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CONTENTS

AN ECONOMIC ANALYSIS OF GOVERNMENT-OWNED FINANCIAL INSTITUTIONS

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Introduction

This paper attempts to make a theoretical analysis of the role of government-owned financial institutions. Our argument is based on the recent development of the theory of financial intermediaries, which has its foundation on the new micro-economics of information.

Many arguments have been raised in these years regarding the present state of government-owned financial institutions in Japan. In our opinion, however, most of these arguments cannot be said to have enough ground of economic theory. In other words, we find there has not been enough theoretical studies of the role to be played by government-owned financial institutions. As it is, we aim to consider the role of government-owned financial institutions from a theoretical standpoint, without losing the sight of the present state of government-owned financial institutions in Japan.

In presenting our study, we will first provide a brief summary of the present state of lending activities by government-owned financial institutions in Japan as the premises of our discussion. This summary is followed by a short argument regarding the *raison d'être* or rationale of such lending activities on the basis of the recent theory of financial intermediaries. These will be the First part of our study. In the Second part, we will undertake a more detailed analysis of the *raison d'être* of activities by a special type of government-owned financial institutions like the Small Business Finance Corporation, among several types of government-owned financial institutions. Thereafter, this paper will be concluded by brief remarks on the significance of our analysis in relation to the actual condition in Japan.

I Guidance Policy Finance

The public sector is tied to financial markets because it must adjust the balance of its saving and investment. For instance, all of the advanced countries, including Japan, are now under chronic budgetary deficit. To finance the deficit, the governments issue large amount of bonds every year. At the same time, the public sector is participating in financial markets as an intermediary. In other words, the public sector

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raises funds not only to finance its deficit but also to lend the funds to other sectors. The lending activities by the public sector are usually referred to the term "guidance policy finance". We shall start our argument by reviewing the present state of such guidance policy finance in Japan.

1–1. *Present State of the Guidance Policy Finance in Japan*

[A] In Japan, a part of funds of the Fiscal Investment and Loan Plan (FILP) is allocated to government-owned financial institutions, corresponds to the guidance policy finance. Other parts of FILP such as the allocations to the central and local governments and the allocations to public agencies undertaking investments, as well as the acceptance of government bonds by the Trust Bureau Funds, should be regarded as financing the public sector's spending itself.

According to the Money Flow Accounts published by the Bank of Japan, the total assets of public financial institutions stood at 225.61 trillion yen at the end of fiscal year 1986. About 66% of this amount, 148.25 trillion yen, however, represented credit extended to the central government, the local governments and other public agencies. Therefore, the difference between the two, 77.36 trillion yen, was the net credit extended to non-public sectors as the guidance policy finance. On the other hand, assets of private financial institutions amounted to 675.52 trillion yen, of which 116.84 trillion yen was financed to the public sector.

As is well known, the Japanese system of public financing is a conglomerate of various institutions, each of which has only a partial function of financial intermediary. Of these institutions, the postal office is typical of the institutions responsible for raising funds, and the postal saving account is its main instrument to raise funds. All raised funds are allocated according to the FILP. By virtue of the above argument, we regard that 2/3 of the balance of the postal saving account is *defacto* the small lot public bond, while the rest 1/3 corresponds to indirect securities serving as an instrument of financial intermediation.

Against these suppliers of funds, there are two banks and nine financial corporations at present, which are so-called "government-owned financial institutions" responsible for allocation of the funds used for the guidance policy finance. The fact that there exist so many government-owned financial institutions shows that a system of specialized financial institutions is adopted in the guidance policy financing as well as in private financing in Japan. Thus each institution has specific scope of lending.

Table 1 shows composition of the total balance of funds managed under the guidance policy financing plan for these two banks, nine financial corporations, and the Overseas Economic Cooperation Fund as well as Shoko Chukin Bank (The Central Bank for Commercial and Industrial Cooperatives). Shoko Chukin Bank is a private bank, but the Japanese government holds a part of its shares.

What we can see immediately from this table is that the outstanding importance of financing extended to small and medium-sized firms in the recent years, along with the following importance of housing loan. At least quantitatively, it can be said that the

Table 1. Composition of funds managed under the guidance policy finance in Japan (%)

	FY 1975	1983	1984	1985	1986
Development Financing	12.6	9.4	9.4	9.3	9.3
Trade/Overseas Coop.	18.2	14.2	14.5	13.7	13.7
Small Firm Financing	41.6	42.5	43.5	44.5	44.5
Housing Loan	16.2	25.9	25.3	25.8	25.8
Agriculture, Forestry & Fishery Financing	6.5	4.7	4.5	4.5	4.5
Miscellaneous	4.9	3.3	2.8	2.2	2.2
Total	100.0	100.0	100.0	100.0	100.0

Source: The Development Bank of Japan

main drive of the guidance policy finance has been directed to these two areas. The guidance policy financing to small and medium firms is executed by the Small Business Finance Corporation, the People's Finance Corporation, and Shoko Chukin Bank. The share of these three government-affiliated financial institutions in the total balance of outstanding loans to small and medium firms, however, has declined from 12.8% for capital formating and operating funds (21.7% for capital formation only) at the end of fiscal year 1975 to 10.6% (15.9%) by the end of fiscal year 1985.

This decline presents a sharp contrast to the fact that the ratio of guidance policy finance to private financing has increased from 11.8% at the end of fiscal year 1975 to 15.9% at the end of fiscal year 1985. The growth of the guidance policy financing, however, occurred for the most part due to expansion of housing loans (from 2.4% to 6.0%). The total shares of the Small Business Finance Corporation and People's Finance Corporation in comparison with private financing shows no marked change (from 2.6% to 2.5%) during the period. Therefore, the gradual declining tendency mentioned above is mainly due to the strong drive on the side of private financial institutions to expand their business with smaller firms.

[B] In the recent years, several issues have been raised concerning the present state of the Fiscal Investment and Loan Plan (FILP) which includes the guidance policy finance. According to Hayashi (1987), these issues can ber elated to one of the following three problems:

(1) About 20% of the funds authorized under FILP remains unused recently.

(2) The amount of subsidies provided by the general budget account of the Japanese government to the government-owned financial institutions is showing a significant increase.

(3) The lending interest rate by the government-owned financial institutions is relatively higher than those by private financial institutions, as their funding cost has stayed at a high level.

With regard to the first problem, most of the unused portion is the allocations to the local governments, and the problem is not so apparent insofar as the government-owned financial institutions are concerned. Even so, however, we may legitimately

suspect that, in the view of the ever increasing share of the guidance policy finance, the apparent success of these government-owned financial institutions in absorbing their share of FILP is ascribable to their exeess aggressiveness.   They might go beyond the assigned role to complement private financing by cutting into the private institutions' territory.

The second problem, which is related to our suspicion just pointed out, leads to another question whether the government-owned financial institutions should be encouraged to expand their shares with bearing losses.   Indeed, there exists a valid criticism that the size of the guidance policy finance has already become too large. Although this criticism might be right, it must be recognized that deficits of government-owned financial institutions cannot be a measure whether these institutions have become excessively large.   Since the guidance policy finance extends to those areas where credit is not easily available privately for one reason or other, additional costs naturally involve in it.

For fiscal year 1985, the estimated financial support to the government-owned financial institutions was 552.5 billion yen, of which 341.3 billion yen or 61.8% was the support for the Housing Loan Corporation.   This corporation must provide housing loans to people at low costs in order to promote construction of private housing units, and for this reason, the generated deficit is accepted.   Therefore, adequacy of the finance, under such circumstances, should not be judged on the basis of the existence of such deficit, but rather by considering whether its size is reasonable compared to the actual effect of the guidance policy in question.   Generally speaking, the guidance policy finance is justified as long as its social benefit is greater than its costs.

In this respect, the third problem essentially gives rise to an issue regarding how the costs of guidance policy finance are shared.   So far, under "the artificial low interest rate policy", the costs of the guidance policy finance were shared by savers through an implicit taxation on deposits (the prevailing rate in money markets minus the regulated rate of deposit corresponds to the tax rate).   The recent deregulation in financial markets, however, is making it more difficult to maintain the traditional structure of cost sharing.   The third problem does indeed point out this difficulty.

Thus, it is now inevitable that the costs of the guidance policy finance are to be assumed directly by taxpayers.   This means that we must be more cautious about the cost/ benefit relationship in the guidance policy financing, compared with the previous practice where the cost was rather ambiguously shared.   In other words, we must know whether the burden shared by taxpayers is justifiable in view of the social benefit due to the guidance policy finance, that is, whether the the former has become overgrown and hence is an excessive burden or not.

In order to allow ourselves such comparative assessment, it is necessary to take a theoretical approach so that we can have a clear idea about the benefit derived from the policy.   As we have said already, the recent deregulation in financial markets has made it easier to assess the cost of the guidance policy finance.   Nevertheless, it is not so simple to evaluate the benefit because it does not accrue in any tangible manner but

likes to be dispersed all over the society. For this reason, many aspects of the accrued benefit could easily remain unnoticed unless we are practically careful in finding them. This situation leads us to the need of theoretical exercises which will be argued in the following section.

1-2. *Raison d'être of the Guidance Policy Finance*

[A] Up to now, the prevailing understanding about the guidance policy finance has been that its purpose is making funds available and/or providing funds at a lower cost to those sectors who have difficulty in getting access to private financing. Normally the first of these functions, to make funds available, is referred to as "the quantitative complementing function", and the second, to provide funds at a lower cost, as "the qualitative complementing function".

Nevertheless, from the view point of economics, it may not always be possible to distinguish these two functions clearly. This is because availability of funds also represents the financial cost if we take account of "the shadow price". While keeping this in mind, we should yet adopt the distinction between the quantitative and qualitative complementary functions and try to examine each of them one by one.

Among those sectors who normally have difficulty in getting access to sufficient funds through private financing alone, resource and energy-related development projects are probably the most significant. Although these projects are likely to be highly profitable from a social point of view, they often involve high risks and take a long period of time to crop the results.

There are possibly two reasons that it is difficult for these projects to obtain enough finance from private institutions. First, these institutions do not have adequate capability to evaluate (or screen) these projects. Second, in many instances these projects have risks that are too high for the private institutions to take. Putting it differently, in order for the government-owned financial institutions to perform the function of quantitative complement, it is necessary that they have better capability to evaluate these projects and/or to bear the inherent risks more than private lenders.

The public sector is actually engaged in planning and implementation of macro-economic policies on national scale. Thus, it is usually in a much better position than private institutions to evaluate the projects of this nature. In these instances, it is desirable that the financing is led by the government-owned financial institutions. However, they do not need to provide the whole funds by themselves. By arranging a syndicate loan with the private financial institutions on the basis of their wealth of expertise in this domain, the government-owned financial institutions can adequately perform the complementary role .

Moreover, while in the case of private institutions their stockholders and depositors are exposed to the risks as the final resort (unless deposits are insured by the government), the government-owned financial institutions can spread the risks among taxpayers at large. Therefore, with regard to these "national projects", or those which require long lead-time and thus long period of time before the fruits of the investments are realized,

the government-owned financial institutions can assume the risks more effectively.   In
such cases, giving a guarantee for credit or direct lending by the government-owned
financial institutions could contribute to achieve the allocation of risks more effectively
from the social point of view.

The Development Bank of Japan or similar type of the government-owned financial
institutions seem to be actually performing this function as organs of the guidance
policy financing.

[B]   The second area where the quantitative complementary function is needed
is financing for individuals, small firms, farmers and fishermen.   Borrowers in this
category do not have sufficient credit-worthiness or collaterals in common.   In general,
their investment projects differ greatly from each other in the expected return and risks.
Moreover, compared with those of the above mentioned national scale ones, risks involved
in these projects are quite so small that there should be little need to allocate them
beyond the framework of private financing.

Especially in the case of financing to small firms, each investment project is so
different in nature that, in order to evaluate it effectively, one must have highly specific,
not general, knowledge and experience about the particular field in question.   Thus,
it is not appropriate to allege, *a priori*, which of government-owned or private financial
institutions have better capability to evaluate such projects.   Depending on the nature
of projects and the past experience of an institution, the institution could have a
special advantage in evaluating projects.

If a government-owned financial institution has been working with financing of
smaller firms for instance, it is highly probable that it has developed better ability to
evaluate such projects through its experience.   Nevertheless, in such the case, what we
have already said in the above would apply anyway.   Therefore, let us turn to a case
in which a government-owned financial institution does not have such a superior
capability in the field in question.

In this case, the quantitative complementing function by the government-owned
financial institution is virtually subsidization.   The difficulty for the borrowers in these
field to get credit from private financial institutions is mainly due to their needs for
preferential terms of lending.   That is, if they agree to pay the price prevailing in the
private financial market, they can find lenders with fund.   Under such circumstances, if
government-owned financial institutions offer more attractive conditions than private
institutions, it means that the borrowers are subsidized by the government.

The qualitative complementing function should be understood as subsidizing in the
same context, as long as the price to be paid by the borrowers is less than the opportunity
cost.   Even if the government-owned financial institutions can actually raise funds at
lower cost for some reasons, their lending is still a sort of subsidies.

As well known, this type of subsidy can be justified when there is a gap between
private and social return on the project, *i.e.*, when there is certain "externality", or when
it is necessary to modify unfair distribution of income.   Nevertheless, if subsidizing is in
itself the purpose, it should not be in the form of cheaper financing by the government-

owned financial institutions. In order for such form to be justified, there must be additional reasons for making it advantageous to combine subsidizing and financing in the same deal.

For instance, if direct subsidizing may cause moral hazard in the private sector, or if classifying firms into qualified and unqualified groups for the purpose of subsidizing needs costly screening process, then guidance policy finance by way of subsidy may be justified. A typical example is the "statistical discrimination" in bank loan market, which could make the guidance policy finance effective.

The statistical discrimination refers to a situation in which several groups, each distinguished from the others by its unalterable "indices", exist and it is empirically known that each group has a different probability to include "good" and "bad" entities. Then an entity belonging to a particular group known to include a relatively large number of "bad" is disadvantaged, even if it is a "good" one (cf. Spence [1974]).

Putting it in the context of bank loan market, for example, suppose that a group of small size firms is perceived to include comparatively larger number of "bad" entities (i.e., with a high risk of default) than a group of large size firms is. Then, compared with a large firm of "good" quality, a small firm of equivalent quality is discriminated because of the negative external effect caused by the existence of many "bad" firms in the same group.

In these instances, if a government-owned financial institution would extend preferential financing to the discriminated small firm, it could improve an allocation of financial resources. This is essentially a Pigou-type subsidy policy through the preferential financing to offset the negative external effects. Since it is neither appropriate nor possible to grant subsidies to all small firms, the financial institution must have the capability to evaluate borrowers and determine if they are entitled to preferential terms or not. For this reason, with proper justification, subsidizing and financing can take place as a package at the same time.

In Japan, this type of the guidance policy financing is undertaken by the Small Business Finance Corporation and some other governmental institutions of the like nature. As it is, in the following section, we shall furthermore study the significance of the guidance policy financing in an environment where the statistical discrimination is prevailing in the bank loan market.

II More Analytical Discussion

2-1. *Statistical Discrimination and the Market Failure*

A financial intermediary usually evaluates the projects of a firm before it lends money to the firm. If the project doesn't deserve to make a loan, the application of the firm will be rejected. The conditions of the loan, if it lends money to the firm, will depend upon the result of the evaluation. In either case, the intermediary must incur the cost of the evaluation.

Even if the size of a loan and the evaluating cost of a potential lender do not vary,

the effective evaluating costs will be different for intermediaries. This is because some intermediaries seldom experience evaluations which do not lead to lending, others may frequently. Therefore, a financial intermediary minimizes the evaluation costs by denying applications from firms in an un-prospective group without evaluating the application. It is natural that financial intermediaries find out indices by which they can discriminate prospective borrowers from the un-prospectives, as they have much experience in lending business. At least they may estimate the effective cost of evaluation by the indices, and charge more for borrowers in the unprospective group. This is the statistical discrimination.

These discriminations may, however, cause allocative inefficiency, if firms with the same social value are differently treated. Consider two firms, for example, with the same projects, but different in size. If an intermediary uses firm size as an index to discriminate potential borrowers, one of the two may not borrow money. The rejecied project will not be executed. Thus, financial resources are invested differently into the two similar projects.

The reason that such an index is used for discrimination is that such an index, firm size in our example, has nothing to do with the quality of the project of a firm, but it tells the average quality of projects of firms whose indices are the same. Firms with good projects may be treated unfavorably, because other firms with the same index have bad projects. Since indices cannot be changed, nor selected, there is no means to get along with the results brought by the index. The market mechanism cannot eliminate the external dis-economy within firms of the same index.

Therefore, other instruments are required to cope with the inefficiency caused by the statistical discrimination. Introducing the government is one of the candidates for remedy. Before comparing alternatives, however, it would be helpful to examine a simple model of statistical discrimination in a financial market.

2-2. *Model of Statistical Discrimination in a Financial Market*

Let's suppose the following situation. Every firm has a project which requires one unit of money. There is only one type of financial intermediary called a bank. So bank lending is the only means for financing. A project will be undertaken if the lending rate from a bank is lower than a cut-off rate. A cut-off rate represents the quality of the project, *i.e.*, bad projects have low cut-off rates. Since bad projects have less prospective of success, the firm will not take such a project using funds with high interest. For simplicity, we assume there are only two types of projects, say GOOD and BAD. While GOOD projects will end with enough profit to return the money back, BAD won't. Let the cut-off rate of GOOD projects be $r_G > 0$, and that of BAD be $r_B = 0$. The type of the project is private knowledge of the firm. The ratio t of GOOD projects to total projects in the economy is commonly known.

When a firm applies for a loan at a bank, the bank may or may not evaluate the project of the firm. We suppose evaluation incurs cost C, and it correctly reveals the type of the project. If it turns out to be BAD, the bank need not lend money. Without

evaluation, however, the bank must lend money to the firm irrespective of the type of the project.

Banks finance their money from a money market at the interest rate i. Banks can borrow any amount of money from the market without affecting the interest rate i. They need not borrow in advance. We assume also that the money market is so large that it can supply enough funds to a bank. The evaluation cost C, and the money market interest rate i are common to all banks.

Let see the profit rates of banks. Let r be a lending rate to a firm, then the accrued interest from lending to a GOOD project is $(r-i)$. When a bank evaluates a project with cost C, it expects to get $t(r-i)$, since the probability that the project turns out to be GOOD and the bank lends money to the firm is t. Nothing but vainly evaluation with cost C happens with the probability $(1-t)$. So the profit of a bank which lends money to a firm evaluating projects becomes

$$P^E = t(r-i) + (1-t)0 - C$$
$$= t(r-i) - C.$$

If a bank lends money without a project evaluation, it occurs with the probability $(1-t)$ that the bank forgoes returns from the firm with a BAD project. In any case, the bank must pay interest i to the money market. Therefore, its profit becomes

$$P^{NE} = t(r-i) - (1-t)i.$$

We would like to avoid the economies where no project is evaluated. So we assume the money market interest rate i is high enough to make lending without evaluation unprofitable. Namely, we assume

$$i > C/(1-t).$$

This implies that in our economy money is so scarce that lending to a BAD project proves to be expensive.

When banks compete with each other in the lending market, profit rate of a bank, P, must be zero. Under the above condition, banks lend money to a firm after evaluation. The lending rate in equilibrium will be

$$r^E = i + C/t,$$

which solves $P^E = 0$.

In order to avoid empty equilibrium, we assume that

$$r_G \geq i + C/t.$$

In sum, the equilibrium without index is that banks evaluate applications from firms and that all GOOD projects are undertaken. No firm with a BAD project can borrow.

Now we introduce an index on firms. The index is easily verified without any cost. It cannot be altered by firms. It classifies firms into several categories. For simplicity we confine the case where there are two types of firms, say LARGE and SMALL. As we have mentioned, the index tells nothing about the quality of the project of the firm.

Some LARGE firms have a GOOD project, other LARGE firms have a BAD one. Similarly, some SMALL firms have a GOOD project, other SMALL firms have a BAD one. Only the ratios of firms with a GOOD project to firms of the same type are different. Thus it tells the avarege quality of firms. We assume

$$t_L > t_S.$$

This means there are more firms with a GOOD project in the LARGE group than in the SMALL group. Remember that t denotes the ratio of total number of firms with a GOOD project to the total number of firms. So the inequality

$$t_L > t > t_S$$

holds.

Since firm size is observable, a bank will easily discriminate a LARGE firm from a SMALL firm. It is known that the SMALL group contains fewer firms with a GOOD project. Costly evaluation of an application from a firm in the SMALL group tends to end in vain. So a bank, which seeks profits, requires higher interest on a SMALL firm. Therefore, lending rates on both group will be different. Let r_L and r_S denote them respectively. In equilibrium, excess gain from lending should be zero for each group. Therefore,

$$r_L = i + C/t_L, \text{ and}$$
$$r_S = i + C/t_S.$$

Obviously, the lending rate on firms in SMALL group, r_S, is higher than that on firms in LARGE group, r_L.

This causes allocative inefficiency. Some firms are treated unfavorably, even though everything but the index is the same. The index itself has no social value, but is priced by private banks. The example below helps to understand how the equilibrium of our private economy is inefficient.

Suppose that the cut-off rate of a GOOD project r_G is in the range below:

$$r_G < i + C/t_S.$$

ThenGOOD projects of firms in the SMALL group never get undertaken. The equilibrium lending rate from banks is so high that the SMALL firm abandon the project. Note that without the statistical discrimination such GOOD projects of SMALL firms are also undertaken, since the lending interest rate, r^E, is smaller than the cut-off rate of the firm, r_G. $t_L > t > t_S$ implies $r_L < r^E < r_G$.

2-3. *Intermediation by the Government*

It is a kind of market failure that GOOD projects of firms in SMALL group are never executed. One of possible remedies is to levy a tax on banks which lend to LARGE firms, and to subsidize banks which lend to SMALL firms.

There are two problems in this method. Firstly, it is difficult for the government to justify acquring information on the activities of private agents. Generally, private agents have freedom not to disclose their private information. Secondly, the cost to

know, to whom a bank lends money, is very high. This is because the government must check each lending. Otherwise, banks could report all the lendings were given to SMALL firms, and increase profits with the subsidies it may get.

These consideration suggests that the government itself should do banking business. It is necessary to execute both subsidizing and lending activities simultaneously. This does not imply that all lending must be done by the government. It is enough for the government to establish a special intermediary for SMALL firms.

The government easily distinguishes private banks from public banks. So, with no extra cost, it can levy a tax on private banks so that their lending rates are risen to r^E. The public bank lends money only to SMALL firms at the same rate r^E, if an evaluation makes it clear that the firm has a GOOD project. The public bank also incurs the same evaluation cost C as the private banks. Receiving subsidies from the government will keep the public bank away from deficit.

Since both private and public banks evaluate applications before lending, no firm with a BAD project can borrow. LARGE firms with a GOOD project borrow money from private banks, because they cannot borrow from the public bank. SMALL firms with a GOOD project borrow money from the public bank, because private banks require higher interest rate than that from the public bank. Their lending rates are equal.

We have demonstrated that government-owned financial institutions can cope with the market failure caused by statistical discrimination. At first, it may seem that the economic structure we used was too specific. Nevertheless, despite the simplicity of our model, we feel that our conclusion will be valid in the real world. That is, the public sector must concern directly to the discrimination process itself, if it is desirable to avoid the inefficiency.

Conclusion

This paper points out the problem of external dis-economy which arises from the existence of *ex ante* information based on statistical data, and the significance of the guidance policy finance as its remedy. This problem and its relation to the guidance policy finance have seldom been recognized explicitly so far. We also give model analysis. According to our study, if there is really diseconomy with regard to financing of small firms, then the activity of government-owned financial institutions, intended to eliminate the disadvantage suffered by small firms through providing them with better financing terms enjoyed by large firms, can prove to be beneficial for improving efficiency in resource allocation.

It must be emphasized that the preferential terms of financing to small firms are to be applied because they serve to improve the efficiency, *not* to protect the weak or to treat everybody equally. As it is, only qualified firms, not all small firms, must be entitled to such preferential terms. For this reason, in order to the guidance policy financing to be really effective, the government-owned financial institutions should have capability in credit rating not inferior to that of private financial institutions.

If it were necessary to give preferential treatment to all small firms, such treatment would be clearly outside of the scope of the guidance policy financing. Everyone can easily identify whether firm is small or not so that direct subsidizing is enough for this purpose. : It would be not be appropriate to set the purpose of financing by Small Business Finance Corporation and the like at the alleviation of unfair income distribution. If actual financing by these institutions has been in such a nature, it would be difficult to justify them.

On the other hand, as delegulation of financial markets is proceeding, the government-owned financial institutions have to more directly depend on the financial support from the government in order to provide preferential terms to the borrowers. It would be most efficient that the government levy taxes upon the entities benefiting from the external economy, $i.e.$, large firms with good quality in our model. The implicit taxation on deposits to cover the cost of the guidance policy financing is no longer feasible, besides it is undesirable from the view point of welfare economics.

This is the implications from our theoretical study in this paper. To advance our research further to assess the present state of the guidance policy finance in Japan, if we limit our scope to financing of small firms alone, it would be required a highly difficult task to measure the magnitude of external economy as mentioned already. We can then conclude whether the size of the financial support given to the government-owned financial institutions, including those implicitly granted, is larger or not than the amount needed to offset the external effect. This kind of work is inevitable to determine the adequate scale of the guidance policy finance.

Supposing difficulties with such kind of work, it must be agreed that most of arguments we have seen concerning the present state of the guidance policy finance are too prejudiced and without enough ground in economics. Including our own, economic analysis of the guidance policy finance is still at a very early stage of development.

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