

# AN ANALYSIS OF TURKISH EXPORT FINANCING SYSTEM

A THESIS SUBMITTED TO THE FACULTY OF MANAGEMENT  
AND GRADUATE SCHOOL OF BUSINESS  
ADMINISTRATION OF BILKENT UNIVERSITY IN PARTIAL  
FULFILLMENT OF THE REQUIREMENTS

FOR THE DEGREE OF  
MASTER OF BUSINESS ADMINISTRATION

BY  
PINAR YAPANOĞLU

JANUARY 1992

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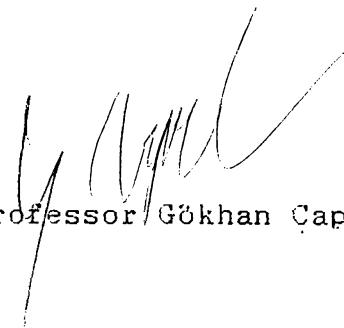
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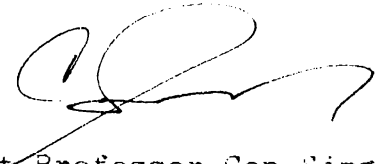
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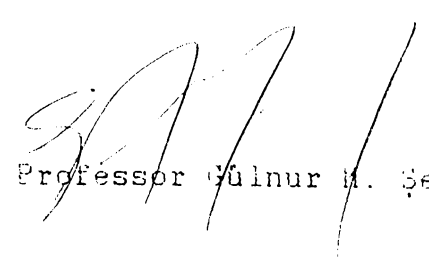
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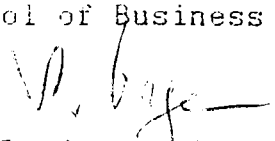
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Assistant Professor Gülnur M. Bengül

Approved for the Graduate School of Business Administration.



Professor Subidey Togan

## ABSTRACT

### AN ANALYSIS ON TURKISH EXPORT-FINANCING SYSTEM

BY

PINAR YAPANOGLU

SUPERVISOR:ASSOCIATE PROFFESSOR DR GOKHAN CAPOGLU

JANUARY 1991

There is an ever increasing competition in the world economy. This makes it difficult for developing countries and even for developed countries to penetrate into new markets and or to increase present market shares. In consequence, the need emerges for official financial support to exporters.

Turkey has started to offer export-financing by extending credits, guarantees and insurances for exporters rather than giving direct subsidies. These functions are carried out by the Turkish Eximbank.

The efficiency of export-financing systems are being discussed even in countries where they have been already in use for many years. In this paper, short-term efficiency of the Turkish export-financing system is evaluated. In order to evaluate the long-term effects of these procedures more time is required.

Key words:Export-financing, credit, guarantee, insurance, direct subsidies.

## ÖZET

TÜRK İHRACAT FİNANSMAN SİSTEMİ ÜZERİNE BİR İNCELEME  
PINAR YAPANOĞLU  
YÜKSEK LİSANS TEZİ, İŞLETME ENSTİTÜSÜ  
TEZ YÖNETİCİSİ : DOĞANT DOKTOR GÖKHAN ÇAPOĞLU

Günümüzde dünya ticaretinin büyüme potansiyalinde bir azalma olmuştur. Bu yeni pazarlara girmeyi ve mevcut pazar paylarını büyütmeyi, gelişmekte olan ve hatta gelişmiş ülkeler için dahi zorlaştırmaktadır. Bunların sonucu olarak, ihracatçılara bazı resmi ihracat finansmanı sağlanması ihtiyacı ortaya çıkmıştır. Doğrudan sübvansiyonlar yerine, Türkiye kredi, garanti ve sigorta fonksiyonları ile ihracat finansmanını seçmiştir. İhracat finansman aktiviteleri Türk Eximbank tarafından yürütülmektedir.

İhracat finansman sistemlerinin verimliliği bu sistemlerin uzun süredir uygulandığı ülkelerde dahi tartışılmaktadır. Fakat bunların kesin olarak değerlendirilebilmeleri için ; daha uzun dönemlere ihtiyaç vardır çünkü bu uygulamaların uzun vadede etkileri mevcuttur.

Anahtar Kelimeler: İhracat Finansmanı, Krediler, Garanti, Sigorta doğrudan sübvansiyon.

## ACKNOWLEDGEMENTS

I am grateful to Associate Professor, Gokhan Capoglu for his supervision, informative and constructive comments and continuous encouragements throughout the study. I would also like to express my thanks to the members of the examining committee for their contributions.

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## I) INTRODUCTION

The subject of the thesis is an analysis of the Turkish export-financing system.

In today's competitive markets, to enter new markets and to keep present market shares is a difficult task for a developing country like Turkey. Increasing exports, is one of the major elements of Turkey's growth strategy. Exports have showed an annual rise of 16.6 % between 1980 and 1989. Another significant outcome of this strategy is that the share of industrial goods have risen from 36% to 73% during the same period. (Euromoney, July 1991).

In order to increase the competitiveness of Turkish exports, to develop new markets and to provide support and insurance for Turkish exporters and overseas contractors, Turkey has established the official credit agency in the form of Turkish Eximbank in June 1987. This bank was financing nearly 20% of Turkey's total exports in 1989 which seems an important aspect in the liberalization process of Turkish economy. (Turkish Eximbank, 1989)

The fact that exports are vital in strengthening Turkey's economy, export financing is a crucial issue for its future

### **(I)-1 What Is Export Financing?**

Buying and selling across national borders presents special problems; evolving from differences in geography, languages, culture and legal systems. Export finance provides support to cover these risks and to minimize them.

Performance Risk: The exporter may fail to deliver the goods as specified in the sales contract. The goods will fail to arrive at their destination, which will result in a potential damage to the exporter's business reputation as well as financial loss.

Payment Risks: Failure to receive payment for shipment, due to some reasons. These might be:

- a) If the buyer does not accept the goods that are shipped, then the exporter will have to bear the cost of shipment to other markets.
- b) The buyer will be unwilling to or unable to pay as agreed when payment is due.
- c) Political events such as wars, strikes, revolutions or other civil disturbances may delay or prevent payment.
- d) Problems in foreign exchange of currency may arise, i.e. if payment is due in foreign currency and the required foreign exchange may not be available, or, allocated in the importer's country to permit the buyer to remit the payment to the seller in the agreed currency. (Kingman, Brundage, Schulz, 1986)

In many cases, since so many risks, as mentioned above, are involved, the commercial banks are unwilling to provide support

for exporters, as they do not want to take risks on their part.

To promote exports and protect exporters against the risks exporting, many countries have established Export Credit Agencies (ECA), which have as their primary function export-financing. Export-financing can be applied in the form of direct credits, or in form of refinancing, eligibility for interest subsidies, guarantees or insurances.

#### **(I)-2-Application Of Export Credits**

Export credits are generally divided into short-term, (usually below two years), medium-term, (usually two to five years), and long term, (usually over five years) periods. Export credit agencies may give support in the following forms:

- 1) Supplier credits, (extended by the exporter),
- 2) Buyer credits, (exporter's bank lends to the buyer),

This type of support may be limited to insurance and guarantees or may include direct credits and all forms of subsidies.

In order to prevent unfair competition, some guidelines have been drawn by the Organization Of Economic Cooperation and Development (OECD). These guidelines shape a gentlemen's agreement a "Consensus" which is revised periodically, establishing financial terms for export credits that are officially supported with a repayment term of over two years. Arrangement matrix of interest rates through years (1976-1990) is given in Table I (OECD, 1990)

## **(II) THE TURKISH EXPORT FINANCING SYSTEM IN A COMPARATIVE PERSPECTIVE**

### **(II)-1 Export Financing Activities Carried Out By The Turkish Eximbank**

The main objective of Turkish Eximbank ( Turkey's export credit agency) is the promotion of Turkish exports through the diversification of exported goods and services. This is to be accomplished by, finding and creating new markets for traditional and non-traditional export goods, and providing exporters and overseas contractors with support and to increase the competitiveness and security in international markets. The bank offers credits, insurances and also bank guarantee financing functions.

#### **(II)-1-1 Insurance and Guarantee Programmes**

The aim of insurance functions is:

- 1)To minimize the risks of exporting due to product and service related problems.
- 2)To minimize the risks for the exporter by gathering data about the importer.
- 3)To forecast political risks associated with the importing countries.(Dogan,1991)

Turkish Eximbank offers two types of export insurance programmes , a shortterm whole turnover insurance programme and a specific shipment insurance programme.(Turkish Eximbank,1990)

#### **Short-term Wholeturnover Insurance Programme**

This programme provides cover for nonpayment of the goods shipped overseas under a contract of sale made with a buyer outside Turkey due to certain commercial and political events.

The commercial risks in the policy are:

- a) Nonpayment due to the insolvency of the buyer
- b) Buyer's failure to pay for the goods that he has accepted
- c) Refusal or the failure of buyer to take delivery of goods

Political risks are mainly cancellation of import permits and licenses, losses that may arise as a result of war, revolution, civil war and transfer difficulties.

The shortterm wholeturnover policy is a continuous insurance programme with a simple annual renewal procedure. The aim of Turkish Eximbank is providing insurance on a continuous basis for sales made on credit terms up to six months. It is a postshipment policy, liability of Turkish Eximbank arises if the loss occurs on, or after the date of shipment. The goods covered under this programme are durable and nondurable consumer goods, raw materials, agricultural products, and other goods exported on a shortterm basis.

#### Specific Shipment Insurance Programme

This programme protects exporters from losses that may arise as a result of commercial and political risks. It is designed to provide insurance coverage for shipments of capital goods and semi-capital goods, including construction machines, transportation vehicles, mining and agricultural equipment and motor vehicles to a single buyer with a credit period of up to five years.

The two policies together provide insurance for goods exported on a repetitive basis to a number of buyers in different

countries as well as a individual contracts carried out with only a single buyer.

#### Guarantees For Banks

In the long run ,it is considered very healthy for commercial banks to provide credits for exporters .(Dogan,1991)For this reason, Turkish Eximbank provides guarantees to encourage commercial banks to finance exporters. Both political and commercial risks are covered under the bank guarantee programme for an individual exporter on a single buyer on a specific contract basis.(Turkish Eximbank,1990)

#### Other Insurance Programmes

The overseas construction works insurance policy, covers civil construction jobs as well as turnkey projects, and provides cover against non-payment for both the suppliers and for the contractor.

Turkish construction companies bidding for overseas jobs may utilize this programme. The risks covered are political and commercial.

The overseas investment insurance programmes covers overseas investments to be made by Turkish investors against losses that may arise from political risks.The eligible investment includes the allocation against a share of capital in cash or kind to a new investment overseas.The objective of this programme is to encourage long term and permanent investments.(Eximbank,1990)

#### Pre-shipment Credit Guarantee

This programme covers the risk of a loss to a commercial



bank after having granted credit to exporter.(Eximbank,1990)

#### Postshipment Credit Guarantee

Enables commercial banks to extend post-shipment credits to exporters through discounting of export bills.( Turkish Eximbank, 1990).

It covers loss a commercial bank after having granted postshipment credit to the exporter.

#### Overseas Contracting Servicing Credit Guarantee

Enables domestic and foreign financial institutions to extend credits to Turkish contractors in connection with their overseas business.It covers loss to a financial institution after having granted credit to the contractor.(OECD,1990).

#### Overseas Investment Credit Guarantee

Facilitates extension of credits by commercial banks to Turkish entrepreneurs in connection with their viable overseas investments.

This guarantee covers loss of a financial institution arising from the granting of credit to the contractor.(Eximbank, 1990).

### **(II)-1-2-Comparison Of Turkish Insurance and Guarantee Functions With Other Countries**

Looking at the insurance and guarantee functions carried out by other Export Credit Agencies, (their names and organizations are given in Table (II) )

The programmes applied in developed countries show similarities but developed countries like Belgium ,Denmark,

Netherlands and Sweden do not provide loan programmes together with insurance programmes.(See Table (III) ).

**TABLE (III)**

-----

THE FUNCTIONS OF ECA'S IN DIFFERENT COUNTRIES

COUNTRY	INSURANCE	LOANS
*****	*****	*****
AUSTRALIA	1	1
AUSTRIA	1	1
BELGIUM	1	0
CANADA	1	1
DENMARK	1	0
FINLAND	1	1
FRANCE	1	1
GERMANY	1	1
ITALY	1	1
JAPAN	1	1
NETHERLANDS	1	0
SWEDEN	1	0
UK	1	1
US	1	1

\*1: Indicating availability of the function.

\*0: Indicating that the function is not available.

Source: OECD(1990), 4th edition.

-----

TABLE (IV)

## A COMPARISON OF INSURANCE AND GUARANTEE FUNCTIONS

COUNTRIES *****	COVER FOR EXPORTERS *****	GUARANTEES *****
TURKEY	.shortterm, repetitive .political, commercial risks .postshipment risks.	.foreign buyers debt obligations .overseas construc- tion work. .preshipment .postshipment .overseas investment .overseas servicing
GERMANY	.single, shortterm medium-longterm .political, commercial risks .post & preshipment risks	.foreign exchange risk insurance .banks giving loans to foreign banks. .cover for leasing construction work insurance .bond insurance
UNITED KINGDOM	.shortterm, for single contracts .political & commercial risks	.supplier credit .buyer credit .lines of credit .bond risk cover .investment insurance .foreign exchange rate fluctuations .preshipment cover
ITALY	.medium-long term against political risks .insurance for direct investment .insurance of market surveys. .payment default manufacturing risks destruction of payment	.medium, longterm buyer credits .shortterm (direct) .foreign exchange risk .bond insurance .cover for public work contracts
SPAIN	.political, commercial manufacturing and credit risks. .indemnification for the loss-contract cancellation (preshipment) .partial payment of deferred value (credit risk) .comprehensive policies	.nonpayment of credit of prefinancing or defaults on credits buyer credit policy unfair calling of bonds .civil works foreign investment .exchange risk .trade fairs

SOURCE: OECD, 1990

The risks arising because of the failure of the exporter to fulfill the terms of the export contract or any negligence on his part, default or insolvency of any agent of the exporter or of the collecting bank, deterioration in the quality of the goods and fluctuations in the exchange rate of the currency of the invoice are not covered in Turkey. These mentioned above are covered in Belgium, Denmark, France, Germany and Italy. (OECD, 1990)

On the other hand, Turkey's bank guarantee functions do not include bond insurance cover, foreign exchange rate fluctuation cover, trade fair covers and market survey costs. In Germany, United Kingdom, Italy, Spain, France, Denmark and Belgium commercial bank guarantees are provided by Export Credit Agencies in form of supplier credits, buyer credits, foreign exchange rate risk programmes, bond insurances, investments, manufacturing, guarantees and contract service risks. (OECD, 1990).

In developed countries such as Denmark, Belgium, France and Italy, in addition to transportation risks, manufacturing risks are also covered. However in Turkey only post shipment risks are covered under the guarantee functions. (See Table (IV))

## **(II)-2-Direct Credits**

### **(II)-2-1-Direct Credits Extended By Turkish Eximbank**

Turkish Eximbank provides:

#### **a) Short-term Export Credit**

The objective of the programme is to meet both the pre-shipment and post-shipment financial requirements of exporters

entering new markets with their products.

b)Export Preparation Credit

The objective of the programme is providing financial facilities to exporters for the export preparation period which must exceed one year.

c)Supplier Credit

The objective is to encourage exporters to sell non-traditional products to potential markets with medium and long term credits and to enable Turkish exporters to compete in international markets.

d)Lines Of Credit To Overseas Borrowers(Country Credits)

Mainly these credits are extended to help Turkish exporters to possess a competitive advantage ,penetrate new markets and to change the present structure of exported goods.The objective is to promote the export of capital goods to industrial and developing countries on a deferred basis with no payment risk to exporters.

e)Buyer's Credit

These types of credit are given with the following purpose:

a)To make it easier for exporters to offer deferred payment of capital goods and other industrial goods in foreign tenders and to enable individual buyers to import from Turkey on a deferred payment basis. Another aim of the programme is to support the export of large value supply contracts and /or turnkey projects to developing countries on deferred credit terms.

**(II)-2-2-Comparison Of Direct Credit Functions Between  
ECA's**

Belgium, Japan , Germany, France and Spain have similar applications of direct credits like Turkey . The mixed credits are extensively used by Japan and France to secure market penetration for their capital goods . In addition to these programmes France has an extensive programme against inflation insurance where as Canada has an extensive foreign contract support.( See Table (v)).

**TABLE (V)**

A COMPARISON OF ECA'S FUNCTIONS IN SEVERAL COUNTRIES				
	INFLATION INSURANCE	EXCHANGE RISK INSURANCE	MIXED CREDITS	FOREIGN CONTRACT SP
	*****	*****	*****	*****
FRANCE	3	3	3	2
JAPAN	-	2	3	3
UK	1	1	2	2
GERMANY	-	2	2	2
US	-	-	1	-
CANADA	-	-	2	3
ITALY	-	2	2	2

- (3)Extensively used programme  
(2)Available and used moderately  
(1)Used only to match competitors  
(-)Not available

SOURCE:Columbia Journal Of World Business,Fall 1989 p:37

All other kinds of credits (medium, long-term and short-term credits extended by ECA's showed all over the world a decline during the period, 1981-1989 .(See Table (VI)).

### **(III) A REVIEW OF THE LITERATURE ON THE EFFICIENCY OF THE THE EXPORT FINANCING SYSTEM.**

There are several studies conducted about the topic of export financing and the effectiveness and efficiency of these systems. However none of them are numerical, they are descriptive studies.

#### **(III)-1-Studies Done By Analyzing Macro-Economic Variables**

**Fitzgerald and Monson(1987)** reviewed the justifications for export credit programmes (pre or post-shipment credit, export credit guarantee programmes) and the experiences of several developed and developing countries, examined to determine under which circumstances, these programmes are efficient and effective

In their report several points are discussed; the following are pointed out:

a)The programmes initiated to eliminate anti-export biases ;the post shipment programmes create capital market distortions where as preshipment credit programmes create domestic market failures. Since it is never known how much to compensate and how frequently to change the rate. On the other hand for export subsidies, additional government expenditures and tax revenues are required. They conclude by stating that capital market distortions and product market interventions should be applied to correct product market distortions.

b)The effect of export credits and export insurance on the balance of payments equilibrium value, the rate of employment,

industrial policy tools and the notion of matching other countries are discussed.No significant of these is stated.

c)The experiences of developing countries are reviewed with developing countries and it is stated that the export financing methods are often overemphasized as tools of stimulating exports.

**Denirguc and Erzan(1990)** conducted research to answer the question of how important officially supported export credits (OSECs) are in Sub-Saharan African Countries.

It is stated that:

1)International trade is basically financed by export credits. Credit periods change depending on the properties of the exported products and the recipient countries.

2)The insurances provided by Export Credit Agencies are implicit subsidies, to the extend that the premium charged is below what it will cost at the market place for assuming the same risk.Also explicit subsidy through credits,since rates are lower than the market interest rates.

3)The subsidies may cause major distortions and their overall costs might be high.

4)Exporters who have access to the extension of guarantees have little incentives to behave in a manner to minimize the possibility of nonpayment.They have all the incentives to seek out riskier projects.

It is concluded from their study that:

To increase efficiency of these programmes the scrutiny of these by guardian authorities and natural legislatives should be increased.



The increasing cooperation between Export Credit Agencies and multilateral development agencies (like the World Bank) is a positive move towards achieving efficiency of Officially Supported Export Credit Agencies's functions.

**Byatt(1982)** examined the economic aspects of export subsidies and export credits on British economy and especially analyzed the arguments that the export credits and subsidies support industrial policy and create employment. Several conclusions can be drawn from his study:

- 1) There are no clear justifications to discriminate in favour of capital goods sector by providing a general subsidy on its exports.
- 2) Applying export promotion programmes so as to match other countries programmes is not an economic argument. Since subsidizing exports and extending export credits always have costs and these will be compensated by higher taxation.
- 3) There is little evidence that the capital goods of export business won with the help of subsidies generate significant follow-on orders or other marketing advantages.
- 4) It is always very difficult to determine to which industries and firms, the promotion programmes should be applied.
- 5) Export -promotion programmes (export credit and subsidies) are very expensive ways of reducing the rate of unemployment in a country.

### **(III)-2-Analyses Done By Considering The International Trade**

**Holden(1989)** analyzed the role of US Eximbank in exploiting overseas opportunities and stated that:

- a) US Eximbank is far behind the competition existing in international markets in terms of export-financing.
- b) US Eximbank should offer a variety of export-promotion programmes and should become self sufficient.

Holden reached to these conclusions through an analysis of international markets and other Export Credit Agencies 's performances and reviewed the surveys done about American exporters.

**Letovsky(1990)** studied the role of Export Credit Agencies in today's competitive international markets and evaluated the performance of ECA's functions of covering political and commercial risks, extending credits in the form of mixed or whole (tied-aid). The implications that can be drawn from the paper: ECAs are efficient tools of building competitive advantage for domestic exporters but they cause increasing economic costs and an exporter from a country which is not providing export financing programmes faces disadvantages in international markets.

#### (IV)METHODOLOGY

##### (IV)-1-Objective Of The Study

The objective of the study is to measure the short-term efficiency and effectiveness of buyer credits (direct credits extended by Turkish Eximbank) and preshipment credits extended as direct credits.

##### (IV)-2-Modelling

Two regression models are constructed :

###### MODEL I:

The objective is to measure the short term effects of country credits on the change in the value of exports. The country credits have been given to several countries by Turkish Eximbank. (See Table VII), to observe the agreement, application and deadline for usage dates of these credits.)

The percentage of change in the amount of export value that is made from Turkey to various countries is taken as the dependent variable, the percentage of change in the growth rates of these countries are taken as independent variable and another independent variable ( dummy variable ) is used to indicate that for some countries credits are given; i.e( dummy:1) for some countries credits are not given. (dummy:0).

The regression equation is:

$$(Y_2 - Y_1) = A + B*(X_2 - X_1) + C*(Z)$$

(Y<sub>2</sub>-Y<sub>1</sub>) : The percentage of change in the value of exports.

: C1 in the output of Minitab( software package used)

(X2-X1): The percentage of change in growth rates of the importer countries.

: C2 in the output of Minitab.

( Z ) : Dummy variable; 0 or 1.

:C3 in the output of Minitab.

#### MODEL II:

The objective is to measure the short term effects of preshipment credits that are given to different type of commodity groups.(See Table (VIII) ).

The percentage of change in the value of exports of different commodity groups , is taken as the dependent variable and dummy variable is used as the independent variable to indicate that to some commodity groups , preshipment credits are extended, and to some commodity groups preshipment credits are not extended.( 1 ,if preshipment credits are given, 0 ,if not.)

The regression equation is:

$$(Y2-Y1)= A + B*(X)$$

(Y2-Y1): The percentage of change in the value of exports according to different commodity groups.

C1 in the output of Minitab.

X ) Dummy variable (0 or 1)

C2 in the output of Minitab.

#### MODEL III:

To model one another independent variable is added.(See table (XI)).

The regression equation is:

TABLE (VII)

---

COUNTRIES *****	AGRM DT *****	APPL DT *****	DLN USG *****	QUANTITY *****
USSR(I)	18-4-1989	26-5-1989	1-2-1990	150 Million
USSR(II)	28-7-1989	11-6-1989	16-3-1990	150 Million
USSR(III)	20-12-1990	3-6-1991	25-4-1992	300 Million
ROMANIA	15-5-1990	26-7-1990	10-9-1991	50 Million
SYRIA	3-8-1990	15-9-1990	15-5-1990	15 Million
Algeria	25-10-1990	7-12-1990	31-12-1991	100 Million
Bulgaria	20-12-1990	29-1-1991	31-12-1991	50 Million
Albania	1-12-1991	5-3-1991	5-1-1992	15 Million
Tunisia	14-8-1991	18-11-1991	15-1-1993	40 Million

---

\*AGRM DT: Agreement date

\*APPL DT :Beginning of application date.

\*DLN USG: The deadline for usage of credits.

SOURCE : Turkish Eximbank .

TABLE ( VIII )

---

PRESHIPMENT CREDITS ACCORDING TO SECTORS *****	1989 (Million TL) *****	1990 (Million TL ) *****	1991 (Million TL) *****
TEXTILES & LEATHER	534.023	469.289	331.328
STEEL & IRON	150.909	622.032	424.864
FOOD	82.169	168.688	109.209
MCH & ELECTR	44.459	239.349	185.033
CHEMICALS	155.653	323.713	129.462
OTHER	185.808	573.413	283.144

---

SOURCE: Turkish Eximbank,

$$(Y_2 - Y_1) : A + B*(X_2 - X_1) + C*(Z) + D*(K_2 - K_1)$$

(K<sub>2</sub>-K<sub>1</sub>) :The percentage of change in the value of TL with respect to currencies of the countries involved in the data.  
: C4 in the output of Minitab.

#### (IV)-3-Data

The period of 1989-1990 has been used to gather data since at the time of the study the data for 1991 was not available. The application of country credits and preshipment credits are very recent in Turkey , this shortenes the period of study.

The data needed for the calculation of the percentage of change in the value of exports and the percentage of change in the growth rates of the importing countries in model I, are given in table (IX) , together with the dummy variables used.

The data of model II is given in table (X) , the percentage of change in the amount of exports of different commodity groups together with the dummy variables.

The data of model III is given in table (XI). The percentage of change in TL's value with respect to other currencies of the other countries currencies involved in the data are added as independent variables to the equation.

#### (IV)-4-EMPRICAL RESULTS

The results of the regression equation are displayed in the Table ( XII ) :

TABLE ( XII )

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MODEL I:  $C1 = 6.3 + 4.16 C2 - 10.9 C3$   
           (0.51) (1.69)    (-0.32)

R-sq: 9.5 %           Adjusted R-sq: 3.9%

MODEL II:  $C1 = 36.1 + 95.2 C2$   
           (2.16)    (-1.59)

R-sq: 19.1%           Adjusted R-sq: 12.4 %

MODEL III:  $C1 = 14 + 4.53 C2 - 42.1 C3 + 6.273 C4$   
           (0.93)    (1.38)    (-0.55)    (-1.37)

R-sq: 9. %           Adjusted R-sq: 3.3 %

The t-ratios are given in the parantheseses below the equations

---



#### MODEL I:

C1 is the dependent variable and C2,C3,C4 are independent variables.C2 seems to be the most significant independent variable effecting the equation.C2 is the amount of percentage of the change in the growth rates of countries that are importing from Turkey.C3, (the dummy variables put to indicate that to some countries , there has been country credits given) does not have any significant effect on the dependent variable. Only the independent variable C2, has a significance level of 9.7 % , the export credit variable is not significant at all.The sign of t-ratio is negative.

As a result of the above argument , the percentage of change in exports is not effected by the country credits that are being given to some of the countries involved in a trade relation with Turkey.

The R-sq of the output, indicates that only 5 % of the data can be explained by the help of the equation that is constructed. This shows the fact that the export credits donot have any effect on the change in exports of Turkey. ( The Minitab output is in Appendix A ).

#### MODEL II:

C1 is the dependent variable and it is the percentage of change in the value of exports that are classified according to the commodity groups , C2 is the dummy variable that is used to indicate that to some commodity groups preshipment credits are given and

to some preshipment credits are not given. It is observed that C2 has no significant effect on c1, the dependent variable. This shows that the preshipment credits that are being given to several commodity groups do not have any effect on the change of exports. The significance level for the variable C2 is 11.8% , and its sign is negative.

R-sq value is 19.1% , indicating that only 19.1 % of the data can be explained by the regression equation. ( Output of Minitab programme is given in Appendix B.)

#### MODEL III:

To model I ,C4 is added as independent variable. C4 is the percentage of change in the value of TL with respect to other currencies of the country's involved in the data.

C4, has a very insignificant t-ratio value ,together with a high probability of error.(p: 17.4 %) ,indicating that it doesnot have an important effect on the dependent variable, in our case the percentage of change in the value of exports made to foreign countries.

Most significantly effecting variable is, C2(t-ratio:1.88,p:6.88%), the change in the growth rate of countries. The dummy variable doesnot have a significant effect again,(t-ratio:-0.66,p:51.1 %). See Appendix C, for the output of the Minitab programme used.

## (V) CONCLUSIONS

The objective of the study is to analyze the Turkish export-financing system. The export-financing systems of other countries have been briefly described , the related literature about the subject is reviewed and regressions are run to measure the short-term effects of credits, (country and preshipment credits).

The emprical results indicate that;neither the country credits, nor the preshipment credits have significant short-term effects on the exports. In addition , their signs are negative rather than positive , contradicting the objective of the export credit system.

The important aspect of the issue is that ,the export credits are often used as tools for political objectives.Credits may be based on economic reasons. The strongest argument for justifying the application of export-credits might be ; the necessity of export-credits , to penetrate new markets and to provide national exporters with a competitive advantage in international markets. Looking at the issue from this perspective, the first credit extended to SSCB has been successfull in this sense, the export value of Turkey to SSCB showed an increase of 160 % , (Hazine ve Dis Ticaret,July 1991) during 1988-1989, however showed a decline of 24% in the following period of 1989-1990 (Hazine ve Dis Ticaret ,July 1991)

Longer term studies are needed to reach to definite conclusions about the efficiency of our export credits.The shortterm

effects of the export-credits are insignificant, indicating that they are not efficient tools to improve exports in a short-term period.

However, the export credits of Turkey, are costly for the Turkish government since the country credits are long-term credits and they are given with interest rates below the market rates.

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## APPENDICES

APPENDIX A  
MODEL I

MTB > REGRESS C1 2 C2 C3

The regression equation is  
C1 = 6.3 + 4.16 C2 - 10.9 C3

Predictor	Coef	Stdev	t-ratio	p
Constant	6.30	12.32	0.51	0.612
C2	4.165	2.462	1.69	0.097
C3	-10.85	33.41	-0.32	0.747

s = 64.03      R-sq = 6.0%      R-sq(adj) = 2.0%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	2	12359	6179	1.51	0.232
Error	47	192713	4100		
Total	49	205072			

SOURCE	DF	SEQ SS
C2	1	11926
C3	1	433



APPENDIX B  
MODEL II

MTB > regress c1 1 c2

The regression equation is  
C1 = 86.3 - 95.2 C2

Predictor	Coef	Stdev	t-ratio	p
Constant	86.32	39.95	2.16	0.052
C2	-95.22	56.50	-1.69	0.118

s = 105.7      R-sq = 19.1%      R-sq(adj) = 12.4%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	1	31733	31733	2.84	0.118
Error	12	134058	11171		
Total	13	165791			

Unusual Observations

Obs.	C2	C1	Fit	Stdev.Fit	Residual	St.Resid
11	0.00	366.0	86.3	39.9	279.6	2.86R

R denotes an obs. with a large st. resid.

APPENDIX C  
MODEL III

The regression equation is  
 $C1 = 1.2 + 4.60 C2 - 22.6 C3 - 0.275 C4$

Predictor	Coef	Stdev	t-ratio	p
Constant	1.18	12.75	0.09	0.927
C2	4.604	2.459	1.87	0.068
C3	-22.63	34.16	-0.66	0.511
C4	-0.2749	0.1990	-1.38	0.174

s = 63.41      R-sq = 9.8%      R-sq(adj) = 3.9%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	3	20017	6672	1.66	0.189
Error	46	184931	4020		
Total	49	204947			

SOURCE	DF	SEQ SS
C2	1	11912
C3	1	432
C4	1	7673

## TABLES

TABLE I)

## ARRANGEMENT MATRIX OF INTEREST RATE MINIMA 1976-1990

I II III

## CREDITS FOR 2-5 YEARS

	I	II	III
JULY 1976	7.75	7.25	7.25
JULY 1980	8.5	8	7.5
NOV 1981	11	10.5	10
JULY 1982	12.15	10.85	10
CTB 1983	13.35	11.55	10.7
JULY 1984	12	10.7	9.85
JANUAR 1985	10.95	9.65	8.8
JULY 1986	9.55	8.25	7.4
JANUAR 1988	10.15	8.85	8
JULY 1988	-	9.15	8.3

## CREDITS FOR 5-8.5 YEARS

	I	II	III
JULY 1976	8	7.75	7.5
JULY 1980	8.75	8.5	7.75
NOV 1981	11.25	11	10
JULY 1982	12.4	11.35	10
CT 1983	12.4	10.7	9.5
JULY 1984	13.6	11.9	10.7
JANUAR 1985	12.25	11.2	9.85
JANUAR 1986	11.2	10.15	8.8
JULY 1986	9.8	8.75	7.4
JANUAR 1988	10.4	9.35	8
JULY 1988	-	9.65	8.3

## CREDITS FOR 8.5-10 YEARS

	I	II	III
JULY 1976	-	-	7.5
JULY 1980	-	-	7.75
NOV 1981	-	-	10
JULY 1982	-	11.35	10
CT 1983	-	10.7	9.5
JULY 1984	-	11.9	10.7
JANUAR 1985	-	11.2	9.85
JANUAR 1986	-	10.15	8.8
JULY 1986	-	8.75	7.4
JANUAR 1988	-	9.35	8
JULY 1988	-	9.65	8.3

I: Relatively rich countries

II: Intermediate countries

III: Relatively poor countries

SOURCE: OECD, (1990), 4th edition.

TABLE (II)

## NAME AND ORGANIZATIONS OF EXPORT CREDIT AGENCIES

COUNTRY	NAME	ORGANIZATIONS
*****	*****	*****
AUSTRALIA	EXPORT FINANCE AND INSURANCE (EFIC)	DIVISION OF STATUORY AUTHORITY
AUSTRIA	OESTERREICHISCHE KONTROLLBANK AG (OKB)	REPORTING TO MINIST OF FINANCE
CANADA	EXPORT DEVELOPMENT COOPERATION	OWNED BY CANADIAN GOVM
DENMARK	EKSPORTKREDITRATET	GOVERNMENT AND COUNCIL RESPONSIBLE
FRANCE	COFACE	SEMI PUBLIC JOINT STOCK COMPANY
GERMANY	KFW	CONSORTIUM COOPERATION MAJORITY OWNED BY GOVM
ITALY	SACE	PUBLIC FINANCIAL INSTITUTION
JAPAN	EID	DIVISION OF GOVERNMENT MINISTRY
NETHERLANDS	NCM	PRIVATELY OWNED CONSORTIUM
SWEDEN	EKN	AGENCY OF SWEDISH GOVERNMENT
US	EXIMBANK	INDEPENDENT AGENCY OF THE GOVERNMENT

SOURCE: OECD, (1987), third edition.

TABLE (VI)

## MEDIUM-LONG TERM EXPORT CREDITS (1981-1990)

\*\*\*\*\*

## MEDIUM AND LONG TERM CREDITS (US BILLIONS)

1981	82.8
1982	85.6
1983	67.5
1984	58.2
1985	47.8
1986	46.1
1987	47.1
1988	44.6
1989	53.1

## LONG TERM CREDITS

1981	21.5
1982	20.4
1983	13.9
1984	11.4
1985	8.4
1986	9.4
1987	8.3
1988	12.9
1989	10.1

SOURCE: Worldbank IDP, Deminguc Aslı, Kunt (1990)

TABLE (IX)

FOR THE PERIOD 1989-1990

COUNTRIES *****	DEL EXPORTS(%) *****	DEL GROWTH(%) *****	DUMMY *****
W.GERMANY	40.87	4.5	0
BEL-LUX	19.54	4	0
DENMARK	17.57	1.3	0
FRANCE	23.87	2.8	0
NETHERLANDS	6.88	4.3	0
U.K	20.94	0.7	0
IRELAND	31.58	5.9	0
SPAIN	51.91	3.7	0
ITALY	13.09	2	0
PORTUGAL	76	4.3	0
GREECE	11.2	2.8	0
AUSTRALIA	-43.9	1.2	0
AUSTRIA	35.88	4.6	0
U.S.A	-0.31	1	0
FINLAND	-26.47	5.2	0
SWEDEN	-4.76	0.5	0
SWITZERLAND	69.36	2.6	0
ICELAND	0	0.1	0
JAPAN	2.38	5.7	0
CANADA	0	0.9	0
NORWAY	48.15	1.8	0
NEW ZEALAND	-28.37	1.3	0
BULGARIA	-62.96	-0.4	0
CZECHOSLAVAKIA	64.1	1.5	0
HUNGARY	24	4.6	0
POLAND	45.07	0.3	0
ROMANIA	56.6	-5.3	1
USSR	-24.68	2.4	1
IRAQ	-51.91	-2.2	0
IRAN	-11.76	-4.8	0
SYRIA	9.6	11.3	1
S.ARABIA	1.1	0.2	0
JORDAN	28.37	-5.6	0
MOROCCO	100	2.2	0
ALGERIA	-15.19	2.3	1
LIBYA	-3.08	0.7	0
EGYPT	13.57	5.3	0
TUNISIA	-11.11	7.3	0
INDONESIA	66.67	7.4	0
INDIA	-4.62	5	0
SOUTH KOREA	154.17	9	0
MALAYSIA	57.14	3.6	0
NIGERIA	100	5.3	0
PAKISTAN	17.07	5.2	0
BANGLADESH	-89.29	2.6	0
SUDAN	-51.16	7.4	0
ABU DHABI	90	10.6	0
DUBAI	-57.14	10.6	0
KUWAIT	-44.91	3	0
LEBANON	-33.77	2.5	0

SOURCE:Hazine ve Dis Ticaret.Haziran 1991. International Financial  
Statistics ,1990 yearbook ,Turkish Eximbank,World Bank PBL(1990)

TABLE  
EXPORTS CLASSIFIED ACCORDING TO COMMODITIES  
PERIOD 1987-1990

COMMODITIES *****	CHANGE IN EXPORT(%) *****	DUMMY *****
LIVE ANIMALS	142.5	0
MEATS	-2.11	1
FRUITS	16.34	1
CEREALS	-94.35	1
SUGAR+CFC	3.3	1
ORES MAN. GOODS	59.16	0
CRUDE NAT BOR	0.34	1
LEATHER WEARING	86.42	1
ARTICLES TEXTILES	39.57	0
CRUDE PETROL	-60.98	0
CEMENT	365.95	0
OLIVE OIL	-73.26	1
TOBACCO	33.12	0
OTHERS	24.86	0

SOURCE: TURKISH EXIMBANK.



TABLE XI ,DELTA EXCHANGE RATE OF TL ADDED TO TABLE IX  
PERIOD 1989-1990

COUNTRIES *****	DEL EXPORTS *****	DEL GROWTH *****	DUMMY *****	DEL EXCH *****
W.GERMANY	40.87	4.5	0	-5.34
BEL-LUX	19.54	4	0	-2.44
DENMARK	17.57	1.3	0	-3.657
FRANCE	23.87	2.8	0	-4.04
NETHERLANDS	6.88	4.3	0	-3.99
U.K	20.94	0.7	0	-1.1
IRELAND	31.58	5.9	0	-1.7
SPAIN	51.91	3.7	0	-1.82
ITALY	13.09	2	0	-5.7
PORTUGAL	76	4.3	0	-6.6
GREECE	11.2	2.8	0	-16.15
AUSTRALIA	-43.9	1.2	0	-22.19
AUSTRIA	35.88	4.6	0	-3.8
U.S.A	-0.31	1	0	-18
FINLAND	-26.47	5.2	0	-4.1
SWEDEN	-4.76	0.5	0	-7.82
SWITZERLAND	69.36	2.6	0	1.42
ICELAND	0	0.1	0	-6.4
JAPAN	2.58	5.7	0	-10.17
CANADA	0	0.9	0	-19.32
NORWAY	48.15	1.8	0	-5.69
N.ZEALAND	-28.57	1.3	0	-21.5
BULGARIA	-62.96	-0.4	0	-90
CZECHOSLAVAKIA	64.1	1.3	0	0.28
HUNGARY	24	4.6	0	-58
POLAND	45.07	0.3	0	-18.98
ROMANIA	56.6	-5.3	1	-79.25
USSR	-24.68	2.4	1	-100.8
IRAQ	-51.91	-2.2	0	-19.32
IRAN	-11.76	-4.8	0	-12.2
SYRIA	9.6	11.3	1	-10.1
S.ARABIA	1.1	0.2	0	-19.32
JORDAN	28.57	-5.6	0	-6.18
MOROCCO	100	2.2	0	-58.9
ALGERIA	-15.19	2.3	1	-37.95
LIBYA	-3.08	0.7	0	-19.32
EGYPT	13.57	5.3	0	32
TUNISIA	-11.11	7.3	0	-9.48
INDONESIA	66.67	7.4	0	-58
INDIA	-4.62	5	0	-28.29
S.KOREA	354.17	9	0	-30.5
MALAYSIA	57.14	8.5	0	-61.2
NIGERIA	100	5.3	0	-43
PAKISTAN	17.07	5.3	0	-55.8
BANGLADESH	-89.29	2.6	0	-27.51
SUDAN	-51.16	7.4	0	255.54
ABU DHABI	90	10.6	0	-56.33
DUBAI	-57.14	10.6	0	-19.32
KUWAIT	-44.91	3	0	-19.32
LEBANON	-33.77	2.5	0	-54.62

SOURCE:IFS 1990,HAZINE VE DIS TICARET(1991),T.EXIMBANK.