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JAPANESE TWO STEP LOANS: THE JAPANESE APPROACH TO DEVELOPMENT FINANCE*

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Abstract

Recently, there has been a lot of contraversy over Japanese Two Steps Loans (TSLs) provided by the Overseas Economic Cooperation Fund between the World Bank and Japanese administrative agencies. The purpose of this paper, is to examine the validity of the "Japanese approach" to development assistance using Japanese TSLs as an example. First, the experiences of the OECF's TSL is overviewed and the characteristics of Japanese TSLs are identified. Secondly, the problems of Japanese TSLs pointed out by the World Bank are summarized. Thirdly, I will try to justify the validity of Japanese TSLs based on the Japanese approach to development assistace. Finally, the effectiveness of BAAC loans provided by the OECF is evaluated as a case study of Japanese TSLs.

I. *Introduction*

I.1 The Development strategy of the World Bank and the Structural Adjustment Policy[1]

After the oil shocks of the 1970's, some developing countries suffered from debt problems. Initially, the problem was recognised by the World Bank as a temporary liquidity shortage. The World Bank recommendation was the short term macroeconomic stabilization policy. However, as problems persisted and became more serious, it was recognized that the lack of solvency, combined with a need for reform of the economic structure of the countries involved, would hamper sustainable economic growth. As a result, the growth oriented structural adjustment policy became a primary policy of the World Bank and the IMF. They proposed a medium term program combining structural policy and economic stabilization.

Structural adjustment policy consists of a variety of policies in various sectors such as trade, finance, and government. These policies are intended to build the resource allocation based on the market mechanism. According to the World Bank development strategy,

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[1] For the World Bank development strategy and Structural Adjustment Lending, please refer to the World Bank (1990a).

the market mechanism should be the basis for resource allocation in order to sustain economic development.

Yanagihara (1990) called the World Bank's strategy the "framework approach" to economic development. According to Hinds (1990), this strategy could be called the "level field approach" in the sense that the main policy target of the strategy is to build the "level field" where market mechanisms efficiently allocates resources among economic sectors according to their comparative advantage.

I.2 The Japanese approach to economic development and assistance for development

The "Framework approach," or "level field approach," is not completely accepted in Japan. The basic reason for disagreement with this approach stems from doubt regarding the efficiency of allocation through the market in developing countries.

The core of economic development is accompanied by a structural change in the economy developing through stages. Essential and substantial elements of economic development include: 1) transferring from non-market economy to market economy and/or 2) improving the economy from one with an insufficient market function to an economy with sufficient market function.

In developing countries, at the primary stage with insufficient market mechanism, allocating resources through the market system might not be the optimal solution to contribute to the long-term economic development. Using the term of Teranishi (1991), while resource allocation through market mechanisms in developing countries do satisfy the static efficiency, they do not always satisfy "dynamic efficiency."

If underdeveloped market mechanisms in developing countries do not achieve "dynamic efficiency" of resource allocation, government intervention could make some positive contribution to economic development. According to Hinds (1990), this "activist government view" justifies the government selection of targeted industries (or projects) and various types of policies supporting those industries.

The desired economic assistance to LDCs should facilitate the transfer of their economies from one stage of development to the next. According to the "activist government view, the planner must have a picture of the various development stages. Then, based on this picture, the planner can set the target industrial structure to be developed and determine the appropriate assistance policy which is designed to support the explicitly specified industries or projects, i.e., the ingredients. This type of Japanese aid strategy, according to Yanagihara (1990), is called the "ingredient approach."

I.3 The Purpose of this paper

Recently, there has been a lot of contraversy over Japanese Two Step Loans (TSLs) provided by the Overseas Economic Cooperation Fund (OECF) between the World Bank and Japanese administrative agencies. The World Bank claims that OECF's TSLs might distort the system of interest rates in developing countries by providing lending funds below market rates. The World Bank recommended that Japanese agencies should lend funds at market rates and not below them. Although the Japanese agencies understand the importance of the market mechanism in economic development, they do not agree with the World Bank and the IMF structural adjustment policy. The Japanese government has never succeeded in convincing the World Nank and the IMF of the viability of the "ingredient approach"

when it comes to Japanese economic assistance.

In this paper, I will overview the experiences of the OECF's TSLs (section 2) and summarize the problems of these TSLs as identified by the World Bank (section 3). Next I will try to justify the viability of Japanese TSL based on the "ingredient approach" (section 4 and 5) and evaluate by examples Japanese TSL (section 6). In my concluding remarks (section 7), I will propose how present TSL can be more appropriate in supporting the Japanese ingredient approach.

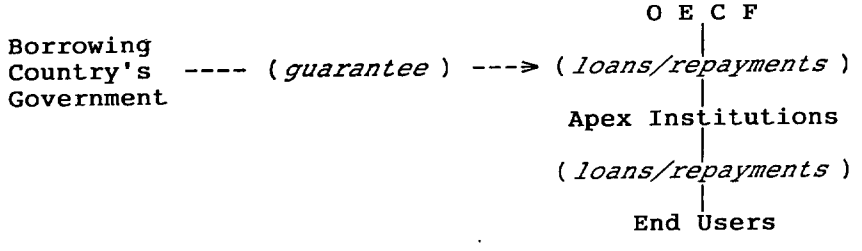
II. *The Performance and Characteristics of Japapese TSLs*

Japanese apex lending (TSL) has been conducted by the OECF and the Export-Import Bank of Japan (JEXIM). Since 1975, the role of the two organizations has been defined in such a way that the OECF is in charge of ODA and the JEXIM is in charge of commercial based loans including bank loans and buyers credits. Since both the JEXIM's TSLs and the World Bank's TSLs are provided under market based conditions, there is no serious contraversy over JEXIM's TSLs between Japanese agencies and the World Bank. In the following section, I will discuss the arguments focusing on the OECF's TSLs.

II.1 TSLs provided by the OECF[2]

The TSL provided by the OECF is formally called "Kaihatsu Kinuy Shakkan." This type of loan is intended to promote specific industrial sectors and projects which are selected by the borrowing countries' government, according to their economic and social development plans. End users of TSLs are private individuals, private enterprises, and firms who are conducting projects in the selected policy target sectors. These end user projects vary in size, business type, and geographical location. Due to technical difficulties, a large part of the TSL's operation cycle is handled by apex institutions. In the case of the OECF's TSL, the lending interest, maturity length, and reporting obligation to apex institutions, are required conditions that must be satisfied by end users and are specified in loan contracts. According to the contracts, the OECF controls the operation of apex institutions. Apex institutions are usually government development financial institutions which are highly experienced in development finance operations.

FIGURE 1



[2] II.1 and II.2 are based on Kokusai kinyu joho senta (1990).

II.2 Characteristics of the OECF's TSL

TSLs which have been conducted by the OECF since 1966 are summarized in Table 1, Table 2, and Table 3. While the share of TSLs to the total amount of loans made by the OECF accounts for only 3%, it has been increasing in recent years. The first reason for this increase is due to the Japanese fund re-cycling program resulting from current account surpluses which requires a quick disbursement scheme like TSL. The second reason is that the

TABLE 1. OECF's TWO STEP LOANS (a)

(100 millions of Yen) (b)

	1966-85	1986	1987	1988	1989	1990	1991
Loans to Foreign(c)	54,768	5,423	7,193	10,917	8,460	10,068	11,619
Government	(1,082)	(67)	(97)	(113)	(105)	(100)	(112)
Of which Two Step Loans	596	118	303	1,338	708	445	717
	(14)	(1)	(6)	(8)	(7)	(3)	(5)
OECF's Total Loans and		5,455	7,374	11,003	8,577	10,145	11,729
Equity Investment		(84)	(109)	(142)	(110)	(107)	(127)

Source: Overseas Economic Cooperation Fund, *OECF Annual Report*, various issues.
Note: (a) Commitment base. Figures in ( ) are the number of commitments.
(b) As of the end of March 1992.
(c) Provision of funds for development through direct financing to government and government institutions.

TABLE 2. LIST OF OECF's TWO STEP LOANS (a)

Project Name	Date of Approval	Approval Amount (b)	Apex Institutions
BANGRADESH			
Development Loan through The Banking System	1976. 11	1,535	Bangradesh Shilpa Bank
BRAZIL			
Serad Irrigation Project	1985. 3	12,021	Banco Central de Brazil, commercial banks
Jaiba Irrigation Project (II)	1991. 9	14,740	Banko de Desenvolvimento de Minas Gerais
CHINA			
Export Industries Promotion Program	1988. 7	70,000	China International and Investment Corporation Holdings
INDIA			
Small Scale Industries Development Program	1988. 12	19,500	Industrial Development Bank of India, and others
Small Scale Industries Development Program (II)	1991. 1	30,000	Small Industrial Development Bank of India
Small Scale Industries Development Program (III)	1991. 6	20,256	Small Industrial Development Bank of India
Housing Program for Low and Medium Income Households	1991. 1	2,970	National Housing Bank
INDONESIA			
Development Loan through The Banking System 1971	1971. 6	3,600	Bank Pembangunan Indonesia (BAPINDO), and National Commercial Banks
Development Loan through The Banking System 1972	1972. 7	1,800	BAPINDO, and National Commercial Banks
Development Loan through The Banking System 1973	1973. 7	1,000	BAPINDO, and National Commercial Banks

(continued)

Project Name	Date of Approval	Approval Amount (b)	Apex Institutions
AJDF for Indonesia Category B/PI Program	1989. 11	2,441	BAPINDO, and National Commercial Banks
AJDF for Indonesia Category B/PENC Program	1989. 11	16,955	BAPINDO, and National Commercial Banks
AJDF Category B/ Small Scale Industry and Pollution Abatement	1992. 11	16,244	National Commercial Banks, Private Commercial Banks, and others
KOREA			
Small and Medium Industries Development Project	1966. 7	5,400	Industrial Bank of Korea
Small and Medium Industries Development Project (II)	1967. 8	2,667	Industrial Bank of Korea
Small and Medium Industries Modernization Program	1987. 8	7,750	Industrial Bank of Korea, The Citizens National Bank
Small and Medium Industries Modernization Program (2)	1989. 7	6,200	The Citizens National Bank
Small and Medium Industries Modernization Program (3)	1990. 10	11,520	The Citizens National Bank, and Industrial Bank of Korea
Farm Mechanization Program	1987. 8	7,750	National Agricultural Cooperative Federation
MALAYSIA			
AJDF Category B (Malaysia Industrial Development Finance)	1988. 12	10,013	Malaysian Industrial Development Finance Behrad (MIDEB)
AJDF Category B (Bank Industri Malaysia Behrad)	1988. 12	5,890	Bank Industri Malaysia Behrad (BIMB)
AJDF Category B (Bank Pembangnan Malaysia Behrad)	1988. 12	10. 442	Bank Pembangnan Malaysia Behrad (BPMB)
AJDF Category B (Bank Pertanian Behrad)	1988. 12	10,442	Bank Pertanian Malaysia (BPM)
Small and Medium Scale Industry Promotion Program (MIDF)	1992. 5	4,660	MIDF
Small and Medium Scale Industry Promotion Program (BIMB)	1992. 5	4,660	BIMB
Small and Medium Scale Industry Promotion Program (BPMB)	1992. 5	4,660	BPMB
PAKISTAN			
Agricultural Credit Program	1992. 6	10,000	Agricultural Development Bank of Pakistan (ADEP)
PAPUA NEW GUINEA			
Agriculture Development Project	1988. 11	2,682	Agricultural Bank of PNG
PARAGUAY			
Agricultural Sector Promoting Program	1987. 3	11,847	Banco Nacional de Fomento
PHILIPPINE			
Export Industry Modernization Project	1980. 6	5,400	Development Bank of the Philippines (DBP), Technology and Livelihood Resource Center
Export Industry Modernization Project (II)	1981. 1	6,015	DBP, Technology and Livelihood Resource Center
Agro-Industry Technology Transfer Project	1982. 5	5,000	DBP, Technology and Livelihood Resource Center
ASEAN Japan Development Fund Category B (DBP)	1991. 6	20. 084	DBP
ASEAN Japan Development Fund Category B (LBP)	1991. 6	6. 686	Land Bank of the Philippines (LBP)

(Continued)

Project Name	Date of Approval	Approval Amount (b)	Apex Institutions
THAILAND			
BAAC Loan	1975. 10	2,000	Bank of Agriculture and Agricultural Cooperatives (BAAC)
BAAC Loan (II)	1977. 3	6,000	BAAC
BAAC Loan (III)	1979. 6	3,600	BAAC
BAAC Loan (IV)	1980. 8	3,300	BAAC
BAAC Loan (V)	1981. 4	3,200	BAAC
BAAC Loan (VI)	1983. 9	4,120	BAAC
BAAC Loan (VII)	1985. 10	1,013	BAAC
BAAC Loan (VIII)	1987. 9	3,672	BAAC
BAAC Loan (IX)	1988. 9	4,875	BAAC
BAAC Loan (X)	1990. 2	5,000	BAAC
BAAC Loan (XI)	1991. 9	4,696	BAAC
BAAC Loan (XII)	1993. 1	2,837	BAAC
IFCT Loan	1985. 10	4,059	Industrial Finace Corporation of Thailand (IFCT)
Export Industry Modernization Program (2)	1987. 9	3,500	IFCT
Export Industry Mondernization Program (3)	1990. 2	4,000	IFCT
Small Scale Industry Promotion Program	1987. 9	3,500	IFCT
Small Scale Industry Promotion Program, Phase 2	1990. 2	1,000	IFCT
Thai AJDF Category B	1992. 9	34,375	
Environmental Prorection Promotion Program	1993, 1	3,000	IFCT
TURKEY			
3rd Agricultural Credit Project	1989. 12	35,200	Turkey Comnuriyeti Ziraat Bankasi

Source: Overseas Economic Cooperation Fund, *OECF Annual Report*, various issues. Hearing at the OECF.

Note: (a) As of the end of January 1993.
(b) In millions of Yen.

TSL is the only available scheme to provide ODA funds to the private sector in developing countries which is expected to play a major role in economic development.

Projects arising from TSLs include the development of the agricultural sector, small and medium sized enterprises and export industries. Major borrowing countries are located in East Asia and Southeast Asia.

The first characteristic of the OECF's TSLs is that its maturity is quite long. The length of the maturity is 20 to 30 years with a grace period of 7 to 10 years. The second characteristic is that lending rates to apex institutions and relending rates from apex institutions to end users are substantially lower than market rates because its source is the Japanese fiscal loan and investment fund. The third characteristic is that the relending maturity of the TSL is longer than the standard maturity in borrowing countries. The fourth characteristic is that the categories of end users are specified by the OECF, and apex institutions can select only sub-projects in the specified industrial sectors.

TABLE 3. LENDING AND RE-LENDING CONDITIONS OF SELECTED OECF'S TWO STEP LOANS

Project Name	Lending Rate (%)	Payment Period (Grace period) (Years)	Re-lending Rate (%)	Repayment Period (Grace period) (Years)
BRAZIL				
Jaiba Irrigation Project	4.0	25 (7)	standard rate +9.0	<12 (<6)(a)
INDIA				
Small Scale Industries				
Development Program (II)	2.5	30 (10)	10.0~14.0	<10 (<3)
(III)	2.6	30 (10)	10.0~15.0	
INDONESIA				
AJDF Category B/ Small Scale Industry and	2.5	30 (10)	SBI(b) +2.5 (for small scale industry)	20 (5)
Pollution Abatement			SBI (a) (for pollution protection)	
PAKISTAN				
Agricultural Credit Program	2.6	30 (10)	8,0 or 13.0	4~10 (<5)
PHILIPPINE				
Export Industry				
Modernization Project	3,0	30 (10)	8.75	<15 (<5)
(II)	3.0	30 (10)	10.0	
ASEAN Japan Development Fund Category B (DBP)	2.5	30 (10)	WAIR (c) −2.0 ~WAIR (c) +5.0	
(LBP)			18.0 20.0	3~15 (unspecified)
THAILAND				
BAAC Loan (I)	3.65	20 (7)	8.0	<15 (<5)
(II)	3.75	20 (7)	12.0	
(III)	3.25	30 (10)	12.0	
(IV)	3.0	30 (10)	12.0	
(V)	3.0	30 (10)	12.0	
(VI)	3.0	30 (10)	9.8	
(VII)	3.5	30 (10)	9.8	
(VIII)	3.0	30 (10)	9.8	
(IX)	2.9	30 (10)	9.0	
(X)	2.7	30 (10)	9.0	
(XI)	3.0	25 (7)	9.0	<20 (<12)
IFCT Loan (Export Industry Modernization Program) (1)	3.5	25 (7)	10.5	<15 (<5)
(2)	3.0	25 (7)	10.29	
(3)	2.7	30 (10)	10.46	
Small Scale Industry Promotion Program, Phase 1	3.0	25 (7)	12.50	
Phase 2	2.7	30 (10)	12.50	

Source: Hearing at the Overseas Economic Cooperation Fund.
Note: (a) <: less than and equal to.
(b) Ordinal interest rate for small scale industry.
(c) Waited average of time deposit interest rates.

III. *The World Bank Criticisms of the OECF's TSL*[3]

III.1 The World Bank's View of the Role of the Financial Sector in Economic Development

According to the World Bank, the financial sector plays an important role in economic development. The financial sector is not the conduit through which government allocates resources to selected development targets but the function which determines resource allocation. Healthy development of the financial sector requires a market determined interest rate. In order to build a more efficient financial sector, the World Bank recommends a standardized interest rate which corresponds to the market rate and other supplemental policies designed to strengthen financial institutions.

The financial reform policy supported by the World Bank is designed based on the experience of its own operations in LDCs. It advocates the abolition of the administrative rate and promotion of competition in the financial sector. These policy measurements are consistent with the Mackinon-Shaw financial liberalization policy.

III.2 The World Bank's view of Policy Guided Finance

According to the World Bank (1990b), policy guided credit lines temporarily play a supplementary role in an imperfect and underdeveloped financial market until a self-functioning market, independent of government intervention is established. Therefore policy based lending is justified only in the case that market mechanisms can not work; such as 1) market failure, 2) imperfect information, 3) external economy, and 4) unreasonable limit to borrower's access to the financial market.

However, the World Bank (1990a and 1990b) points out the following problems caused by policy guided lending: 1) market distortions can be created by the introduction of policy guided lending intended to solve market failure, 2) a policy guided financial system limits the flexibility of the financial system in the face of change. This creates an obstacle to the effectiveness of the financial policy, 3) the problems which justify the existence of policy guided lending can be solved directly by alternative measures.

With regard administrative interest rates there are two problems: 1) the problems caused by administering interest rates at fixed levels, and 2) the problems caused by subsidized interest rates. The former includes a) the decreasing of flexibility to respond to changing economic situations, b) the weakening of the incentive of financial institutions to minimize the cost of operations, c) the creation of oppotunities for the chance of corruption, and d) the emergence of capital flight under the expectation of inflation. The latter includes a) excess borrowing, b) bias of the industrial structure towards capital intensive industry, c) corruption, d) weakening of the incentive of borrowers to repay, e) increasing government deficit, and f) discouraging saving incentive.

[3] World Bank's view of the role of financial system in development is based on World Bank (1990a) and (1990b).

III.3 The World Bank's TSL

In the 1960's and 1970's the TSL was designed by the World Bank to function as a financial scheme supporting the LDCs industrialization promotion policy. The World Bank has recommended to LDCs the establishment of development financial institutions which can work as apex institutions of TSL and has been involved in their development.

However, the World Bank style of apex lending and the OECF's TSLs are quite different from each other. First, World Bank apex lending works as a wholesale style lending meaning an apex institution has the authority to select sub-projects or end users based on the private sector's demand. While the World Bank evaluates reliability and ability of apex institutions very thoroughly, and specifies the conditions for appraisal of end users, selection of sectors is fundamentally delegated to the apex institution.

The second characteristic of the World Bank's cheme is that the re-lending rate is determined by the market rate. This interest rate policy reflects the view that economic development and industrialization should be pursued based on resource allocation through the market mechanism.

Presently, the World Bank disapproves of the Japanese style TSL. Based on 20 years of apex lending operations experience, the World Bank criticizes the Japanese TSL because of its alleged distortion of the market mechanism.

IV. *The Japanese View of TSLs with Concessionality*[4]

Japanese policy makers and the World Bank share the same idea that the financial sector is important for economic development and that LDCs should aim at the self-sustained growth based on market mechanism. They also share the same recognition that markets are quite underdeveloped in many LDCs and their resource allocation function is not so efficient as in the developed countries. The World Bank recognizes that market mechanism can not always function perfectly and that an administrative financial system is required to supplement the market mechanism in the case of market failure. Japanese policy makers well understand the importance of market mechanism for efficient resource allocation.

However, the actual operation of the OECF TSL and the World Bank apex lending clearly differ from each other. The World Bank's negative view of the OECF's TSL reflects the fact that the World Bank does not understand the interrelationship between the government role and market mechanism in the financial sector through the process of economic development, as understood by the Japanese. I will discuss the rationality and the plausibility of the OECF's TSL. I start my argument by summarizing the "role of the financial sector" in economic development.

IV.1 Economic Development and the Financial Sector

Accumulation of capital stock through continuous investment is indispensable to sustainable growth. The financial sector is assigned the function of transferring resources

[4] The Japanese policy makers view mentioned in section IV is mainly based on my interview with those concerned at the Japanese administrative agencies.

from savers to investors, who are ordinarily one and the same. How effectively the financial sector performs this function exerts a tremendous influence on an economy's ability to achieve and sustain growth.

Economists frequently point to three main functions of the financial sector in economic growth namely 1) mobilization of domestic savings, 2) efficient allocation of capital, and 3) maturity transformation.[5] The desirable financial system is one which satisfies these functions in the most well balanced manner at each stage of economic development.

Under the quite strict conditions are satisfied such that there is no information asymmetry and all contract agreements are fulfilled without any enforcement cost, the optimal resource allocation among projects is achieved through the stock market based in the expected rate of return and riskiness of projects. However such conditions are not satisfied even in the most developed countries. Asymmetric information and contract enforcement impede the functioning of the financial market in LDCs and introduce a premium to the cost of external funds. Therefore the question to be solved by policy makers is what financial system can minimize this premium under the given circumstances.

IV.2 Financial Sector Development and Marketism: World Bank's Approach

According to the World Bank development strategy[6] which aims at establishing the well functioning market mechanism, the future structure of industry should be determined based on the private sector investment. In order for private individuals to choose their investment projects according to their expected rate of return on the project, the financial market should be distortion free.

Regarding the relationship between real sector development and financial sector structural change, I ask the following questions; that is, "At what stage of economic development should the financial liberalization as recommended by the World Bank be started?" and "If the financial market is liberalized, will the real and financial sectors successfully develop?"

IV.3 Financial Sector Development and the Ingredient Approach: the Japanese Approach

According to the Japanese view of development strategy, economic development is the deepening of the industrial structure. Development policy consists of the selection of strategic industries and the designing of policy measurements to support those industries. Financial sector reform is intended to supply the new type of funds demanded for the creation or supporting of the newly selected strategic industries. In other words, governmInt intervention can make a contribution to economic development and the deepening of industrial structure through minimizing the premium of external funds.

Table 4 is a model pattern which shows how the structure of the financial sector evolves as the real sector of the economy develops. However, it is needless to say that all economic development follows the model pattern.

Financial liberalization policy in LDCs is quite different from that in developed countries where financial liberalization simply means deregulation of the existing financial markets. In LDCs, financial liberalization policy should pursue two different targets, that is, the

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[5] For these functions, please refer to Teranishi (1991).

[6] For the World Bank's strategy, please refer to the World Bank (1990b).

TABLE 4. AN IMAGE OF FINANCIAL SECTOR DEVELOPMENT

	→ → → → ECONOMIC DEVELOPMENT → → → →		
	Phase 1	Phase 2	Phase 3
Supply side factors	Low level of household income Low saving ratio Low level of assets accumulation No diversification of assets	Increase in household income Increase in saving ratio Development of assets accumulation and assets diversification	High level of household income High saving ratio Further development of asset accumulation and asset diversification
Demand side factors	Introduction of modern industries Demand for large scale long-term investable fund Conventional style of management	Development of industrialization Increase in minimum investment scale Increase in demand for long-term fund Modernization of management style Progress of disclosure	Further development of industries Increase in minimum investment scale Increase in demand for long-term fund Separation of management from ownership Development of disclosure
Market structure	Dominance of banking sector Flourishing conventional finance Marginal role of capital market	Development of no-bank financial institutions Diminishing importance of conventional finance Development of stock and bond markets	Well balanced development of financial and capital markets
Regulations on markets	Public sector interest rates Regulations on business operations Administrative capital allocation	Relaxation of interest rates control and regulations on business operations Co-existence of administrative capital allocation	Financial liberalization Deregulation of business operations Abolishment of administrtaive capital allocation
Foreign sector	Public sector borrowings Foreign aid	Public and private sectors borrowings Foreign direct investment	Dominance of private sector borrowings Protfolio investment Foreign direct investment

abolition of unnecessary regulations and the imposition of new regulations which are necessary for developing new financial markets.

IV.4 The OECF's TSL and World Bank Apex Lending[7]

Differences in actual operation between the OECF's TSL and the World Bank's apex lending reflect the differences between the Japanese approach and the World Bank approach to financial sector development.

The first difference concerns the selection of end users. While the OECF's TSL strictly specifies tightly the industry of the sub-projects, World Bank apex lending specifications of target industries is loose and apex institutions are delegated to choose the sub-project. In other words, the OECF's TSL is basically project finance, which is intended to support promotion of specific industries strategically, selected according to the development stage approach. The World Bank apex lending is the wholesale lending approach, in which the future industrial structure and development path should be determined by private sector investment incentive, based on the market mechanism.

Secondly, they differ regarding the lending interest rate. For the World Bank approach, relending must be done at the market rate, because capital allocation should be done in the market without distortion. In the case of OECF's TSL, capital allocation should be made according to the targeted industrial structure, regardless of the prevailing interest rate. The low cost TSL fund should be re-lent to the end users at low interest rates to transfer the concessionality to them.

Thirdly, they differ regarding the extent to which TSLs or apex lending funds, as a source of long-term funds, are important in the borrowing countries. Japanese policy makers implicitly share the idea that long-term funds are critically required for deepening the industrial structure and that indirect finance (banking system) should be assigned the major role of supplying the long-term funds to the LDCs with underdeveloped financial sectors. On the other hand, while the World Bank recognizes the important role of long-term funds for industrialization, it expects not only the banking sector but also the capital market, such as the stock and bond market, to play an equally important role.[8] In this sense, Japanese policy makers evaluate the importance of TSLs as the source of long-term funds more significantly than their World Bank counterparts.

V. *Plausibility of the Japanese Approach and the Appropriateness of TSL Operation*

Next, I will discuss the plausibility of the Japanese Ingredient Approach as an economic assistance strategy and the appropriateness of the OECF's TSL as financial scheme supporting the Japanese approach.

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[7] For the World Bank's TSL operations, please refer to World Bank (1990b).

[8] Recently the importance of IFC in the World Bank has been increasing. Please refer to World Bank (1990b).

V.1 Plausibility of the Ingredient Approach: Selection of the Development Pattern

The development path of the financial sector modeled in Table 3 is the image held by Japanes policy makers regarding the interrelationship between the financial and real sector at different stages of economic development' If this table is correct, the major industries shifts from agriculture to light and then heavy industrialization while the financial sector progresses from indirect finance to direct finance and from a regulated financial system to a deregulated system.

However, this approach has two problems. First, it is not likely that the development process can be simplified in this way. Table 4 stylizes the experience of Japan. On the supply side of the financial sector, the development process goes through similar steps. On the demand side of it, however, the types (such as amount and maturity) of funds demanded for investment vary depending on the intended speed of industrialization and targeted structure of industry. The domestic financial structure is also affected by easy access to foreign capital market and available financial schemes. Study of the development path of ASEAN countries suggests the danger of applying this stylized path to other countries without due consideration. In other words, the "Ingredient Approach" lacks so-called "operationability".

Secondly, in connection with the first problem, it is quite serious that the Japanese and Korean experiences of government intervention in their financial sectors have not been studied deeply enough. The result of the "Ingredient Approach" depends on whether government can play a positive role in the market as expected by "activist government view." However, it is quite difficult to design the appropriate government intervention policies without basic studies on Japanese experience.

V.2 Appropriateness of the OECF's TSL Operations

If Japanese policy makers follow the "Ingredient Approach", the OECF's TSL is made in recognition that supply of funds to the targeted industry is not sufficient or short of required level.

The major case where certain industries are not provided with sufficient funds are as follows: 1) administrative regulation and oligopolistic market structure cause the distortion of capital allocation. 2) assymetry of information cause resource misallocation such as adverse selection and as a result equilibrium rationing occurs, 3) because of externality, there is a gap between the social benefit and the borrower's private return, and 4) non availability of long-term funds.[9]

It is likely that a combination of these causes create an actual insufficiency of funds. I will discuss the effectiveness of Japanese TSLs as a remedy for each case. For the first case, the best solution is to create a competitive market which can efficiently allocate capital by abolishing government regulations and oligopolistic market structure. Providing additional funds in the form of TSLs is the second best solution. Because the prevailing interest rate is not determined in the competitive market, the effect on capital allocation of the Japanese TSL at below the market interest rate is not always distortional.

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[9] Kokusai joho senter (1989) makes similar classifications.

For the second case, a shortage of capital is caused by the insufficient capacity of financial institutions to evaluate borrowers, due to the assymetry of information. To solve the problem, laws and regulations must be introduced in order to improve the capacity of accurate evaluation. It is appropriate that the evaluation process must be subsidized by Japanese TSLs for the apex institutions.

For the third case, end users should be subsidized to cover the gap between the social benefits generated by the projects and the return an end user can receive from these projects.

For the fourth case, providing TSLs in the long-term is helpful to solve the shortage of long-term funds in the borrowing countries.

Another important problem (probably considered by the World Bank as the most serious problem) is corruption and inefficiency in the process of policy guided credit lines. The World Bank is hesitant to expand the role of such lending schemes, not because they don't understand the market mechanism is not perfect and financial markets are still underdeveloped in many LDCs, but because they are afraid of the operational inefficiency of providing credit with concessionality. Japanese policy makers recognized that operational efficiency of financial institutions is basically a problem of management regardless of the existence of the market mechanism and corruption which can be avoided by strict control of fund management.

VI. *Evaluation of the OECF's TSL: A Case Study*

The success of TSL depends on policy makers appropriately designing the target structure to be realized and selecting the industries to be developed. If a borrowing country's development plan is not reasonable and cannot achieve satisfactory macroeconomic performance, TSL can not provide successful results. Moreover, even if macroecomonic performance is successful, it should be considered whether actual TSL operations provide the additional funds to the targeted sector in the optimal manner.

Based on the arguments in the previous section, I will try to evaluate the effectiveness of the OECF's TSL using BVVA loan (I) through (IV) as an example. The following discussion is based on the information given by Sawai (1986).

VI.1 Evaluation of BAAC loans

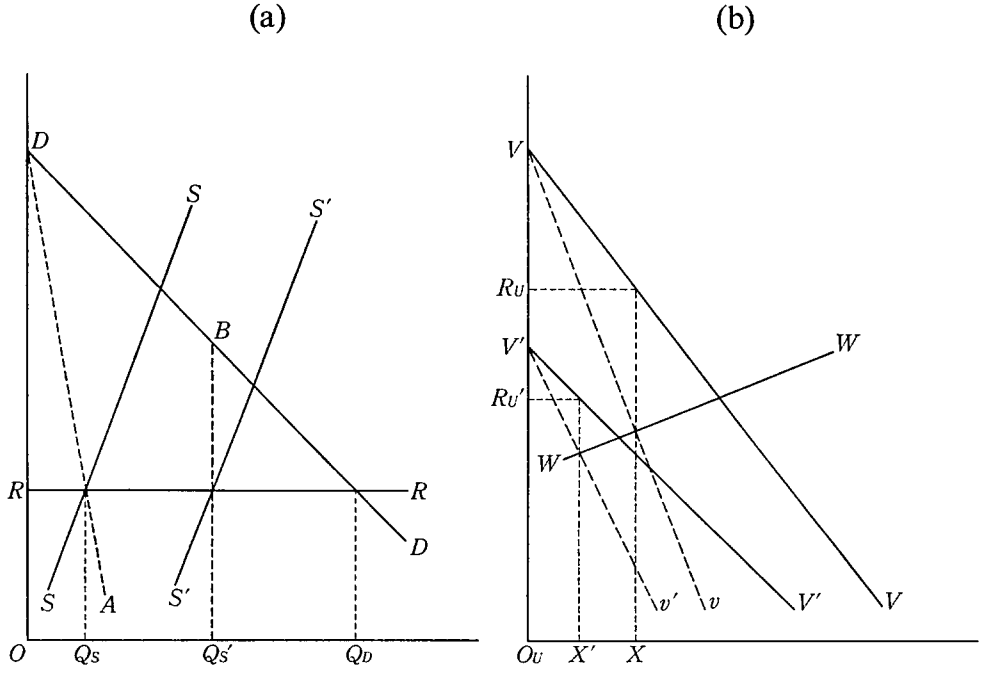
For the Thai economy, the agricultural sector has been quite important. In 1980 it formed 25.4% of the GNP and 75.4% of the total number of employed workers. It was almost obvious that the agricultural sector should play a key tole in sustaining the growth of the Thai economy.

However, the funds supply to the agricultural sector from the organized financial market (i.e. commercial banks) has been insufficient. The share of commercial banks loans to the agricultural sector was in the range of 2 to 6% of their total loans during the 1975–1980 period. In 1975, BAAC supplied funds to only 32.3% of the total number of farmers. The agricultural finance has relied heavily on borrowing from the unorganized financial market. The amount of farmers borrowings from private sources was 65.6% of the total amount of borrowings in 1975. It was considered that commercial banks had little incentive to make loans to the agricultural sector because of the technical difficulties of screening

credit users and the high operational cost of making small loans. The interest rates on credits from the unorganized financial market were usually quite high, reflecting the monopolistic market structure. Annual interest rates on informal rural credit was in the range of 30% to 50% during the late 1970's. High interest payments were a serious obstacle to the development of the agricultural sector. The OECF's TSLs were intended to break down the monopolistic structure of the rural financial markets by providing an alternative source of funds to ordinary farmers at a reasonable interest rate.

The lendings to agricultural sector, in official and unofficial financial markets, in Thailand in the late 1970's are depicted in Figure 2a and 2b. *DD* and *SS* represent the demand for loans by the agricultural sector and the supply of loans by commercial banks, respectively. The supply of loans is inelastic with respect to the lending interest rate (i.e. the slope of *SS* is steep), which reflects the mulfunction of the commercial banks' loan examination due to their lack of information about borrowers in the agricultural sector. Under the interest rate ceiling set at *OR*, the excess demand for lending is represented by Q_SQ_D. The amount of lending to the agricultural sector through the official financial market is equal to OQ_S, which is distributed through rationing regardless of the expected rate of return of each individual borrower. *VV* represents the demand for borrowings in the unofficial financial market, which is equal to the horizontal distance between *DD* and *DA* at each level of lending interest rate. WW is the supply of loans to the agricultural sector through the unofficial financial market. Assuming monopolistic market structure, the market equilibrium occurs at the intersection of the supply curve, WW, and the marginal revenue curve, *Vv*. The supply of loans to the agricul-

FIGURE 2



tural sector through the unofficial market and its lending rate are given by O_uX and O_uR_u, respectively.

The shortage of funds supply to the Thai agricultural sector was caused by 1) distortional fund allocation caused by a lack of competitive markets and 2) malfunction of the market mechanism due to information assymetry. The OECF's TSL solved these problems in two ways. First, by providing additional funds through the BAAC credit lines of farmers, it effectively weakened the monopolistic power of lenders in the unorganized rural market. In 1979 the number of farmers to whom BAAC supplied funds was 40.7% of the total number of farmers. The amount of farmers borrowings from private source was 36.1% of the total amount of borrowing in 1979. Secondly, by utilizing BAAC's experience of agricultural finance, and by its ability to screen agricultural projects, the cost and risk of lending operations in agricultural finance were minimuzed. BAAC increased the number of field officers from 1141 in 1975 to 2269 in 1980, and received technical assistance from Japanese agricultural finance specialists during the 1975–1979 period. BAAC also newly introduced the operational standards for the long-term lending scheme. The results of BAAC loans, summarized in Table 5, can be evaluated positively.

The increase in BAAC loans is represented by the rightward shift in the supply curve from SS to $S'S'$. The BAAC's advantage in examining small and medium sized borrowers in the agricultural sector reduces the operational cost of lending and expands the amount of loans through the official financial market. While there remains the excess demand for lending, $Q_S'Q_D$, at the interest rate ceiling, OR, loans are now distributed to borrowers according to individual borrower's expected rates of return. Therefore the demand for loans in the unofficial financial market is depicted by $V'V'$, which is equal to the horizontal distance between DD and $Q_S'B$ at each level of lending interest rate. Under the monopolistic market structure, the equilibrium in the unofficial financial market occurs at the intersection of the supply curve, WW, and the new marginal revenue curve, $V'v'$. The supply of loans through unofficial market is represented by O_uX' at the new lending rate of O_uR_u', respectively. Comparing the change in borrowers surplus (i.e. demanders surplus) and lenders surplus (i.e. suppliers surplus), the borrowers surplus in the agricultural sector and the lenders surplus of official financial institutions increases, while the lenders surplus of unofficial lender decreases. In our simple framework of partial equilibrium analysis, the total welfare effect of expansion of the BAAC loan can be evaluated to be positive.

The re-lending rates from BAAC were significantly lower than the prevailing rates in the rural unorganized financial markets. However, the business performance of the BAAC agricultural credit operation has been successful in the sense that its default ratio has been low and BAAC has enjoyed reasonable profit margins. It can not be concluded that BAAC loans at the below market rate were market distortional. This reflects only the fact that the prevailing interest rate charged in the unorganized rural financial market is determined by the monopolistic power of lenders.

BAAC has earned a good reputation regarding its operational efficiency and fairness of credit allocation. So far, BAAC has avoided the inefficiency and corruption feared by the World Bank. It can be concluded that BAAC loans are a successful example of Japanese TSL.

TABLE 5. IMPACT STUDIES OF BAAC LOANS

Impact study (research period)	1st impact study (1975-78 →1980. 10)	2nd impact study (1978. 4-78. 3 →1981. 9)	3rd impact study (1979. 4-80. 3 →1982. 9)	1st through 3rd study weighted average (change in %) (1975-78→1982. 9)	
Size of family					
Number of family member	6. 71→6. 64	6. 64→6. 01	6. 51→6. 01	6. 50→6. 04	(−7%)
Number of person working in agricultural sector	3. 56→4. 90	3. 49→3. 91	3. 52→4. 24	3. 50→4. 17	(19%)
Size & income					
Size of farming (1 hai=0.16 ha)	74→82	56→66	43→56	50→61	(23%)
Agricultural income (thousand Bhats)	119→196	84→134	28→68	53→99	(86%)
Net savings (thousand Bhast)	39→59	32→54	19. 6→19. 7	25→34	(35%)
Mechanization, etc.					
Holding ratio of farm tractor (%)	6→22	5→24	5→32	5→29	(461%)
tractor (%)	7→12	4→10	2→9	3→10	(217%)
pump (%)	40→67	27→47	20→32	23→40	(74%)
Acreage of new products (1 hai=0.16 ha)	18→32	8→18	39→46	27→35	(32%)
Assets, liabilities					
Liabilities (thousand Bhats)	13→120	7→64	2→33	4→42	(848%)
Assets (thousand Bhats)	442→835	180→605	116→285	159→432	(171%)

Source: Katsunori Swai (1986).

VII. *Concluding Remarks: The New Operational Standards of Japapese TSLs*

If there is no information and enforcement conflicts and all comodities are traded in competitive contingent markets, then financial resource allocation, based on the market mechanism, satisfies Pareto optimality. In this case, optimal capital allocation is market determined and the financial liberalization policy recommended by the World Bank has rationality.

However, if the assumed conditions are not satisfied, then an administrative resource allocation mechanism is justified. The Japanese Ingredient Approach to economic assistance policy, which contains the lessons derived from the Japanese experience, does make sense.

The results of the Japanese "Ingredient Approach" depends on whether government can select appropriate target industries and design policy based credit lines that provide financial support to those industires in an optimal manner. So far, Japanese TSLs have been provided mainly to Asian countries with good economic performances and the Japanese "Ingredient Approach" has achieved relatively successful results. The effectiveness of Japanese TSLs based on the "Ingredient Approach" will be tested in more severe circumstances when it is provided to countries with bad economic circumstances.

The following conditions must be satisfied in order to qualify for the Japanese TSL:

1) Macro economic stability of the TSL recepient country is an essential prerequisite for the successful Japanese development assistance.

2) Economic development programs designed by borrowing countries should be feasibles and the selection of strategically targeted industries must be carefully examined.

3) The causes of the shortage of fund supply to the targeted industries should be made clear. The TSL scheme must be designed to effectively remove the causes .

4) Apex institutions should be closely monitored so that they satisfy operational efficiency.

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