STRATEGIC RENOVATION OF LONG-TERM EXPORT CREDIT MANAGEMENT SYSTEM IN KOREA

By Gilsang Woo

Thesis

Submitted to
School of Public Policy and Global Management, **KDI**in partial fulfillment of the requirements
for the degree of
Master of Business Administration

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ABSTRACT

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Competition among Export Credit Agencies (ECAs) in industrialized countries is becoming more severe as trade war, credit competition and the global integration of the capital markets are accelerating. At the same time, most ECAs are confronted with a rapidly increasing demand for financing from developing countries that driving forward to economic development by external financing. Certainly, developing countries could induce foreign direct loan, however, their weakening credibility and heavy external debt burden deterred them from getting new capital. In this sense, long-term export credit gives merits not only to the capital goods exporting countries but also to capital goods importing countries. There is a recent tendency that the volume and price of one unit of capital goods such as industrial plants, ships, power generators, communication systems and airplanes are growing larger. Also, because obtainability of long-term export credit and it's terms and conditions are critical to winning an international bid, most countries are, as a matter of course, willing to promote their export of capital goods for their continuous economic development.

While the country risk of importers are greater than ever before due to the financial crisis, ECAs' business environment has become more harsh. ECAs should manage their risks abroad more effectively because they have to maintain their sound balance sheet. Basically, their fund comes from the nations' taxpayers or from the international financial market as foreign debt.

However, the long term export credit system will remain a powerful engine to promote exports of capital goods to developing countries over the next century. In order to strengthen the role as an ECA, many developed countries are renovating their system, in accordance with the OECD's "Guidelines on Export Credits".

Korea Export-Import Bank (KEXIM) is also encountering new challenges as the external business environment changes.

In this regard, KEXIM's role and function in the 21st century, as one of the advanced ECAs, should specialize and concentrate more on providing efficient medium and long-term export credit to support the national goal of export-oriented economic growth and economic cooperation abroad. Moreover, as we are now in the process of economic restructuring to overcome the financial crisis, KEXIM has the opportunity to reorganize its workflow, business scope, business units and risk management approaches. KEXIM should develop more sophisticated financing technique, such as project financing, co-financing, tied aid financing, multi-sourcing financing, etc.

Another objective for KEXIM in the 21st century is to become a global coordinator to enhance the nation's economic and political negotiating power abroad, similar to U.S.EXIM Bank or Japan EXIM Bank. In order to accomplish this, KEXIM should pursue continuous self-renovation and self-renewal.

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I. INTRODUCTION

Korea's officially supported long-term export credit system has contributed to the nation's rapid increase of capital goods export since its establishment in 1976. Moreover, the system supported the nation's political goal of heavy industrialization and export oriented economic development. Since its establishment, foreign buyers could import machinery, ships, plants, etc. which were made in Korea. During the last 20 years, Korea's officially supported long-term export credit system was managed by the Export-Import Bank of Korea.

Korea's capital goods export increased to 96.8 billion dollars in 1998 (73.2 % of total export) from very small amounts in 1976, while total exports expanded to 132.3 billion dollars from 7.7 billion dollars during the same period. The Bank's financial support also increased to 5.4 billion dollars in 1998 (5.6 % of total capital goods export) from 0.1 billion dollars in 1976. With a well-functioning export credit, export insurance, and other incentive systems supporting heavy industrialization, Korea became the top shipbuilding and exporting country in the world in the mid-1990s. The optimal allocation of production factors such as labor and capital was the key factor in the successful implementation of heavy industrialization.

However, after Korea joined the OECD in 1997, the strategic environment

This article is entirely the writer's individual opinion and responsibility, and not directly related with the official policy of the Korea Export-Import Bank.

changed ¹. This means that the activities of official ECAs (Export Credit Agency)

With the joining of OECD, Korea EXIM Bank had to participate in the Export Credit

were open to international society, so they should respect the global standard. Moreover, after experiencing the financial crisis and economic restructuring in 1997~1998, so many things – including market openness and the concept of protection, financial system, even economic moral and econo-political goals – have completely changed.

I would like to summarize these two big changes as follows.

First, KEXIM Bank has to compete directly and more severely with ECAs in advanced countries. While WTO prohibits export subsidy except official export credit, OECD member ECAs should provide the same terms and conditions following the OECD common rule, Guidelines on Export Credit, CIRR². While the terms and conditions of officially supported export credit is near the market rate, KEXIM's support merit is smaller than before.

Second, KEXIM Bank's financial support is more exposed to the country risks of developing countries since the Asian financial crisis due to their heavy indebtedness, vulnerability to international hot money, and mismanagement of foreign debt.

Third, with the economic and industrial restructuring in Korea, KEXIM Bank must reassess their financing program. They should reconsider their role and

Group (ECG), and respect every common rule and regulation regarding officially supported export credit. Particularly, the common rule would be revised by the experts' meeting on interest, experts' meeting on country risks evaluation, where KEXIM staff attended regularly.

2 CIRR: Commercial Interest Reference Rate fluctuates with the basis of the yield rate of Treasury Bill of U.S. If the CIRR is lower than Euro Rate or LIBOR, the exporter has the advantage, but if it is higher, the exporter does not always have the advantage

	1993	1994	1995	1996	1997	1998	1999. 6.
CIRR (%/y) (above 8.5 year)	6.45	8.83	6.83	7.10	6.90	5.78	6.64
Eurorate (%/y) (\$)	3.50	7.00	5.38	5.59	5.84	5.12	5.65

Source: Monthly Research Report, KEXIM, 1999.8.

function, e.g. whether they will continue to support mainly big enterprises, and how to increase their support to small-and-medium-sized companies. They should redefine their business scope with large-sized commercial banks that experienced M&A, Foreign Direct Investment, in order to share risk-taking burdens. It means that KEXIM has to compete with domestic or international commercial banks even though the present law prohibits competition with domestic commercial banks. Commercial banks with their increased capital could expand their business scope to include the medium term export credit. The only bottleneck for commercial banks would be sovereign risk taking issues.

Lastly, but more importantly, KEXIM is encountering the basic question of whether it should continue to support Korean exporting enterprises which are sometimes entirely owned by a foreign company.

International money market seemed to be under restructuring after the shock of the Asian financial crisis, followed by the Russian and Latin American financial crises. Korea is still under economic and financial restructuring to overcome the ordeal of economic disorder. KEXIM Bank is also trying to contribute to the national goal, resurrection of 'export', as well as other ECAs could and would do, and also reset its role and function to support national economic development and international economic cooperation.

In my thesis, I will try to review the critical changes in the business environment surrounding KEXIM Bank, and suggest our new vision and strategy to overcome these challenges. I will focus on new ideas and new concepts of how to expand KEXIM Bank's role and function. I do hope my small work will help reset the Bank's strategic direction for the 21st century.

II. EXPORT CREDIT AND ECONOMIC DEVELOPMENT

A. Basic function of ECAs

During the 1920s and 50s, ECAs in developed countries were primarily conformed to the export insurance concept. So, the United Kingdom firstly established ECGD (Export Credit Guarantee Department) under the Ministry of Commerce in 1919³. Other European countries also set up similar organizations to promote their exports by public export insurance services.

However, after 1945, Direct-lending system was introduced as another main function of ECAs as the end of World War II provoked huge new investments in developed countries as well as in developing countries. In this context, the United States established the Export-Import Bank in 1945, followed by Japan in 1950, and several European countries⁴.

The most important activities of the U.S.EXIM Bank then were its 'direct loan' program, which provided credits to foreign importers of U.S. goods (including capital goods) and services.

Many countries, however, view international trade and, in particular, export promotion as important components of their national economic policy and have used export credit as an instrument of that policy. Officially supported export

Gerhard, W. Schneider, "Export-Import Financing", Chapter 5. Foreign Credit Insurance, 99.112~134.

⁴ David P.Baron, "The Export-Import Bank", an economic Analysis, Preface ix~xi.

credit expanded considerably during the 1970s and 80s, which led to international rivalry. During that period, one country harshly matched the other country's export financing. Generally, this export credit has been provided at lower interest rates than market rates, and it was a very effective and powerful instrument for export promotion when market interest rates were extremely high during the late 1970s and early 80s.

Although the U.S. opposed export credit subsidization as for a long time they advocated free trade and fair competition, even U.S.EXIM Bank had to react other country's concessional export credit in order to keep their market share. From the beginning of the 1990s, U.S. led the endeavor to reduce the subsidization factor in export credit by inducing global compromise through OECD conferences and other international meetings. The endeavor partially succeeded in making a consensus to minimize the subsidization by establishing 'the Arrangement on Guidelines for Officially Supported Export Credits' among the OECD member countries, say the participating countries in ECG (Export Credit Group). However, the issue of officially supported export credit still remains controversial.

However, while U.S. EXIM Bank continues its main function of 'direct-lending program', many European ECAs transformed themselves into other specialized organizations of export insurance, and conceded the direct lending function to commercial banks. In this case, European export insurance institutes took the role of final risk taker representing their governments, and gave a guarantee to direct lending organizations. Under the guarantee or insurance coverage, commercial banks could easily afford to give long-term project

Fein berg, "Subsidizing Success: The Export-Import Bank in the U.S.Economy", pp.23~27.

financing to risky developing countries. Otherwise, the export insurance organization could make-up for the commercial banks' loss by the difference between the fund raising cost and subsidized lending interest rates. Frequently, export insurance organizations were covering the country risk (sovereign risk) through the government account.

In this regard, I would say that the ECAs, or officially supported export credit agencies, have been transformed step by step through historical environment changes and external challenges. Worldwide ECAs, mostly established in developed countries, could be classified into 3 types as follows⁵;

• **European**: ECA function is separated by commercial banks for direct lending, and by the export insurance organization for insurance and guarantee cover. Basically, they thought the role of the government should be restricted within insurance coverage for political risk, and tried to separate the financing function from the insurance system.

(France, U.K, Italy, Sweden, etc.)

• <u>American</u>: One organization (U.S.EXIM Bank) handles direct lending, guarantees, and insurance at the same time. The U.S is relatively an easier place to raise capital in the money market than other countries, and also the need for export insurance is not relatively urgent.

(U.S, Canada, Australia, Taiwan, Korea - before 1992)

• <u>Japanese</u>: One organization(Japan EXIM Bank) handles Direct lending and guarantees, while the other organization (MITI: Ministry of Industry and Trade – Japan, KEIC: Korea Export Insurance Corporation) handles export insurance at the same time. Japan also followed the U.S's style as they thought a direct lending system might be more effective than insurance system.

(Japan, Germany, Korea - after 1993)

2-1. European Type (priority on insurance)

Country	Organization	Main function	Established
Italy	Mediocredito centrale	Direct lending	1952
	SACE	Insurance/guarantee	1927
France	BFCE	Direct lending	1946
	COFACE	Insurance/guarantee	1928
Sweden	SEK	Direct lending	1962
	EKN	Insurance/guarantee	1933
Finland	FEC	Direct lending	1956
	FGB	Insurance/guarantee	1963
Hungary	HEIB	Lending/guarantee	1994
	MEHIB	Insurance	1994

⁵ See 'Yellow Book' of OECD, which introduces the role and function of ECAs in the world.

2-2. American Type (priority on direct lending)

Country	Organization	Main function	Established
U.S.	EXIM	Lending / insurance /	1945: export credit
		guarantee	1953: export
			insurance
			1961 guarantee
Canada	EDC	Lending / insurance /	1944: export
		guarantee	insurance
			1969: export credit
Australia	EFIC	Lending / insurance /	1956: export
		guarantee	insurance
			1971: guarantee
			1974: export credit
Taiwan	EXIM	Lending / insurance /	1979
		guarantee	
PRC	EXIM	Lending / insurance /	1994
		guarantee	
Romania	EXIM	Lending / insurance /	1992
		guarantee	
U.K.	ECGD	Make-up the interest	1920:relending facility
		rate gap	1921: export
		/ insurance	insurance
			1961: guarantee
			1972: support IR gap
Austria	OKB	Refinancing / insurance	1950: export
		/ guarantee	insurance
			1981: export credit

2-3. Japan type

Country	Organization	Main function	Established
Japan	EXIM	Lending/ guarantee	1950
	EID/ MITI	Insurance / guarantee	1930
Germany	KfW	Lending/ guarantee	1950
	HERMES	Insurance / guarantee	1926
Korea*	EXIM	Lending/ guarantee	1969
	KEIC	Insurance / guarantee	1992

^{*} Korea EXIM Bank managed direct lending and insurance at the same time until 1992, but the function separated when KEIC (Korea Export Insurance Corporation) was established in 1992

Export credit system has basically been contributed to the expansion of trade

regardless of its short or long term⁶. The short-term export credit system, which is usually dealt with by commercial banks, greatly helps the ordinary trade payments by LC (letter of credit) transaction, D/P, D/A, Usance, etc. In this sense, the short-term export credit system has contributed much for more convenient and reliable payments. In this case, the commercial banks are more concerned with the credit risks of importers, issuing banks Letter of Credit (L/C), Letter of Guarantee (L/G) rather than the importing country's political risks.

However, the medium and long-term export credit system in most developed countries has contributed to the expansion of their capital goods' exports especially since World War II. This system has let their heavy machinery industry develop more rapidly under the merit of the economy of scale. It has also contributed not only to trade expansion between developed and developing countries but also to mutual economic cooperation by transfer of capital and high technique to developing countries⁷. In most cases, medium and long-term export credit was given under officially supported export credit offered by its government.

Export credit agencies are instruments of national policy implementation. This is because, firstly, long term export financing requires an enormous amount of capital, and therefore it is not easy for commercial banks to do so in a country whose capital formation is not abundant. In these countries, the main sources of financing come from taxpayers through the government budget, as well as from

⁶ Gerald W.Schneider, above-mentioned material, pp.31-38.

^{7.} John E.Ray, "Managing Official Export Credits", pp.5-7. But it could be discussed further since some developing countries are considering such capital inflows as a type of economic invasion.

⁸ 우 길상, '주요 국별 신용도평가기법의 최근 동향', 조사월보, 한국수출입은행, 1997.1. 한국수출입은행, '국별모라토리엄 배경과 채무재조정', 1999. Pp.2-6.

the international capital market.

Secondly, commercial banks are too vulnerable to importing countries sovereign risk⁸, which would be realized by importing countries' 'moratorium' on their foreign debt. Since every commercial bank is a profit-chaser, no commercial bank will take such a risk without a certain guarantee from somebody, for example, a government body.

There are several specific characteristics of heavy industry. The need for a huge initial investment in the beginning stage which might be raised from domestic savings or foreign capital, the need to secure an export market which might substitute for a limited domestic market, and the need for financing, which enables importing country to import huge amounts of capital goods with the condition of deferred payment basis, would be some of them.

During the period when the commercial interest level was high, officially supported export credit was an effective promoter to enhance competitiveness in trading capital goods. In order to proceed with a risky project in a certain country where the political risk was very high, commercial banks couldn't give long-term credit to the project. In this case, the government was willing to take the sovereign risk concerning long-term credit⁹.

While experiencing two oil shocks, the credit war among exporting countries became more severe, because export competition among industrialized countries escalated to boost their domestic economies. Especially, competition in terms and

⁹ Country risk is the most serious bottleneck in capital flow to the developing countries. Most of ECAs are developing their own risk evaluating methodology in order to minimize their bad debts.

conditions of their export credit increased, as these were critical to win the international bid. Fortunately, there have been earnest attempts to mitigate competition among OECD member countries since the beginning of the 1990s.

Trade committee in OECD devoted themselves for more than 10 years to solve these conflicts, and compromised to formulate 'The Arrangement on Guidelines for Officially Supported Export Credits' 10. This common rule is aimed at fair competition with same terms and conditions among member countries. Moreover, this rule is recommended to non-member countries that manage export credit systems. This rule basically prevents over competition under the same terms and conditions. Under this common rule, most Export Credit Agencies are keeping to their national policy and basic stance of promoting their export of heavy industrial goods and heavy industrial projects.

The value of officially supported medium-long term credits in OECD countries fell from an average over 5 % of OECD exports of manufactured goods in 1985 to about 3.2 % in 1992.

The below data are only for medium-long term export credits with a repayment period of one year or more. Certainly, the majority of export credits is for short-term in most countries. However, medium-long term export credit is more critical

¹⁰ We call it the 'Helsinki Package', which followed from the 'Wallen Package'. It's basic principles: those for expo1992rt credit should be based on open competition and the free play of market forces, and those for tied aid cr1993edits should provide needed external resources to countries, sectors, or projects with little or no access t`10 market financing, ensure best value for the money, minimize trade distortion, and contribute to developing effective use of these

2-4.Export credits as a percentage of exports of manufactured goods

	All participants	U.S.	U.K	France	Japan	Others
1985	5.1	10.4	5.2	19.0	2.8	1.9
1986	3.5	5.0	3.1	14.8	3.5	1.5
1987	3.1	4.2	2.6	13.1	2.3	1.6
1988	2.8	3.4	2.9	6.7	2.1	2.2
1989	3.4	4.7	8.9	6.0	2.4	2.0
1990	2.3	3.0	2.0	4.3	1.6	2.0
1991	3.2	4.3	2.0	4.5	1.2	3.3
1992	3.2	n.a	n.a	4.5	n.a	n.a

Source: OECD, Export Credit Financing Systems in OECD member and non-member countries, 1998

for capital goods' export. While total export volume grows year by year, the percentage of medium-long term export credit is decreases a little even though the volume increases.

Moreover, the function and role of officially supported medium-long term export credit becomes more important as the system covers the market imperfections and market failure¹¹. The imperfections in a capital goods market

resources., <John. E. Ray, above-mentioned material, pp. 85. >

This is because the project might be too large, its duration too long, or the risk too great.

Commercial banks may be ignorant of conditions in foreign markets. In such instances the intent of official support is to make the market work better. That is, to see to it that resources are allocated as if the market imperfection did not exist. Market imperfections and self-defense are

may make a project unattractive to commercial banks. This is because the project is too big, too risky, and the duration too long. In such an instance, the intent of official support is to make the market work better. Market imperfections or market failure are the most frequently referred to reasons for instituting and maintaining an officially supported financing system in industrialized countries.

B. KEXIM Bank

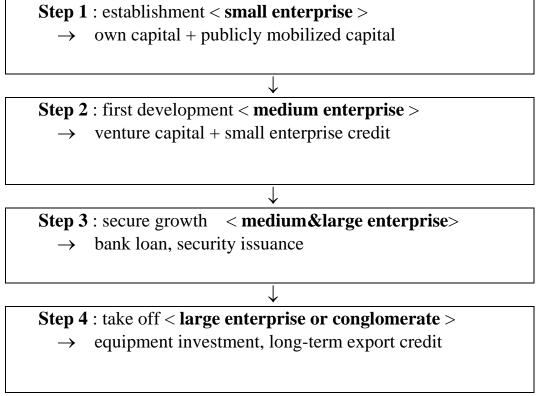
Korea Export-Import Bank (KEXIM) was established in 1976 for the specific purpose of enhancing economic cooperation with foreign countries and promoting Korea's export of heavy and chemical goods (capital goods) by supplying medium and long term export credit and various kinds of guarantees or export insurance. As most developed countries have been managing this system, Korea also established the same one in order to accelerate heavy industrialization and their exports at the beginning of the 1970s. During the 1980s and 90s, Korea's medium and long term export credit system was one of the most effective political tools to promote the country's export of heavy industrial goods, such as ships, various types of plants, and machinery.

Korea has achieved rapid economic development and high growth rate of exports since the 1970s. Mainly, governments 'export oriented development policy' drove this. The establishment of KEXIM Bank was in line with the

the most frequently cited reasons for instituting and maintaining the 'officially supported export credit system'., < John E Ray, above mentioned material, pp.8. >

government's heavy industrialization and export policy. Moreover, such a role was very common in most developed countries after World War II.

2-5. Financial need by export oriented enterprise's growth



Source: writer arranged

Heavy industrialization has many advantages in the process of economic and industrial development. It can raise the nation's industrial level higher, make it more sophisticated and capital intensive by its backward and forward extension effects. Heavy industrialization is usually led by the nation's government as it initially needs huge capital.

When we talk about the development of an enterprise, we can imagine it's

beginning stage as a small business, then medium size, and finally a big company or even a conglomerate. During each step, the company needs paid-in-capital, borrowed money, and officially supported finance (when it is eligible).

Moreover, when a company wishes to concentrate in an export market, the company will count on short-term export credit from its major trading commercial bank. And when the company becomes bigger and concentrates more on capital goods exports, it will need medium and long-term export credit in order to compete with developed countries

In this case, the obtainability of officially supported export credit would be crucial to win the international bid for big projects. When we imagine the need for export credit in volume or character by the development of an export-oriented company, we can summarize as follows;

2-6. Volume of financial need by exporting company

Amount of financial need

^	< Step 1: Establishing stage:	< Step 2: > First developmen	<step 3:="" t=""> Secure growth</step>	< Step 4: > Take off stage	
	Own capital	Bank loan, Venture capital, Small company credit	Project financing, security issuance, public mobilization	Medium-long-term Export credit, foreign investment	
	<small company=""></small>	< small-medium company >	< large company>	< conglomerate >	

22

KEXIM Bank has contributed to the increase of capital goods export, various overseas businesses and, as a result, higher industrial structures since its establishment in 1976, in line with the government's development policy of heavy industrialization. Since industrialization in the 1980s and 90s, Korea has ranked as the 1st or 2nd shipbuilding country.

Since Korea joined OECD member countries in 1996, Korean official support for export credit has been affected by the "common rule" among OECD member countries. Certainly, the common rule was invented to prevent excessive competition among industrial countries and promote fair competition. The basic concept of the common rule is reducing the government subsidy and commercializing the terms and conditions of the export credits

2-7. Contribution to the Korean economy

Millions of dollars

	1976	1986	1996	1997	1998
Total export	7,715	34,714	129,715	136,164	132,313
Capital goods	-	18,022	92,970	98,438	96,868
Export (A)					
KEXIM	110	705	4,797	5,031	5,465
financing(B)					
B/A (%)	-	3.9	5.2	5.1	5.6

Source: Korea Tariff Office

.

The historical definition of officially supported export credit is governments'

support to promote the export by the type of "direct lending", "guarantee", and "insurance". ECA is an abbreviation of Export Credit Agency in a country. In most countries, ECAs exist not only as a government's special body (U.S.EXIM Bank, ECGD in U.K.), but an independent organization established by special law (KEXIM). Korea has two kinds of ECA. One is KEXIM that manages direct lending, and the other is KEIC (Korea Export Insurance Corporation) that handles an export insurance scheme, including short-term export insurance. The two institutes were merged in KEXIM Bank, until KEIC separated from KEXIM in July 1992.

The "Arrangement on Guidelines for Officially Supported Export Credits" of OECD member countries (more precisely, participant countries to this arrangement) defines that the arrangement shall apply to all official support for exports of goods and/or services, or financial leases, which have repayment terms (as defined in Article 8) of two years or more. This is regardless of whether the official support is given by means of direct lending, refinancing, interest rate support, guarantee or insurance. The arrangement also applies to official support in the form of tied aid.

Korea EXIM Bank's role is based on the framework of supporting national economic development. Officially supported long-term export credit is to promote capital goods' export by offering relatively favorable long-term credit to supplier or buyer. The forward and backward extension effects of this officially supported export credit system are summarized below.

Effects on national economy:

- higher structure of export industry
- enhanced economic efficiency by value added and hard currency earnings
 - forward and backward effects to other industries
 - Effects on trade policy;
 - variation in export market
 - secure the export market
 - deviate from importing country's non-tariff barrier
 - Effects of economic cooperation;
 - contribute to importing country's economic development
 - contribute to importing country's creation of employment and upgrading national income
 - diplo-economic cooperation between two countries.

C. KEXIM Bank's programs

Korea EXIM Bank administers various financing programs to facilitate exports of capital goods, technical services, overseas investment, major resources development, imports of essential materials and issuing guarantees. The Bank also operates the Economic Development Cooperation Fund (EDCF), South and North Korea Cooperation Fund, which were entrusted by the government ¹².

¹² 'The Export-Import Bank Law', Law 5982, revised this on 24 May 1999.

2-8. KEXIM Bank's Programs

Financing service	Category	Terms and conditions
Export Credit	- Export loan	Minimum interest
	- Direct loan	rates under
	- Relending	OECD guideline
	facility	
Overseas	- Overseas	LIBOR rate +
Investment Credit	Investment	spread
	- Major resources	
	development	
Import Credit	- Major resources	LIBOR rate +
	import	spread
Small-Medium	Small-Medium	OECD Guideline
company	company's	
Credit	capital goods'	
	export	
Short term export	- repurchase of L/C	
Credit *		

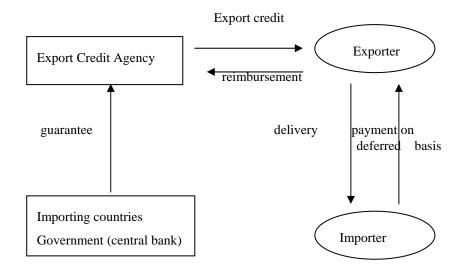
^{*} This credit was newly provided after Korea's financial crisis to support commercial banks' purchasing of export concerned various bills

KEXIM Bank also provides guarantees to other banks and foreign importers.

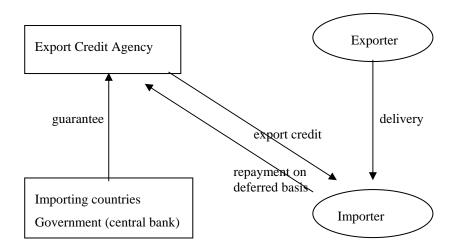
These guarantees include Financial Guarantee to co-financing banks, Advance

Payment Guarantee, and Performance Guarantee to foreign importers.

2-9. Standard financing format of ECA (supplier credit)



Standard financing format of ECA (buyer credit)



KEXIM's main lending function is composed of supplier credit or buyer credit relating to Korea's capital goods export. As the world trade volume is growing and each trade volume is enlarging, the need for financing one project is also

increasing. One of KEXIM's main supporting sectors is the plant market. We can

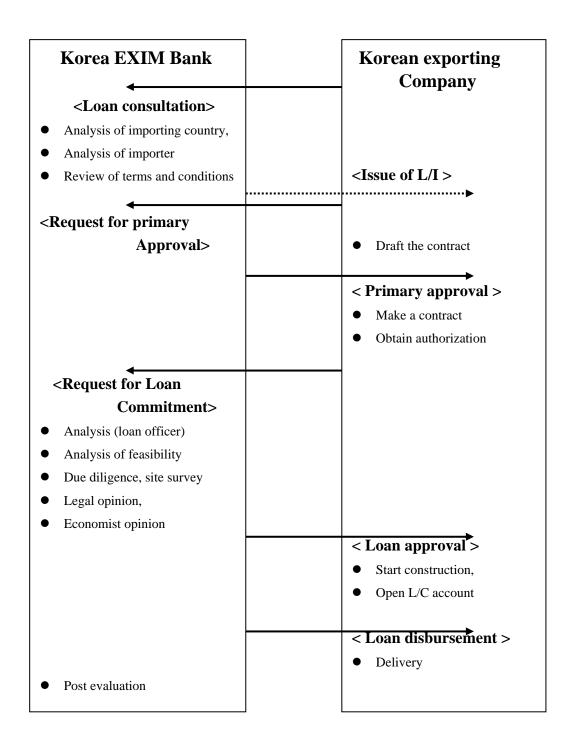
see that each plant transaction gets bigger and bigger each year. Recently KEXIM approved a loan to a petrochemical project in Mexico. The project cost is around 1.2 billion dollars.

The loan approval process is more sophisticated and longer than that of a commercial bank. When a company is preparing a contract with a foreign buyer, certainly with the export contract for KEXIM's eligible project, the company sets a primary consultation with KEXIM. This is to know whether KEXIM would provide a direct loan for the project. When KEXIM considers the project is suitable for export credit and confirms the amount is within the country's exposure limit, KEXIM issues a Letter of Intent (L/I).

Usually L/I is necessary for the bidder to attend the bidding, as the importer asks financing arrangement to the exporter for such a big project. When the company wins the contract, the following process is going on. KEXIM analyzes the project's profitability, country risk, importer's credibility, etc. Then primary approval, main approval, first disbursement will follow.

When we are talking about 'risk', we cannot disregard credit risk, country risk, market risk, and liquidity risk. Credit risk is directly related with the importing company's credibility, the project's profitability. Country risk is related with the country's political or sovereign risk. When the country risk is high, we should anticipate the country's possibility of declaration of moratorium, restriction of remittance, nationalization etc. In this sense, the country risk is more critical to the ECAs since most of the collecting rights of their loan are located abroad.

2-10. Loan approval process



The major factors of the country risk depend on stability of the country's economic, political, and social situation, the economic development capacity, forecasts of their BOP, foreign reserves, foreign debt, relations with other countries, etc.

Evaluating the country risk is not simple work. There are many tools and methodology models. KEXIM adopted the reporting methodology for their country risk evaluating system until the end of 1997.

However, KEXIM invented their own new methodology to make up for the weakness of the reporting system. KEXIM's new evaluating system is a mixture of quantitative and qualitative analysis. They evaluate all the country's economic statistics with programmed checklist matrix with 50 % weight, and evaluate the country's quality of political, economic sector with 50 % weight.

The details of the quantitative analysis matrix cannot be explained since the matrix is organized in a computer program. In any case, the final goal of country risk evaluation is to keep the Bank's balance sheet sound and optimally allocate the restricted resources.

Now, we evaluate most of the developing countries once a year and give them a grade among A, B, C, D⁺, D⁰, D⁻, E, seven categories. Principally, we restrict any financing to a country graded E because their country risk is the highest. The country risk grade which KEXIM evaluates is used for the Bank's loan policy. In addition, the Bank also establishes the country's maximum exposure limit by its country risk grade.

2-11. KEXIM's country risk evaluation methodology

Quantitative ar	nalysis (50 %)	Qualitative analysis (50 %)
• Domestic	GDP	Stability and prospects
Eonomy	GDP per capita	of economy
	GDP growth	
	Budget/GDP	
	Gross	• Prospects of socio-
	investment/	political situation
	GDP	
International	ВОР	
Economy	Foreign	
	reserves	
	Export/import	
	Export growth	
	Total trade	International relations
	volume	and attitude to foreign
	Total debt/GNP	debt
	Total	-
	debt/export	
	D.S.R.	
	Short term debt/	-
	Total debt	

On the other hand, KEXIM could refer to the grade that OECD Expert's meeting decided at the same time. By the OECD common rule, OECD's country risk grade should be adopted to calculate the export insurance premium. Certainly the country risk grade given by each ECA would be used exclusively for their own loan policy, because each ECA has its own political goal depending on the nation's economic and industrial development level.

III. ENVIRONMENT CHANGES AND NEW CHALLENGES SINCE THE ASIAN FINANCIAL CRISIS

A. International challenges and responses

Since the beginning of the 1990s, world economic globalization was accelerated by the open market policy of ex-Soviet Union and Eastern Europe countries. Emerging market in Asia and Latin America also contributed to this trend by their rapid trade growth and capital inflow. It could be defined as economic liberalization in trade, investment, capital flow that meant collapse of the borders in every sector.

Reflecting this historical new trend, the trade volume especially between developed and developing countries increased rapidly. Developing countries export of manufactured goods to OECD countries increased to 445 billion dollars

Capital inflow to developing countries

Economic liberalization trend provoked replacement of financial aid by trade, and a huge inflow of export credit to developing countries. The net capital inflow to developing countries from developed countries increased to 326 billion dollars in 1996 from 100 billion dollars in 1990.

Moreover, from the beginning of the 1990s, public loans decreased while private capital inflow to developing countries increased in line with the boom of FDI(Foreign Direct Investment). It was a very meaningful alteration as public loans to developing countries had been the main capital pipeline until the late 1980s. From the viewpoint of financing type, direct investment or portfolio investment in developing countries was greater than commercial loans, while project financing was being regarded as an important financing pipeline to developing countries.

These new trends continued until the Asian financial crisis and its contagion into Latin America. In this sense, there are critics who say that private lenders had been too aggressive in giving credit to emerging markets and developing countries without any rational project appraisal evaluation or assessing their absorbing capacity. If not so, they should be blamed that they tried to get short-term profit by portfolio speculation¹⁴.

Griffith-Jones's. "Global Capital Fliws," Macmillian press, 1998.

Fisher's. "Lessons from a crisis", Economist, 1998, Oct 3. Jeffrey Sachs, "Global Capitalism" Economist, 1998. Sept. 12.

In other words, the rapid inflow of private capital into developing countries boosted the investment boom in receiving countries, but a sudden tide-out of private capital from developing countries mortally hit the economy that could have fallen into a coma-like situation. In this sense, the continuing public capital inflow into developing countries is recognized again as a more reliable money channel supporting their steady economic development.

Actually, after the financial crisis in Asia or Latin America, the dependence on public capital (including IMF stand-by loan, governmental public loan, ECA's export credit, etc) in developing countries was growing rapidly while they were overcoming the financial crisis.

Continued privatization

The trend to accelerate privatization is overwhelming not only Eastern Europe countries in a transition economy, but also industrialized countries in the Western Hemisphere. This new trend is based on the assumption that economic growth and enhancing national wealth will depend on developing the private sector. In order to upgrade efficiency in managing governmental corporations, there would be many strategic renovation schemes, including privatization, sellouts, etc.

Conversely, the government's role, which for a long time has been regarded as a locomotive engine for faster economic development, is changing. It is asserted that the government's role should be restricted only to the scope of making a generally favorable environment for domestic and foreign investors. The government's endless support to nearly bankrupt government owned companies

would be unendurable. In any case, we have watched many privatization cases in governmental corporation sectors. During the privatization procedure in developing and emerging countries, many developed countries became involved directly and indirectly. And, they experienced a rapid increase of project financing cases, in the petrochemical and natural gas industry, electricity generation, communication and transportation sectors, etc.

These trends give a meaningful hint that the business scope for ECAs, major MNC, or big capital goods exporter is more enlarged. And the opportunity of international capital movement will also be increased eventually.

Usually, for their privatization program, they are in need of huge capital, which could be mobilized from the domestic or international capital market. They are also in need of a huge amount of equipment renovation that would cost a lot and give another big project to all international bidders.

We cannot overlook that ECAs are encountering a more vulnerable market, depending on the country's country risk and economic soundness. This is why the loan officer should more cautiously handle the privatization project in the emerging market¹⁵.

The merge of capital market and export credit market

Most ECAs supplied 85~90 % of the contract amount by their own account until the late 1980s, with some exceptions, such as a case of co-financing with another financing body. However, while big project financing prevails in the

¹⁵ See the rapid privatization program in East European countries from the beginning of the 1990s. Some projects were regarded as profitable, but many projects were regarded as unsuccessful.

market, the smaller portion of ECAs' financing becomes common step by step.

Maybe it is because of the introduction of new financing techniques, and various financial designs in the big project market. Also we can assume that a big project would be too large to be financed by a single ECA or single financial institution.

Even though one ECA or a commercial bank gives only a certain portion of the export credit, the remaining need for capital might be easily raised by the issue of bonds, CP, etc. from the international capital market. The important thing is that this trend is becoming more common for bigger projects. In the case of financial design, the merge between export credit market and international capital market will so accelerate in the near future that we can foresee that the business scope of conventional long-term export credit might shrink. This means, ECAs that handle export credit should concentrate more on high-risk projects.

I think that the merging of the two markets will give advantages to the exporting country as well as the importing country, because the funding burden to ECAs will be moderated, while various financial designs will give more project opportunities to the importing countries, at a very reasonable cost.

B. After the Asian financial crisis

Competition in capital market

Most governments in developed countries have set as their political goal the acceleration of economic growth by promoting exports, especially with aggressive support from their ECAs. This is a rational policy turn around because their main export items are mostly capital and high-tech intensive goods. However, there

have always been other financial tools and support, say, commercial banks' long-term export credits which are covered by the government's export insurance organization, World Bank's partial guarantee, so there has been a greater possibility of fund raising directly from the international capital market. Moreover, advanced private insurance companies in developed countries have already entered the insurance market covering long-term export credit. From the commercial banks' viewpoint, they must find another profitable financing channel to replace emerging markets and on-going financial crisis countries.

Competition among OECD member countries also became more severe as they exchanged all business information by the common rule, and tried to establish another common rule to regulate the acceptance of credit risks¹⁶. This means that every activity and all terms and conditions among OECD member countries has become more transparent. The only competitive factors left are limited to the condition of mortgage, or calculation of risk coverage premium.

Greater credit risk

After the Asian financial crisis, every country became exposed to the contagion and herding effects of panic in the international financial situation. Moreover, the harshest victims of these symptoms were private importers in developing countries including many official importers. They rapidly lost their credibility; and encountered difficulty in obtaining their governments' guarantee for their imports. Government owned corporations were more serious since were

¹⁶ See 'The Arrangement on Guidelines for Officially Supported Export Credits', OECD.

Enhanced role of ECAs

Shrinking from commercial banks giving long-term export credit or project financing to the private sector on the country, enhanced the role of ECAs .

This is because the credibility of private importers was rapidly downgraded and they lost their viability to get financing. Under this situation change, private importers might impulsively be depending more on financing from ECAs¹⁷. When the capital market is more stable, even the private importer whose credibility is relatively low certainly could get financing from commercial banks. Here we can see the new tendency for cooperation between ECAs and export insurance bodies to be stronger than before. In another sense, this means that competition between the two bodies becomes more severe. While ECAs are enhancing their role, export insurance bodies are also aggressively accepting short-term export insurance as well as medium- long term insurance, which covers sovereign risks. So ECAs are beginning to rearrange their interest rates system, by increasing them to the market level, and also trying to increase the portion of co-financing with commercial banks.

However, ECAs are encountering a big dilemma between maintaining a sound financial status, because their funds come from the government budget, while at the same time not competing with commercial banks, as they must remain the last resort of lender's status.

¹⁷ See 'International Trade Finance' 1999. 7. 8., The portion of ECA loans to developing countries from their total capital inflow has been increasing since just after the Asian financial crisis.

Changed debt portfolio in emerging countries

The ratio of borrowings from commercial banks and other private institutions in emerging countries, including developing countries, is shrinking rapidly as Russia declared a "Moratorium" and most Latin American countries experienced a financial crisis. Actually, the amount of emerging countries' new borrowing decreased to US\$ 38 billion in 1998 from US\$195 billion in 1996. Moreover, the composition of debt portfolio changed as medium and long-term public debt decreased while short-term private debt increased. It seems as if international institutional investors and individual investors were more inclined toward short term transactions than before.

C. New trends in developed ECAs

Growing support for short-term export credit

There was a compromised consensus among G-7's finance ministers at the London Meeting in February, 1999 that the Asian financial crisis contracted expansion of export credit so as to diminish world trade. Consequently, it followed that some critics reasoned that the shrinking world trade would be harmful for the enhancement of global economic development. So they agreed to redouble support for short-term export credit by substituting it for medium and long-term export credit for the time being.

In line with this trend, U.S. EXIM Bank showed small changes in their policy of staying as a lender of last resort, which plays only a supplementary role to big

risky project financing projects, to acting as a major financing pipeline for every transaction because financing circumstances deteriorated. Most developed ECAs are showing changes similar to U.S.EXIM to enhance financial support for short term export credits, including short-term export insurance, rather than risky project financing.

Increasing multi-sourcing and cooperation among ECAs

Worldwide globalization trends enable importers to raise funds from various sources. This is quite different from previously when they depended only on one or two financial sources from their domestic market. Anyhow, big importers that contract mega-projects, are becoming able to obtain multi-sourcing financing from multiple ECAs, commercial banks, even international financial organizations. In another way, this could be explained that there are many participants in a huge project depending on supplier countries.

The Mexican refinery corporation case is a typical example to explain this kind of recent trend. The Mexican refinery corporation, PEMEX, wishes to rebuild their refinery units at a cost of US\$ 1.2 billion. The financing designer, Bankers Trust, arranged four financial sources¹⁸. As for the multiple sources, Korea EXIM Bank, U.S.EXIM Bank, HERMES of Germany will give long-term export credit, and Bankers Trust will arrange the issuance of Mexican bonds in the international capital market.

There are two advantages for both project procurer and ECAs. Firstly, project

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¹⁸ 'Project appraisal report', BTAlex. Brown, Financial Advisor and Arranger, Apr. 1999

procurers can speed up the project, as financing arrangement is easier than single sourcing. ECAs also feel comfortable, as the more joiners there are, the more diversification of project and sovereign risks there are. However, multi-sourcing has adverse effects since it would be difficult to compromise common terms and conditions among related ECAs. So, in this sense, there is a strong assertion that ECAs should cooperate with each other because ECAs might be involved more closely than ever before.

The Export Credit division in OECD has concluded a very meaningful compromise among ECAs, that participating ECAs will charge the minimum premium fee when they are involved in official support for their exporters, which will help prevent severe competition among ECAs. Furthermore, there is a growing tendency for European ECAs to contract a cooperation agreement with each other to accelerate multi-sourcing financing.

IV. STRATEGIC RENOVATION FOR THE 21ST CENTURY

As we have already reviewed the basic role and function of KEXIM, other ECAs, and changes in the business environment for the 21st century, we must now figure out our win-win strategy, to strengthen our contribution to the national and international economic development and prosperity.

In order to define the right way that fulfills the goal, we have to redefine the present situation, refocus on the main weakness, reorient the right direction, research the right passage, and finally, restructure the existing organization or existing function, if necessary.

A. Strategy for reorganizing the major functions

The domestic and external business environment surrounding Korea's ECA has completely changed, because of the continued globalization of the world economy through trade and investment. And also this is because of the shift from national financial allocation policy to market oriented commercial financing policy in the most of the countries. Financial disinter mediation is where corporate borrowers can access capital market funds directly, and not rely on intermediary banking institutions. Consolidation of banks and other types of financial intermediaries, and the explosion in the size and type of financing instruments available in the capital markets, also could be pointed out as new trends

surrounding ECAs¹⁹.

The nations political goal has also been changed into how to overcome the economic and financial crisis by industrial restructuring and promoting export. Concerning the promotion of export, commercial banks' financing capacity has shrunk so dramatically since their non-performing credit piled up that many commercial banks and financial institutions have merged.

Korea's banking industry will be fully open to foreign banks and M&As will transform the commercial banks into a more large size. Conversely, WTO is asking for a more narrow ECA function, and reduction of governments' role in the type of official subsidy.

In this sense, KEXIM Bank's mission should be changed and enforced to support the national political goal, which is "how to support Korea's export more effectively?". I would like to suggest some solutions: Firstly, KEXIM Bank's traditional financing scheme should concentrate more on certain categories of the political goal. This is to complement "market failure" which means mismatch of terms and conditions, and "government failure" which means deterioration of the market autonomy by increasing non-performing debts and lowering profitability of commercial financial organization.

The basic function of KEXIM Bank should focus more on supplying medium and long-term credits. Other functions, for example import credit or repurchase of export bills, which could be covered by commercial banks, should be discontinued.

¹⁹ Martin A.Kamark, President and Chairman of U.S.EXIM Bank, "Role of ECAs under the changing world economic environment", 1996.7

B. Strengthening the roles to supplement market failures

Focusing on medium-long term export credit

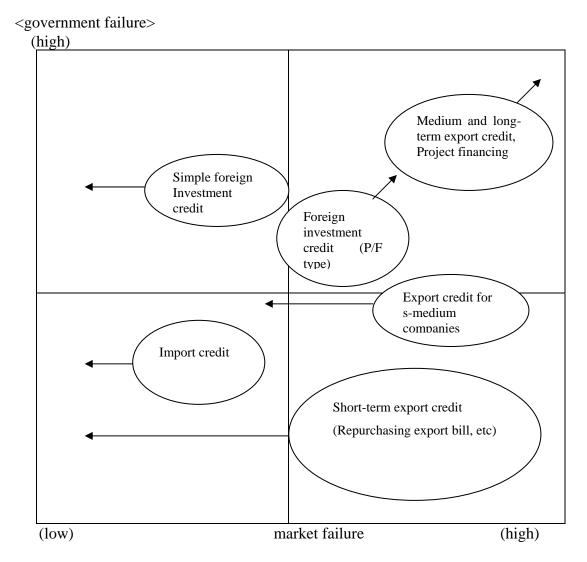
A diagram I suppose with an X-axis for market failure and Y-axis for government failure, medium-long term export credit and project financing will effectively cover the above two failures. In this regard, this type of credit should be enforced. On the other hand, import credit or short-term export credit which cover low failures, crude foreign investment which is not in the type of project financing, and other type of credit for small and medium size company's export, should all be divested of.

This is why the contribution effects of KEXIM in the region of high failure will be greater than the lower region. If KEXIM continues its role in the region of lower failure, the inefficiency will be greater. The inefficiency of KEXIM means increasing the national cost as KEXIM Bank's capital comes from the taxpayers. In this sense, the main function of KEXIM should focus more on the business that commercial banks wish to avoid.

Focusing on project financing abroad

KEXIM should be focusing more on project financing abroad. The reason is the same as that of medium and long-term export credit, i.e., to supplement 'market failure' and 'government failure'.

3-1. Strategy of merchandizing the export credits



Source: J.H.KIM, "Market failure and the role of EXIM Bank", Korea EXIM Bank,1999. 6. p.118.

In order to change KEXIM's main function, KEXIM should upgrade its total risk assessment skills, including company's credibility and country risk evaluation. Actually, KEXIM was more inclined toward supplier's credit rather than buyer's credit until the financial crisis. However, during that time, so many Korean companies lost their credibility owing to the financial crackdown that they could

not easily obtain a guarantee from their main trading commercial banks. This means KEXIM cannot depend on a guarantee of any type when they give export credit to the Korean company. This also means KEXIM is more exposed to country risk than before. In this sense, risk evaluation is becoming more crucial in deciding the loan approval.

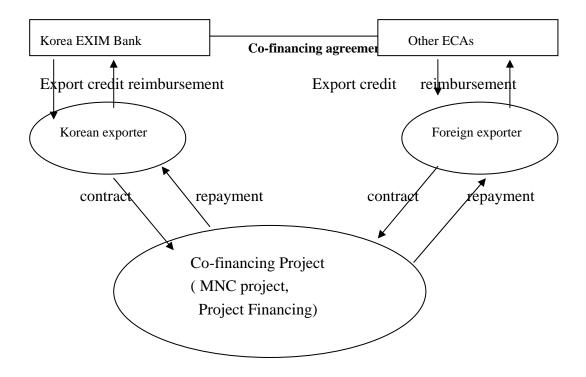
Increasing co-financing with other ECAs

Big plant projects abroad, for example, are becoming greater in amount and have longer terms in developing countries, especially in oil exporting developing countries. Sometimes, one ECA cannot take the whole risk by himself even if the country's large company promotes the project. And the other case, such a big project is usually promoted by an MNC (multinational company). In this case, several ECAs will eventually be involved, so KEXIM should actively promote cofinancing project abroad.

There are many advantages in a co-financing project: Firstly, KEXIM can easily obtain project information from co-financing ECAs as each ECA will be the last resort as far as they are concerned. Secondly, KEXIM will have the opportunity to evaluate the project's profitability with developed ECA's accumulated experience and advanced technique. Thirdly, KEXIM can share the project risk with other ECAs. This would be a great advantage of co-financing.

The only problem to promote a co-financing project with other ECAs would be the terms and conditions. However, the terms and condition are already pre-set by the OECD Guidelines on Export Credit. Certainly there would be some differences

3-2. Co-financing between two ECAs



in the fund raising cost between KEXIM and other ECAs. Even though such an extra cost KEXIM would be charged will be Korean risk premium, it should be bearable.

Co-financing with commercial banks

When we talk about co-financing, the same financial design as commercial banks will be strongly recommendable. This would be a type of rearrangement of the Korean banking industry. Commercial banks, either domestic or international, can give financing during the construction period on a short-term basis, and then the credit would be transferred to KEXIM by medium and long-term export credit.

When this type of financing is generalized, the only problem deterring the cofinancing between ECAs and commercial banks is the difference of terms and conditions. When we formulate the relevant methodology of how to match the two sides, synergy effects between them would be expected.

Enforcing export credit guarantee

KEXIM should expand new financial tool to enforcing various guarantees, including bid bond refunding guarantee, performance guarantee, export credit guarantee, etc.

Most of the ECAs are encountering the squeeze of financial resources. KEXIM also encountering the same dilemma so that expanding various guarantee systems would relax direct financing burden without incurring additional foreign borrowing. Complementary relationship between direct lending and guarantee will be forceful new model to promote the export of capital goods, depending on the type of commercial transaction in the field.

C. Strengthening risk evaluation capabilities

Most ECAs have developed their own 'know-how' to evaluate project risk and country risk, in order to optimize their decision-making regarding a certain project in a certain country²⁰. As the competition among ECAs becomes more severe and projects are more diverse, the risks are higher than ever before. The optimal allocation of their fund or optimal taking of risks would be possible when the risk evaluation is optimized.

Firstly, we should develop a more sophisticated project evaluation mechanism, to prevent the present system from extending credit under the secure risk coverage of importing country's governmental guarantee or supplier's mortgage.

In order to up-grade project evaluation skills, we could reorganize existing departments or workflow chart. Present work-flow is divided by the kind of capital goods or type of transaction, say, ship export credit dept., plant export credit dept., buyer credit dept., etc.

Here, I would like to recommend that the new organization depend on the region or terms of the financing period. More precisely, we can reorganize the department (instead, say 'business unit') depending on region, terms of the loan period. And, we can assign a loan officer, legal officer, and economist to the same team to evaluate the project more intensively fewer than three dimension analysis. When we are in need of more business units, depending on the market demands,

The experience of the last decade has led every ECA to give more attention to "country risk evaluation" and to the evaluation of project quality, especially, in cases of large value contracts. "Export Credits: Review and Prospects", CFS Discussion Paper Series, World Bank, Mar. 1993.

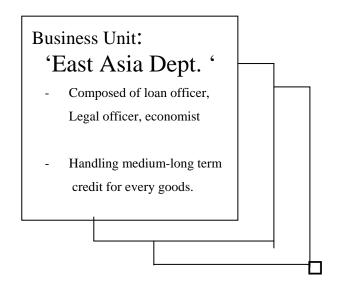
we can easily add another one.

Transforming the existing 'department system depending on exporting capital goods', into the new 'business unit system which will be composed of loan part, legal part, economist part 'will have great advantages.< my first option>. We can evaluate the project's feasibility more precisely with three-dimension analysis. We can adapt ourselves more flexibly to the change of market demand. When the plant market calms down, the ship market, for example, could boom.

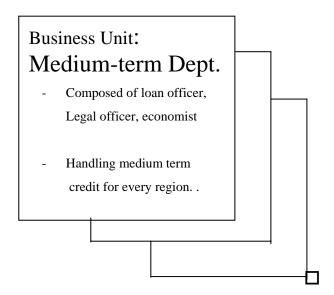
My second option is to reorganize the existing 'department system' into new 'business unit system depending on terms of loan period'. We can reset the new business unit into 'medium term unit' 1, unit 2, unit 3... and 'long term unit' 1, unit 2, unit 3,.... etc.

Secondly, I would strengthen the skills of country risk evaluation. Frankly speaking, this is not an easy task because the sovereign risk may be assessed not.

3-3. <option 1 > New Business Unit depending on the region



3-4. <option 2 >New Business Unit depending on the terms of loan period



for its absolute value but for its relative performance.

There are many methodologies of country risk evaluation, and many institutes involved in these matters. However, the most important thing is that each institute has developed its own model in order to make it suitable for its own purpose and own political goal

In this sense, I would recommend that KEXIM model be up-graded by continuous simulation and self-testing. This arduous process will complete the model completed as a perfect model to evaluate a country's current sovereign risk and forecast the future risk as well.

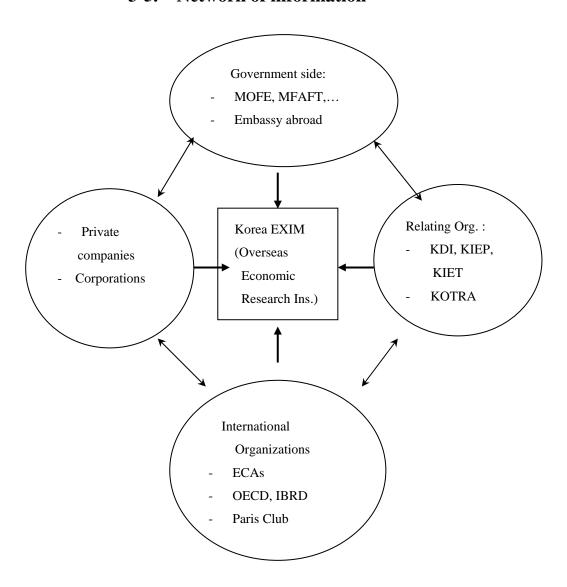
The basic procedure of country risk evaluation will be the mixture of quantitative analysis and qualititative analysis. The more personal a computer system is developed, I believe, the more sophisticated methodology will be invented in the future. And I hope that the integrated total information processing system will be helpful in figuring out the exact level of country risk.

D. Organizing information 'network' for the future

Nowadays we are working under absolute competition among nations and ECAs. Even though information regarding projects and country risk is widely distributed so fast, the institutes handling this information should be organized in order that it be shared, evaluated, organized and finally utilized on time and in the right place. This is because each institute would focus on matters it is most concerned with, but the specialized information would be more distributed.

In this sense, every institute related to export promotion (Government, KEXIM, KOTRA, etc.), foreign market, projects (corporations), risks and credibility evaluation (ECAs, International Organizations, etc) should be well connected with each other and centralized in KEXIM (especially in the Overseas Economic Research Institute).

3-5. Network of information



The network would be connected and organized by e-mail or Internet exchange system, and is highly efficient to share and centralize the information. The network channel would be a typically successful model of information globalization. Moreover, the perfect information exchange program among institutes, domestic or international, would be one of the core factors of win-win strategy in the century of globalization. This would strengthen the efficiency, transparency and fairness regarding international competition.

V. CONCLUSION AND FUTURE WORK

Future prospects of officially supported export credits may be considered from the perspective of recipient developing countries and the providing ECAs. It may be true that for most of these recipient countries, medium-long term export credit will be more accessible than a commercial medium-long tern loan in the near future since developing countries are always suffering from lack of credibility²¹. This is because we can foresee that international commercial banks will have a very limited appetite for acquiring new medium-long term assets in developing countries for the time being. In this sense, the main role and function of ECAs will be continued, even strengthened, while developing countries are in need of further capital inflows.

For a long time, WTO's intention has been to remove every trade barrier and official subsidy²² in order to accelerate a free trade system in the world.

However, a little deviation of ECAs in developed countries from the ideal goal of WTO is the generally understood pattern. The inevitable deviation from the nosubsidy policy of WTO is regarded as acceptable since its contribution to supplement the market failure and government failure has been proved.

²¹ 'Export Credits: review and Prospects' Waman S.Tambe, Co financing and Financial Advisory Services, World Bank, Mar. 1993

^{22 &#}x27;Trade or Aid?', Institute of East-West Studies, New York, 1991. The author Dr. Daniel L.Bond defines "subsidy" from the point of view of the borrower and "cost" from the viewpoint of the lender. In the future, according to this definition, "subsidy" can still be expected to be available to borrowers, but only to the extent that it can be provided without any "cost" to the lender.

From my intensive study about the 'ecology' of ECAs in this article, I cannot completely get rid of some doubts about the future role of ECAs. I agree with the great contribution ECAs made to the national or international economic development in the past. I fully understand the present role and function of ECAs. And I anticipate that their role and function will be critical for more abundant capital flows to importing countries, and be helpful in boosting risky venture industries in developed countries in the future. This is because the risky venture industry, such as space development, genetics and life industry, etc. needs huge venture capital.

However, I think that the role and function of ECAs should be reviewed regularly in order to maintain their efficiency and contribution effects. The U.S.EXIM Bank is a time limited body (sunset agency) that should be reviewed by Congress every 5 years so that their existence might be extended.

In this sense, I would like to raise some important tasks of ECAs.

First, the conventional role and function of the ECA will change in the 21st century. This means the complementation role of market failure will disappear in the future because the commercialization of ECAs will be strengthened step by step. In this regard, ECAs should be changed to an organization taking 'total risk' concerning foreign trade. Here, 'total risk' means every risk concerning direct lending, insurance, guarantee, credit risk, etc. We have to further study how to transform existing ECAs into a new body with a new role in the future.

Second, the future role and function of ECAs in the world should be integrated into an international standard or international organization. It will not

be an easy task since the national interests among ECAs vary, depending on the host country's level of industrial and economic development. However, we have to try to standardize and globalize the ECAs role and function in order to prevent exhausting competition. This should also be further studied in the future, collectively among every ECA in the world.

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