# **Deregulation and Privatization of the Fiscal Investment and Loan Program**

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#### **ABSTRACT**

Deregulation is the only means possible of revitalizing the Japanese economy which has been suffering the longest recession following the bubble economy. One recent attempt to deregulate the system involved the privatization and integration of special government corporations, including those belonging to the Fiscal Investment and Loan Program (FILP). The FILP was established in 1953 to provide a financial basis for government intervention into the market to achieve particular policy objectives such as distributing funds for public investment to build infrastructure or promote economic growth. It should be noted, however, that the current size of the FILP in terms of budget is almost the same as the general account of the national budget. Moreover, the share of funds related to the FILP in terms of money flow in the economy is about 43%, which used to be 20% in the 1970s. This growing involvement of government in financial activities is said to be suppressing the private sector. This is the reason why the reform of the FILP is a major issue.

After the oil crises when the Japanese economy underwent structural change from a high to a low growth rate, the flow of money and funds was also affected, and the FILP also underwent a great change. But nowadays a real change might be necessary for the FILP; that is, as deregulation of the financial market proceeds and the market mechanism increasingly moves into motion, the role of the government is expected to decrease. This paper will analyze the role of financial activities of the government, and examine why the FILP faces reform, and how it should be deregulated by considering the economic foundation of the FILP as well as its relation with the transformation of the Japanese economy.

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#### 1. INTRODUCTION

In the midst of the longest recession following the bubble economy, it is commonly understood that deregulation is the only means possible of revitalizing the Japanese economy. One attempt to deregulate the system involved the privatization and integration of special government corporations, including those belonging to the Fiscal Investment and Loan Program (FILP). This reform, just as a number of other reforms implemented from time to time, disappeared in the "Bermuda Triangle" of the Japanese economy -- "zoku-giin" (politicians with special interests) of the Liberal Democratic Party (LDP), bureaucrats, and the agricultural cooperatives (nokyo) -- without holding any discussion as to whether those special government agencies are even necessary in this age when Japan is recognized as a major economic power, and economic globalization is taking place. This led to a political showdown which motivated the government to take concrete measures towards deregulation. The aftermath of the political decision-making is that among ninety-two special government corporations, ten have been integrated and only one agency abolished -- the Social Development Research Institute with twenty-three staff. Teito Rapid Transit Authority is to be privatized in a few years. It is thus doubtful how this reform will contribute towards trimming down the number of employees and government subsidies, which amounted to \(\frac{\pma}{2}\).8 trillion in 1995.

The aims of this reform of special government corporations is to transform the economy to becoming more market oriented, to reduce resources such as tax money to be allocated to the public sector, and to encourage revealing more information on these agents. The reform

of the FILP also has the same objective. The current size of the FILP in terms of budget is almost the same as the general account of the national budget. Moreover, the share of funds related to the FILP in terms of money flow in the economy is about 43%, which used to be 20% in the 1970s. This growing involvement of government in financial activities is said to be suppressing the private sector. This is the reason why the reform of the FILP is a major issue. Actually, there are four agents which comprise the FILP among the government agents to be reformed, as mentioned earlier.

This paper will analyze why the FILP faces such reform, and how it should be deregulated by considering the economic foundation of the FILP as well as its relation with the transformation of the Japanese economy. The FILP was established in 1953 to provide a financial basis for government intervention into the market to achieve particular policy objectives such as distributing funds for public investment to build infrastructure or promote economic growth. After the oil crises when the Japanese economy underwent structural change from a high to a low growth rate, the flow of money and funds was also affected, and the FILP also underwent a great change. But nowadays a real change might be necessary for the FILP; that is, as deregulation of the financial market proceeds and the market mechanism increasingly moves into motion, the role of the government is expected to decrease. This paper also examines the role of financial activities of the government in this situation, and provides the microeconomic foundations of the FILP.

In section 2 which follows, an outline of the FILP is provided, and the flow of funds related to the program is described. The role of the government in the economy is next examined in section 3. Theoretical issues of the FILP related to deregulation are discussed in section 4. A brief conclusion is given in the final section.

## 2. THE SYSTEM OF THE FILP

The FILP is a general name for government activities related to the finance and

investment of public funds.<sup>1)</sup> It consists of two aspects: (a) one is the function of collecting public funds through the government-operated postal savings system such as postal savings, and postal life insurance and postal annuity, and (b) the other is that of allocating those funds to various investment institutions which invest public funds into specific fields of the economy. The total amount of funds related to this program is so huge, almost half of the national budget, that this program is sometimes referred to as "the second national budget".

The flow of funds related to the FILP is shown in figure 1. The FILP is rather complicated so focus will be placed on the source of funds and their distribution.

## 2.1. Source of Funds for the Program

The main source of funds is the Trust Fund Bureau fund managed by the Ministry of Finance.<sup>2)</sup> This fund consists of postal savings deposits, and funds of national and welfare pensions. Postal savings are deposits made at post offices, and all premium of the postal life insurance and postal annuity are also important sources for the program. The program also raises funds from private financial institutions by issuing bonds which are guaranteed by the government. Finally, funds come from tax revenues through the general budget, more precisely, through the industrial investment special account, etc. The share of those funding sources of the fund to the program is shown in figure 2. Figure 3 indicates the share of the Trust Fund Bureau fund, which has the largest share in the program.

The two figures imply that postal savings has been the biggest source of funds for the program. Its share increased after the mid-1960s, but from the oil crises of the 1970s until 1980, no change in share was observed. However, after 1980, the share of postal savings has continued to show a decrease. Since postal savings is a voluntary as well as stable means of savings for consumers, it is worthy to note that the program has been founded upon the high savings rate of Japanese households. In the 1990s because of the crisis faced by private banks, which is symbolized by the so-called *Jusen* problem, postal savings has shown a marked increase.

Figure 1. Flow of Funds of the Fiscal Investment and Loan Program

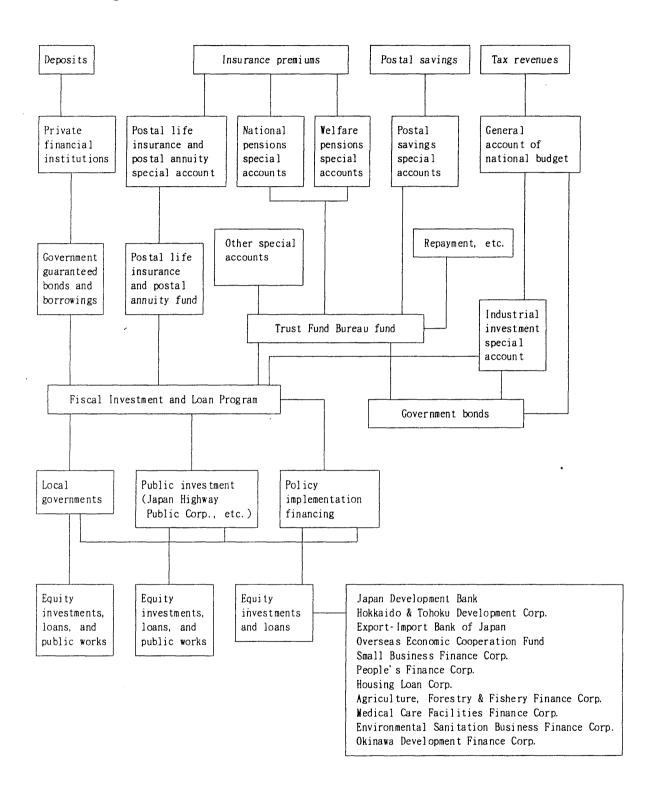


Figure 2. Funding Sources of the FILP

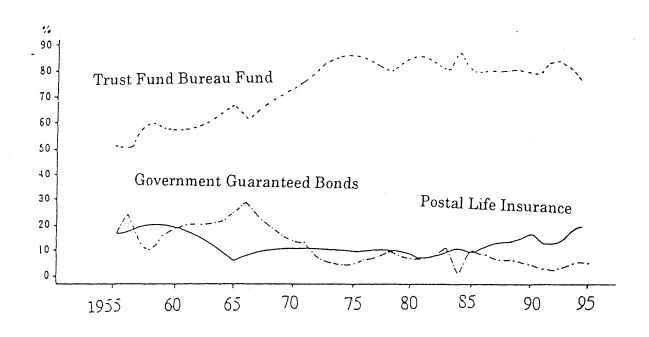
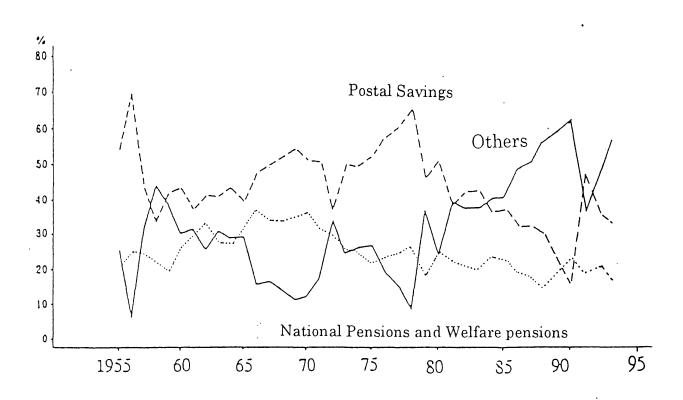


Figure 3. Share of Sources for the Trust Fund Bureau Fund



## 2.2. How Funds are Distributed through the Program

Now, the means by which funds are allocated to various channels are described next. The FILP does not invest funds directly into particular projects, but rather provides funds to government institutions which actually invest or lend funds to private agents. There are sixty-eight such government institutions to be counted thus far: among them the first category of institutions includes the Housing and Urban Development Corporation, Employment Promotion Corporation, Japan Railroad Corporation which was called Japan National Railroad before privatization, Japan Railroad Construction Corporation, and Japan Highway Corporation. They are mainly for the purpose of promoting public investment to build infrastructure for the economy.

The second category of institutions include government financial institutions (financial intermediaries) such as the Japan Development Bank (JDB), the Export-Import Bank of Japan, Overseas Economic Corporation Fund, Small Business Finance Corporation, People's Finance Corporation, Housing Loan Corporation, and Agriculture, Forestry and Fishery Finance Corporation. The JDB, for instance, has the role of financing public funds to promote industrial investment, and the Export-Import Bank of Japan finances funds for export and import.

Local governments also require funding to improve their infrastructure such as roads, parks, and schools. For these purposes they issue bonds to finance projects. The FILP also purchases those bonds. Nearly more than half of those bonds issued by local governments are bought by the program.

The particular objectives of investment by the FILP is classified into the following twelve categories; (1) housing, (2) maintaining national land and environment, (3) welfare, (4) education, (5) financing small businesses, (6) agriculture and fishery, (7) preventing natural disasters, (8) roads, (9) transportation and communication, (10) regional development, (11) industrial technology and (12) trade and overseas cooperation. We summarize the above categories into three major groups such as life-related (1-4), environment-related (7-10) and

industry-related (5,6,11, and 12). The trend of share of these three groups is shown in figure 4. According to the figure, during the period of rapid growth, investment for industry-related purposes was considered the most important, followed by environment- and life-related investment. The life-related category began to show an increase after 1960.<sup>3)</sup>

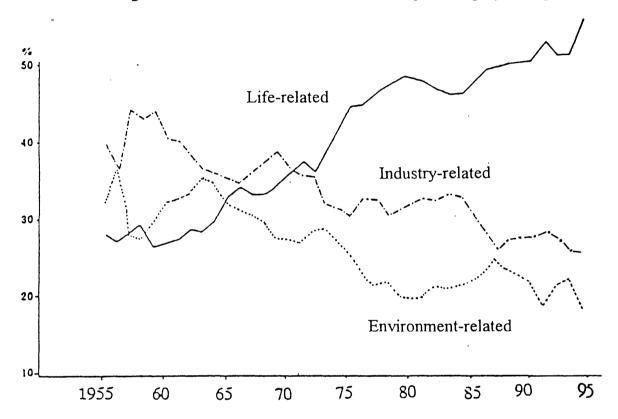


Figure 4. Trend of Share of the Three Major Category Groups

## 2.3. Reasons for the FILP: Preliminary Discussion

The reasons for government financial involvement is explained by market failure. In the financial market, imperfection occurs due to various reasons, and the market fails to achieve the efficiency of allocation. The inefficiency of the market system results mainly from the following two factors: imperfect information and imperfect competition. The former results in deficiencies in the market or the lack of complete contracts in the private sector, as Ide and Hayashi [1992] have suggested. It also leads to government provision of funds to risky areas, which gives less incentive to the private sector for investment (see Yoshino [1990]). The government and the private sector share the risk.

Imperfect competition stems from the monopolistic power of private financial institutions, which is due to the economies of scale, or economies of scope. Then the government either regulates the market to restore competitiveness, or acts as a countervailing power to suppress the monopolistic power of the private sector, and to promote fairness among agents (see Royama [1986]).

Another view of government financial activities is to focus on achieving particular policy aims such as economic development. The government can supply long-term and low-risk capital to the market and can take the risk involved in investment by the tax scheme, for instance. These measures are known as industrial policy. In addition, according to Stiglitz [1991], nurturing the financial market is a policy objective of the government.

Thus, government commitment to the financial market has the above function: on the other hand, it also has a negative effect on the economy. The optimal level of government intervention should therefore be considered.

#### 3. ISSUES ON THE SIZE AND FUNCTION OF THE FILP

Here, a generalization as to how the level of government activities is determined is presented in abstract terms. By its application, how government activities change according to the economic environment will be examined.

## 3.1. The Value of a Social System

There is no doubt that the market mechanism is not perfect in terms of allocating resources. Where the market fails, the government enters as an important agent to restore its efficiency. In practice, however, it is difficult to determine the optimal size of such government activities. The general idea here can be explained as follows. An economic system is supposed to have as its social net value **W**. Let us suppose that **W** has the following

function form;

$$W = W(\theta, z_i)$$
  $i = 1, 2, \cdot \cdot \cdot$ 

 $\theta$  stands for the degree of government activities, such as the number of regulations, the relative share of the government over the private sector, the size of government in terms of amount of budget or employees, etc.  $z_i$  signifies the parameters which affect W, which will be explained in more detail later. Given values of parameters  $z_i$ , the value of a social system depends upon the degree of government activities relative to those of the private sector. The optimal size of the government  $\theta^*$  is therefore determined as the value which maximizes W. As  $z_i$  varies,  $\theta^*$  also varies.

Let us discuss the parameters  $z_i$  in this context of the financial market, in which the FILP plays an important role. The important parameters are summarized as follows: (a) level of economic development, (b) degree of competition in the market, and (c) budget situation of the government. There are other factors such as social norm of the society, historical traditions, etc. Here we restrict our focus only on those parameters mentioned above.

## 3.2. Parameters which affect W

In the early stage of economic development, suitable government policies can promote economic development. Well-known examples in the Japanese economy include an industrial policy which aimed at nurturing strategic industries by measures such as investing tax money, providing tax credit by special allowances for depreciation, and blocking foreign competition by setting up tariffs or non-tariff barriers. Construction of social infrastructure is also another government measure to promote economic development. As the economy grows, however, the market system takes over the role of resource allocation. Without government intervention, the economy grows under the market mechanism. Then the share of the government to the economy declines.

The financial market is one of the most regulated areas in any economy, since the security

of the whole financial system is the basis for economic stability. Due to this, even competition itself is restricted. The number of regulations depends upon the degree of competitiveness of the market. In general, the more competitive the market, the less the government regulations. The globalization of the economy, or technical innovation of financial transactions, such as electric banking or "digi-cash or cyber-dollar" make regulations less effective.

The philosophical attitude towards a budget system or government directly affects government size. Under an economy with a Keynesian tradition, for instance, the size of government tends to grow; under the influence of Classical economics, on the other hand, it becomes smaller.

## 3.3. Comparative Static of $z_i$ in the Japanese Economy

According to the above framework, in this section let us discuss how a parameter affects  $\theta$ \*. As stated earlier, the FILP played a vital role in promoting economic development. The economic situation of LDCs are characterized by low capital accumulation, poor financial market, and poor technology. Here, the role of the government tends to grow by investing public funds for infrastructure, improving the financial market, and providing long-term capital necessary for economic growth. At this stage of development, the government sector has more information on technology, or industry with externality to the economy. The government can take the lead in reducing the risk of the private sector. This is referred to as risk-sharing between the government and the private sector.

As an economy develops and the private sector accumulates capital, financial "deepening" or "widening" in terms of the market, financial commodity, or transactions occurs. The agents can then find ways to gain access to suitable funds in terms of amount, interest rates, maturity, and risk. They can also choose suitable items to invest in. In addition to these, the gap in the amount of information available between the government and the private sector becomes narrower. The advantage of government financing thus disappears and the market mechanism takes over.

The Japanese economy currently shows the biggest GDP per capita as well as the largest amount of family savings. The economy can manage without government intervention.

#### 3.4. Competitiveness of the Financial Market and Its Effect on the FILP

In the financial market, individual households and small businesses sometimes have to deal with banks with monopolistic power, usually big banks. Government intervention in the financial market has the function of maintaining the competitiveness of the market. In this sense, as the market becomes more competitive, the less the role of government.

Since the 1980s, deregulation of the financial market has been proceeding and now there is basically no regulation on interest rates. Let us examine the effect of deregulation on the FILP in more detail. In 1987, as part of deregulation, interest rates related to the FILP were also determined according to the market rates of interest.<sup>4)</sup> Particularly, the interest rate charged by the Trust Fund Bureau fund is related to long-term government bonds, and government financial institutions lend funds with rates based on the long-term prime interest rates. The difference between them is the profit margin for government financial institutions. When interest rates were regulated in the period of rapid growth in the 1960s, government financial institutions could secure about a 1.5% margin. It became 1% in the 1970s, and after deregulation, however, this margin became smaller, and even saw occasional reversals at certain phases of the business cycle, especially during periods of falling interest rates. The current movement of those interest rates is shown in figure 5.

This causes a serious problem for government financial institutions because they are no longer guaranteed profits by the regulation. Let us examine how this affected the profit of government financial corporations, as shown in table 1.

As for the function of government financial institutions which comprise the FILP, their roles are classified by the following two categories: (a) quantity complimentary, and (b) quality complimentary. The former role implies that they provide funds to agents who do not receive sufficient funds because they are considered too small or too risky, and thus are likely to

be rationed by private banks. Peoples' Finance Corporation, Small Business Finance Corporation, and Hokkaido-Tohoku Development Finance Corporation are examples. Basically they lend funds at the same rate as the market.

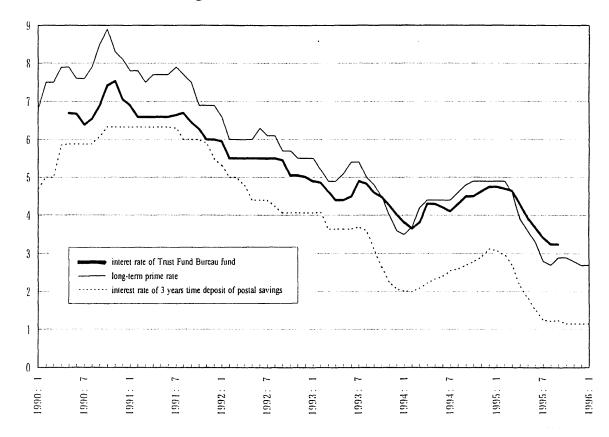


Figure 5. Current Interest Rates

The latter role implies that in order to practice particular policy goals, government financial institutions lend funds at a lower rate than market rates. Institutions which follow this function are, for instance, the Housing Loan Corporation, Agriculture, Forestry and Fishery Finance Corporation, and Environmental and Sanitation Business Finance Corporation. They provide funds at lower rates, and this means that they always suffer losses, and these losses are covered by the general account of the government budget.

There is a relationship of common interest between the types of government financial institutions and subsidies from the general account. As for category (a), quantity

Table 1. Accounting of Major Government Financial Corporations

(in trillion yen)

	1985	1986	1987	1988	1989	1990	1991	1992	1993
People	's Finance	e Corp.							
1	141	148	-8	4	471	845	816	700	262
2	-389	-417	-560	-584	-124	182	125	-28	-476
3	226	397	532	437	381	305	145	96	176
4	-163	-20	-28	-147	257	487	270	68	-300
Housin	g Loan Coi								
1	-4, 017	-3, 927	<b>-4,</b> 002	-4, 101	- <b>3,</b> 531	-1,831	-2, 015	-2 <b>, 83</b> 2	-1, 961
2	-4, 431	-4, 368	-4, 477	-4, 596	-4, 060	-2, 376	-2, 550	-3, 393	-2, 589
3	3, 431	3, 433	3, 440	3, 440	9, 532	3, 540	3, 740	<b>3,</b> 940	4, 045
4	-1, 018	-935	-1, 037	-1, 156	5, 473	1, 164	1, 190	547	1, 456
	lture, Foi								
1	-1, 160	-1, 155	-1, 133	-1, 138	-994	-790	-605	-831	-799
2	-1, 449	-1, 448	-1, 425	-1, 426	-1, 286	-1, 089	-903	-1, 131	-1, 098
3	1, 398	1, 434	1, 434	1, 441	1, 275	1, 198	1, 209	1, 183	1, 031
4	-51	-14	9	15	-11	109	306	52	<u>-67</u>
	Business F								
1	106	38	-323	-116	132	391	277	271	-8
2	-228	-270	-601	-385	-148	69	-78	-109	-404
3	146	294	510	<b>3</b> 65	273	285	129	125	126
4	-82	24	-91	-20	125	354	51	16	-278
Hokkai	do-Tohoku		ent Corp.						
1	34	25	7	1	1	34	35	71	75
2	3	-9	-27	-33	-36	-6	-8	27	31
3	0	0	55	33	35				_
4	3	-9	28	0	-1	-6	-8	27	31
	e Corp. of								
1	-433	-387	-106	-36	111	308	414	633	782
2	-442	-396	-115	-46	101	298	403	622	770
3	156	159	151	136	109	94	85	76	74
4	-286	-237	36	90	204	392	488	698	844
	nmental Sa								
1	15	11	10	11	36	42	47	51	4
2	-80	-70	-58	-48	-22	-18	-20	-23	-74
3	64	64	48	47	44	40	60	64	67
4	-16	-6	-10	- ]	22	22	40	41	-7
	a Developm								
1	-102	-102	-93	-93	-71	-28	-49	-78	-41
2	-136	-137	-130	-129	-109	-70	-92	-123	-87
3	122	125	138	132	134	128	136	124	123
4	-14	-12	8	3	25	58	44	1_	36
	Developmen								
①	637	650	510	456	645	982	751	711	697
2	505	515	367	310	488	812	569	517	500
	-Import Ba								
1	252	376	211	200	288	49	-55	-73	-66
	180	302	134	118	208	-50	-160	-186	-190

① net interest revenue, ② operating profit, ③ subsidies from general account,

Source: Monthly Review of Financial Statistics, Ministry of Finance

④ net profit subtracting item③

complimentary corporations, during periods of falling interest rates (1985-87, for instance), the difference between interest received and paid (row ① in table 1) tends to show an decrease; accordingly subsidies from the budget increase. This is due to the fact that they provide loans at the prime rate and borrow at the rate determined by the Trust Fund Bureau, which is the same as long-term government bonds. At phases of falling interest rates, especially in 1993 and 1995 as indicated in figure 5, these two might be reversed. Another fact regarding institutions of this category is that recently their operational expenses have been increasing. Especially that of the People's Finance Corporation is greater than its net revenue of interest income, and this reveals the inefficiency of its management.

On the other hand, as for institutions of category (b), their losses are not related to the cyclical situation of the financial market, and they have received an almost constant amount of interest subsidies from the general account for the past ten years. Among these institutions, the Housing Loan Corporation shows the biggest losses.<sup>5)</sup> As for the share of the government and private sector, the balance of the mortgage of the Housing Loan Corporation totals more than half, and this is oftentimes referred to as being symbolic of the government's efforts to drive out the private sector.<sup>6)</sup> This fuels doubt regarding public subsidies for housing, since it is much too costly in an age when a family is able to live in either a private home or apartment. In addition, it gives rise to the fairness issue between homeowners and renters.

According to table 1, these eight major government financial corporations received ¥560 billion worth of subsidies from the general account. In comparison with those received in 1980, the People's Finance Corporation and Small Business Corporation showed a tenfold increase, and the Housing Loan Corporation doubled their subsidies.

## 3.5. Budget Deficit and the FILP

Following the oil crisis, the government has had to issue a huge amount of bonds in order to cope with the resulting recession, and it will amount to ¥220 trillion at the end of the 1995 fiscal year. The amount of bonds issued will be close to half of the GDP. The FILP is also involved in the issuance of bonds, since the Trust Fund Bureau has had a big demand for

government bonds. Particularly since the second oil crisis of 1980, it had increased the purchase of government bonds which totaled one third of newly issued bonds in the 1980s. As a result, in 1994, it owned \(\frac{1}{2}\)83 trillion worth, and more than one third of the bonds are owned by the Trust Fund Bureau.

This gives rise to serious budgetary problems as well as others for the FILP itself. First, since the FILP purchases government bonds, this enables the government to increase the budget deficit rather easily, and it is said that an increase of the budget deficit absorbs the resources available to the private sector. This problem is also related to the FILP, since the source of funds to the FILP is the voluntary savings of households and the FILP must pay interest. The aims of the FILP are to allocate funds to areas which are socially necessary but neglected by the market mechanism. Bond purchase, however, implies financing the government deficit and this is opposite from its aims. In addition to this, it claims that the FILP provides funds to the Japanese Railway Settlement Corporation and to special accounts such as national forestry areas, national universities, and national hospitals. These are all losing money, and it is not appropriate for the FILP to provide them funds which are supposed to be invested in profitable projects. In sum, the FILP takes over roles that should actually be covered by the budget.

Second, the Trust Fund Bureau is a part of the Ministry of Finance, and thus, the Ministry of Finance plays dual roles; one is issuing bonds, and the other is purchasing them. Thus, the Ministry loses control over its expenditures, making it difficult to maintain a balanced budget. Another related issue regarding the dual role the Ministry of Finance is the moral hazard. As an actor of bond purchase, the Trust Fund Bureau invests short-term funds in the bond market. Even if the amount is small, this operation has an announcement effect on the market. On the other hand, as an actor of bond issuance, the Ministry of Finance has the incentive to sell at a lower rate than the interest rate being paid. It is said that the Trust Fund Bureau tries to maintain bond prices in order to reduce the burden of issuing new government bonds. This exactly is the moral hazard.

All activities of the Trust Fund Bureau are required to receive Diet approval. However,

loans of less than five years are exceptions to the rule. This leads to the Bureau making use of short-term transactions to cover the deficits of the special accounts.<sup>7)</sup>

#### 4 SOCIOECONOMIC ISSUES OF THE FILP

Here some socioeconomic basis of the FILP is provided to discuss the role of the government in the FILP.

## 4.1. The FILP and the Principal-Agent Relationship

There are many agents related to the FILP. As stated earlier, the fund flows from households to postal savings, from there to the Trust Fund Bureau, and then to government financial institutions and on to the final demanders of the fund such as the private sector, or local governments. The efficiency of the FILP system depends upon how these agents can be integrated. One explanation for this issue is the principal-agent relationship (see Ide and Hayashi [1992]). Care should be taken when applying this theory to the FILP. The usual principal-agent relationship can be found, for instance, between stockholders and the management of firms, or between depositors and banks in the financial market. The FILP, however, is not comprised of simple relationships. There are many independent agents in the FILP; that is, it consists of multi-layered relationships. At the first stage of the flow of the fund, depositors of postal savings are the principal, and the Ministry of Posts and Telecommunications is the agent. At the second stage, however, the Ministry is the principal, and the Trust Fund Bureau is the agent. And at the third stage, the Bureau is the principal, and the government corporations or government financial institutions are agents. In some cases, a fourth stage implies that government financial institutions such as the People's Finance Corporation, and Small Business Finance Corporation are principals, and private banks are agents under a consignment contract.8)

Thus, we should be careful when applying the single stage principal-agent theory to the FILP. If we take a particular stage of the principal-agent relationship, and can explain its

efficiency over the private banks in the financial market, this does not necessarily guarantee the efficiency of the entire system. A typical example is found in the issue of mismatch in the demand and supply of the fund. All projects of the FILP are determined according to the same mechanism as the budget. This implies that projects deemed necessary for the economy are determined at the beginning of the fiscal year as part of the general budget, then the decision as to how they will be financed follows. This comes from the concept of ex-ante. In ex-post, however, they are not always realized. During the fiscal year, the situation might differ from what had been expected. If more money is deposited into the postal savings, and if the agents of the FILP do not dispose of the increased funds, it is carried over to the next fiscal year. This is the problem of carry-over, which occurs because the extra funds are disposed of according to the budget system. There is no mechanism to rectify the mismatch of the demand and supply of the fund. As shown in this example, there is no consistent contract among the agents of the whole FILP, and only the consequences of bureaucratic inflexibility remains. The FILP system appears to work efficiently since the program collects public funds from all sources and integrates them, and then invests in public projects in a consistent manner. This integration seems to practice the economy of scale yet, on the other hand, it causes x-efficiency and a mismatch of the fund, since there is no optimal contract throughout the various stages of the FILP.

In order to consider this problem in more concrete terms, let us compare the Toyota production system as another example of the multi-layered principal-agent relationship. In the Toyota system, Toyota Motor Corporation is the single and ultimate principal in the whole system and it can make the optimal contract with other agents. According to Coase[1937] and Williamson[1989], the optimal length of the stages in this context is determined by either the transaction costs or information structure of the system to prevent opportunism and bounded rationality. It is possible for Toyota to determine this. As for the monitoring scheme, Toyota can easily check the quality of parts and this enables Toyota to continuously supervise these parts suppliers. Since all parts are manufactured by its primary, secondary, and tertiary subcontractors, this determines the quality of Toyota automobiles. On the other hand, the reason why its more than 34,000 subcontractors maintain the hierarchical production

system is either due to "growth-sharing," that is, when Toyota grows, they also grow, or risk-sharing. This is one of the incentive constraints for the subcontractors. Another scheme of the Toyota system is found in its joint activities such as R&D to seek out new technology and new methods of manufacturing.

In the FILP system, on the other hand, there is no single ultimate principal such as Toyota. The Ministry of Finance cannot act like Toyota, nor enforce an optimal contract on behalf of the FILP, since it is one section of the administration. In addition, they are all public agents or corporations of which behavior is not profit maximization, and contracts are determined by political decision-making. The only possible motivation for the FILP is that it is part of the government administration. Yet, there is less incentive to be efficient, thus x-efficiency occurs. As for the monitoring of agents, all information is not necessarily revealed in their financial reports, since they are under a different accounting system from the private sector.

## 4.2. Bureaucratical Sectionalism and the FILP

Another inefficiency in the FILP reveals itself because of the sectionalism of the bureaucracy. In the program more than one government agent pursues the same goal. Housing, for instance, is the most urgent issue for achieving the national goal of a high quality of life. The Housing and Urban Development Corporation, Housing Loan Corporation, Japan Workers' Housing Association, and even the Employment Promotion Corporation engage in either construction or mortgage financing. This is a typical ill effect of the bureaucracy, which leads to inefficiency. In this sense, the integration of government corporations with similar activities is quite persuasive.

This kind of sectionalism has another function, that is, competition among government agencies, and in some circumstances the consequences are favorable. In the FILP, the Ministry of Finance does not necessarily play a dominant role. Many government corporations belong to other ministries. The JDB, Export-Import Bank of Japan, and Small Business Finance Corporation are affiliated with MITI, the Japan Highway Corporation, and Housing and Urban

Development Corporation with the Ministry of Construction, and the Environmental Sanitation Business Financing Corporation with the Ministry of Health and Welfare. Bureaucrats are said to be eager to expand their power to related areas of their administration, as indicated by Niskanen [1971], who formulated the hypothesis that bureaucrats maximize the budget under This is what motivates the competitive atmosphere among government their control. ministries. Once their territories of administration are secured, however, their interests go in the opposite direction, that is, "backwards". Many suggest that the cowbell effect of the FILP is just a myth, but it actually provided trillions of yen to declining industries such as those related to coal, agriculture and forestry, and sea transport. 10) The situation differs greatly when they look to the future. Now, targeting forward to the information society of the 21st century, bureaucrats are announcing their own projects in the information industry. MITI, the Ministries of Construction, Agriculture, Transportation, and even the Ministry of Posts and Telecommunications have formulated ambitious projects. In addition to supporting information or computer industries, funding is also being provided to venture businesses. Even the Ministry of Education has joined this race. This attitude of claiming new territory has the same basis as the government role in implementing an industrial policy for economic development.

## 5. TOWARDS THE REFORM OF THE FILP

We discussed thus far the role of the government in the context of the FILP. The system of the FILP has not been able to adjust well to the new circumstances of the economy. The transformation taking place in the Japanese economy such as low growth, globalization, aging economy, and market competition has had a positive effect in changing the role of the government in the economy. The turn to a low growth economy implies that the savings rate will decline. An aging economy means that accumulated pension funds will be withdrawn. Deregulation in the financial market will lead to diminishing the advantage of postal savings. The consequences of these changes mean a decrease in sources of funding for the FILP. As shown in figure 3, among the sources of the Trust Fund Bureau fund, other factors aside from

postal savings and national and welfare pensions are increasing, which include payment of past loans. In future, this phenomena will continue. The basis of the FILP, which depends upon the growth of the Japanese economy, will suffer collapse at the funding source.

One way to cope with this problem is to trim down the public sector and to introduce the market mechanism to the FILP. Some of the institutions of the FILP, especially the government financial corporations, can operate under the market as private agents. As pointed out earlier by the example of the inefficiency of the multi-layered agency relationship, there should be single stage relationship and more freedom given to management to collect funds from the market in a competitive manner. This implies that they should be able to issue their own securities and postal savings can purchase them. Postal savings would thus become an independent agent to collect and invest its own funds. An integrated system which follows the directions of single agents such as the Ministry of Finance or other non-market agents is not suitable in an economy which is much more volatile.

Other suggested reforms are as follows: (a) introducing a business accounting system other than that of public firms, (b) revealing more information, and (c) separating the budget and financial function in the FILP. An example of (b) is, for instance, information on the behavior of the Trust Fund Bureau such as the usage of short-term funds of less than five years which do not require Diet approval, and the amount of its open market operation of government bonds. As for the former it has been previously mentioned that the funds are being used to make up for deficits of special accounts. Since the FILP fund must pay interest, it should be invested in profitable projects.

Most of the reforms suggest the introduction the market mechanism into the FILP and the dismantling of the program in such a way as to provide more freedom to the agencies in the FILP. Postal savings, which has the sole operation of accepting deposits, can lend or invest its own fund by its own decision, and this enables the postal savings to be a complete financial institution. Other government institutions should be permitted to issue their own bonds to collect funds through the market, and the Trust Fund Bureau can become an agent to purchase those bonds. Competition in the market would make the FILP more efficient. This is the only way to coordinate the merits of the FILP and promote its efficiency.

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#### NOTES

- 1) The definition of the FILP differs according to author. The definition provided here is one of the broadest. This broad definition is sometimes referred to as public financing or policy implementing financing. We will not go into the semantics of the FILP any further.
- 2) The Trust Fund Bureau is part of the Finance Bureau of the Ministry of Finance. It is said that the Bureau is operated by less than thirty people.
- 3) The function of the FILP project in different periods of the post-war Japanese economy as well as the motivation of the policy makers are analyzed in Tsuji [1992].
- 4) At the same time, the postal savings and welfare pension funds were allowed to invest their own funds. This, in principle, broke the rule of the unification of funds under the Trust Fund Bureau. In 1995, postal savings totaled about ¥40 trillion. But they are supposed to hold only government bonds.
- 5) Housing has been the major objective of the fiscal policy after the bubble economy. This caused the recent increase in the share of the Housing Loan Corporation in mortgages. The increase of operating expenses can be partly explained by this, and another reason is that there is a time lag in changing their interest rates according to those of the market. The Housing Loan Corporation, People's Finance Corporation, and Small Business Finance Corporation are operating with private banks under consignment. Inflexibility in changing the consignment fee is also a possible reason for their losses, as pointed out by Hayashi [1987], who provides an interesting analysis of the consignment of the Small Business Finance Corporation.
- 6) Now private banks offer lower rates of mortgage than the Housing Loan Corporation. This is again due to the inflexibility of its mortgage rates.
- 7) Because of the long recession, local government budgets have worsened, and they borrow from the local allocation tax special account. The general account of the national budget itself

is suffering a deficit. Thus, the special account borrows from the FILP. In 1994, loans amounted to ¥26 trillion. This is another example of the general account making use of the FILP fund to make up for its deficit.

- 8) Other governments have similar programs for funding public projects, for example, National Loans Fund in the UK, and Federal Credit Program in the US. They do not have a complicated system like the FILP, nor are they multi-layered.
- 9) Because of the increase of repayment, it is said that some government financial institutions may choose either the FILP fund or repayment, and they prefer funds with a lower cost. If this is true, they are then showing some kind of maximizing behavior, and might cause the carry-over of the FILP fund.
- 10) See Horiuchi and Otaki [1987]. There are lots of empirical studies about the cowbell effect of the FILP fund, with special focus on the JDB. The origin of the idea is found in Higano [1984].
- 11) For instance, see Royama [1986], and Hayashi [1987].

## **REFERENCES**

Coase, R.H.[1937] "The Nature of the Firm," *Economica*, 4(1937), pp. 386-405

Hayashi, T. [1987] "Kinyu Jiyuka to Koteki Kinyuchukai (Deregulation of Finance and Public Financial Intermediation)" in R. Tachi and S. Royama (eds.), Nihon no Kinyu (Japanese Finance) (1), Tokyo University Press, pp. 221-54

Higano, M.[1984] "Kyocho Yushi to Shinsa Noryoku -- Kaihatsu Ginko no Kesu (Syndicated Loan and Ability to Examine -- In the Case of the Japan Development Bank)," Keizaigaku Ronshu (Journal of Faculty of Economics, Tokyo University. Vol. 50. No.1, pp. 70-82

Horiuchi, A and M. Otaki [1987] "Kinyu: Seifu Kinyu to Ginko Kashidashi no Juyosei (Finance: Importance of Government Intervention and Bank Loans)" in K. Hamada et al (eds.), Nihon Keizai no Makuro Bunseki (Macro Analysis of Japanese Economy), Tokyo University Press, pp. 123-48

Ide I. and T. Hayashi [1992] "Kinyu Chukai ni okeru Kouteki Bumon no Yakuwari (Role of the Public Sector in Financial Intermediation)" in A. Horiuchi and N. Yoshino (eds.), Gendai Nihon no Kinyu Sisutemu (Financial System in Contemporary Japan), Tokyo University Press,

pp. 219-47

Niskanen, W. [1971] Bureaucracy and Representative Government, Aldine-Athertor.

Royama, S. [1986] Kinyu Jiyuka (Deregulation of Finance), Toyokeizai

Stiglitz, J.E. [1990] "Government, Financial Markets, and Economic Development," NBER working paper No. 3669

Tsuji, M. [1992] "Role of the Fiscal Investment and Loan Program in Japanese Economic Growth," Proceedings of the International Conference of Micro-Economic Policy and Reform for International Competitiveness, University of Queensland, pp. 597-607

Williamson, O. E.[1989] "Transaction Cost Economics," in R. Schmlensee and R. Willig (eds.), *Handbook of Industrial Organization*, Vol. 1, North-Holland

Yoshino, N.[1990] "Zaisei Toyushi no Genjo to Kadai (Current Situation and Issues of the Fiscal Investment and Loan Program)," in K. Kaizuka et al (eds.), Henbo suru Kokyo Bumon (Transforming the Public Sector), Yuhikaku.