23	38.5	25000	40000	65000
24	81.0	1620	380	2000
25	75.0	1500	500	2000
26	70.6	2120	880	3000

Table 3: Gap classification based on different criteria

Criteria	Gap (%)
Destination of goods	
Asia	56.7
Europe	66.0
Arab countries	53.3
Economic sector	
Industry	62.6
Agriculture	57.4
Kind of collateral	
Land	50.5
Promissory note	71.4

land collateral (50.5%) and for promissory note as collateral (71.4%). Therefore, amount of gap is correlated directly with kind of collateral. Promissory note makes higher level of risk for bank and causes to increase in gap amount. But using land as collateral decrease risk for bank to pay higher amount of credit to customer.

Effective factors on gap: These factors have been considered from two dimensions: Bank and customers (exporters).

Bank: Bank has some regulations for credit payment so that amount of loan is determined by different factors. These factors are, respectively:

- Financial resources of bank
- Justification of customer’s activity
- Customer’s reputation
- Customer’s ability of export or amount of export
- Customer’s financial situation
- The kind of collateral

- Activity precedent of customer
- Transparency of financial bills
- Reality or legality of activity
- Previous loan repayment

Exporters: Factors were prioritized and weighted on the basis of their priorities. Then sum of the weighted factors calculated. Table 4 shows important factors influencing on supply-demand gap export credit based on exporter attitudes. Financing capability of bank is the most important factor that its share is 30%. Exporters believe that limited financial resources of bank can’t cover all credit demand of customers. Second factor is the kind of collateral that effects on gap. Collateral is the main reason for decreasing of no repayment risk for bank. In many cases, customers don’t have access to credit because the lack of adequate collateral. Next factors are customer’s financial situation (16%), precedent of customer’s activity (15.4%), relationships with bank holders (8%) and other factors (8.3%). Comparison of bank and exporters indicates that exporters attitudes doesn’t emphasize on justification of activity, reputation, export ability, clarification of customer’s financial bills and legality or reality of customer’s activity. But other factors are same as each other.

This study is done with a new view in Iran. So, no existence directly studies in related to supply-demand gap (specially estimate of gap) but in some studies have referred to existence gap between supply and demand of credit that it is consistent to results of this study (Iran-Nejad, 1997; Zekavat, 2001; Kohzadi, 2003).

Table 4: Factors effecting on supply-demand gap based on exporters attitudes

Factors	Priority						Score	Rank	Share (%)
	First	2nd	3rd	4th	5th	6th			
Financial capability of bank	13	5	3	0	1	2	119	1	30.1
Collateral	5	6	4	3	1	0	87	2	22.0
Financial situation of customer	4	3	4	2	1	0	63	3	16.0
Percentage of customer's activity	5	2	4	1	1	0	61	4	15.5
Relationships	1	0	1	6	2	0	32	5	8.1
Other factors	0	5	1	0	2	0	33	6	8.3

CONCLUSION

Result of this study showed that average gap of supply-demand of export credit payment in 2005 was 60% so that bank covered just 40% of total credit demand. With regards to destination of export goods, credit gap for export to Asian, European and Arabic countries are 56.7, 66 and 53.3%, respectively. Credit gap is 62.6% for industry sector and 57.4% for agriculture sector. Also it is 50.5% for land collateral and 71.6 if promissory note is used as collateral.

Existence financial resources of bank and justification of customer's activity have the most effect on amount of credit based on bank view and other effective factors are customer's reputation, amount of export, financial situation of customer, kind of collateral, precedent of customer's activity and so on. Effective factors in the point of view of exporters are respectively: existence financial resources of bank, collateral, financial situation of customer, precedent of activity and other factors like inefficient management, amount of export, bureaucracy in bank and relationships.

With regards to results of this study, one of the most important reasons for creating the gap in supply-demand of export credit is limited financial resources of bank that shows more attention is required to financing banks so that these resources should be distributed on the basis of need of each province and importance of the export goods in province. Because of the great gap for export to Europe, financing exporters in this field should be more attended. Also it is suggested to consider some factors such as nature of customer's activity, selling capability, importance of good in country's economy for determining the amount of credit.

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