Toward Reform of Local Bond System in Japan

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Abstract

Outstanding of local government bonds in Japan has increased rapidly after the 1990s, and now reached the highest level. It is important to reduce and manage not only the outstanding amount of national government bonds but also local government bonds.

We can find that the change of the management system of local government bonds in advanced countries because of decentralization and increasing of the government debt in recent years. This paper discusses the international comparison of fiscal discipline of local governments and the characteristics of local government bond systems in the United States and France studied through local survey.

We also model economic institutions behind Japanese local government bond issues and more market-oriented system behind the US local government bond and draw welfare implications from the comparison of Japanese and the US systems. Japanese system requires the permission of issuing from the central government which determines the use of funds raised by local government bond issue and who should buy those bonds. (Ex post) subsides for interest and debt payment as well as the mechanism for the reconstruction of local government budget in the case of (near) default also characterize the Japanese system. Under such heavy protection by the central government, bond yields do not reflect credit risk of local government and therefore ex post burden is transferred to national, not local, tax payers. On the other hand, the US system make credit risk to be reflected in local government yields because of rating and other market oriented mechanism, so that risk are shared by market participants.

Implications for improvement of the Japanese system are presented and discussed toward the end of the paper. As the suggestion in Japan, some points are clarified from the international comparison. In many countries except Japan, local governments face discipline through market mechanism in the market of local government bond. Various actors such as investors and banks in the market support the fiscal discipline. Furthermore, not only the market mechanism but also some fiscal rules play an important role for reduction of local government debt.

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Introduction

The outstanding debt of local governments in Japan increased rapidly in the 1990s against the background of the expansion of public works through economic measures drawn up one after another, to respond to the economic downturn. Currently, this amounts to approximately 200 trillion yen, which is nearly 30 percent of the outstanding debt of long-term government bonds of both national and local governments, and corresponds to approximately 40 percent of GDP, high even from international standards. In order to ensure the fiscal sustainability of Japan as a country, it is becoming inevitable to contain and reduce the increasing accumulation, not only of the outstanding debt of national bonds, but also of local bonds.

Meanwhile, there is big change in the situation of local bonds in recent years. Due to a drastic reform of the Fiscal Investment and Loans Program (FILP) since fiscal 2001, purchases through government funds has decreased rapidly and the share of private funds, i.e. funding through publicly-offered bonds and borrowings from private financial institutions like regional banks and *shinkin* banks (referred to as *enkosai* in Japanese) increased substantially. Furthermore, through the Decentralization Promotion Plan (Cabinet decision of 1998), from the perspective of decentralization, the Local Bond Permit System will be abolished and a system of consultation for local bond issues will be introduced in fiscal 2006. Under the new system, local governments will consult with the Minister of Internal Affairs and Communications (the former Minister of Home Affairs) to issue local bonds (prefectural governors in the case of municipalities) and even when consent is not granted for bond issues, these can be issued when reporting to the local assembly.

The mechanism that supported local bonds until now was a system that presumed centralized local government finance. For this reason, it contained a structural risk making it "easy to borrow and easy to lend," for example, by providing measures through the Local Allocation Tax (LAT) grant for the repayment of a portion of the principal and interest of local bonds, and thereby, providing an "implied government guarantee" of local bonds in practice. As a result, some local governments have incurred excessive debt in comparison to their financial capacity today and there is also a possibility that the judgment of cost effectiveness for individual projects is getting lenient. From now on, in promoting fiscal decentralization, such mechanisms must be reviewed thoroughly and the way fiscal discipline should be in a decentralized local government must be examined.

When observing cases abroad, in recent years, against the background of the trend of global decentralization and the increase in outstanding government debt, there is a

change with regard to the way local bonds are managed in industrialized countries. Also, there has been increasingly more investigative research on the way local bonds and local government fiscal discipline ought to be. Considering the awareness of the problem mentioned above, this article conducted an overall review of previous studies on the international trend concerning local bond management and fiscal discipline. Then, through field studies abroad, a comparative investigation was conducted on the current situation as well as on the problems of the system of each country, in order to examine the insights for the way Japan's local bonds and local government fiscal discipline ought to be.

Below, Chapter I reviews the international classification of local bond management, based on the trend of studies concerning fiscal discipline viewed from the perspective of local bond management, to take an overall look at the characteristics of the financial structure of local governments and at the systems of local bonds in industrialized countries. Among these, this paper took up the examples of countries that are considered to contain much insight particularly for Japan (Chapter II), namely the United States (Chapter III), France (Chapter IV). A close examination was given focusing on the situation of issuance and circulation of local bonds, types and systems of local bonds, actors involved in the system, and rules and measures concerning financial bankruptcy, in order to explore insights for Japan. Then, in Chapter V, to qualitatively compare Japan's system with that of other countries and analyze differences in economic welfare, this paper attempted to make a comparative institutional analysis by giving an adequate description applying a theoretic model. To conclude, Chapter VI takes a general view of the trend of the system of local bonds in each country and indicates lessons that Japan must learn from the case of these countries.

I. The Global Trend of Local Bond Management and Fiscal Discipline
1. Previous Studies on Local Bond Management and Fiscal Discipline
(1) Rising Interest on Local Bond Management and its Background

In the context of the global current of decentralization in recent years and the increase in outstanding government debt in various countries in the 1990s, how the borrowing of local governments should be controlled has become a major issue for each country. This issue has attracted much interest, particularly in euro countries that – due to the European monetary integration – are required to manage the fiscal balance of the general government including local governments, as well as in developing nations that are rapidly being decentralized.

Given such a background, in recent years, there is increasingly more investigative

research on how local bond management and local government fiscal discipline in industrialized countries and all countries ought to be. Through comparative investigation targeting a wide range of countries and regions, it is gradually becoming possible to grasp the global trend.

In examining the way Japan's local bond management and fiscal discipline ought to be, this chapter gets a hold of the international trend of local bond management from previous studies.

(2) Investigative Research on Local Bond Management

In previous investigative research, in addition to studies that compare and examine how local bond management ought to be per se, there are others that deal with rules concerning local borrowing (rules for bankruptcy of local governments and rules on bailout from the central government, etc) or on the form of local bond issues (securities financing or over-the-counter transaction [debenture financing], etc).

The actual situation of borrowing by local governments[1] by country indicates that in the same way that the local public finance system differs by country, the way local bonds are managed is also extremely diverse. Nonetheless, in previous studies, certain attempts have been made at classifying local bond management and there are numerous analyses. It can be stated that such classification serves as a reference when trying to understand the positioning of Japan's local bond management.

The IMF study by Ter-Minassian (1997) represents a comprehensive international comparative investigation. This study organizes the way local bonds are managed in 20 industrialized countries, 13 developing countries and 20 transition economies. In addition, the OECD study by Joumard (2002) conducts an analysis on the framework of budget planning including local borrowing, and the mechanism of its implementation, with a focus on industrialized countries.

Studies that provide a detailed analysis mainly of European countries are those by Dafflon (2002) and the Council of Europe (2002). Dafflon (2002) discusses balancing the budget and controlling debt in local governments in 10 European countries, while accounting for varying definitions of local government finance activity in each country. Council of Europe (2002) analyzes the trend of local financial administration of 27

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[1] "Local government" is a term that is adequately applied when this stands in equal relation or position to the central government. However, in this chapter, for convenience, regardless of such relationships, it is used as a general term referring to autonomous governing bodies and entities at the local level, as against the central government. Although in some parts of Chapter II and beyond, "local government" is used as a general term against the central government, in the itemized discussions terms such as local government, state or provincial government, municipality, local entity and so forth are used selectively according to the characteristic of the relationship between the governments of each country.

European countries based on a questionnaire survey.

Below, based on these previous studies, and taking into account the individual situation of each country, the trend of local government fiscal discipline in foreign countries are organized from the perspective of local bond management.

2. International Classification of Local Bond Management
(1) Four Types of Local Bond Management

The common way to classify local bond management in foreign countries, is the following 4-type classification by Ter-Minassian (1997): ①administrative control, ②market discipline, ③cooperative control, and ④rules-based control. See Table I – 1.

In the administrative control approach (①), the central government holds direct administrative control over borrowing by local governments, which takes the form of setting annual limits on local borrowing or granting permission for borrowing. Another ways is for the central government to consolidate all borrowings and then allocate the obtained funds to local governments. Present day Japan, UK, Greece and Ireland, among others, are classified as this type.

In the market discipline approach (②), local borrowing depends entirely on the market and the condition for issuing bonds and requirements for obtaining loans are determined by credit ratings, market evaluation and risk premiums. This disciplines the public finance administration of local governments. This type leaves no room for the central government to restrict limits on borrowing or supervise. Canada and France, among others, fall into this category.

In the case of cooperative control by central and local governments (③), the overall borrowing and the breakdown of borrowing by each local government and such are determined based on the negotiation between the central and local government. It is considered that Australia and Germany, among others, fall into this category.

The rules-based control approach (④) refers to establishing rules as in the following and regulating based on these rules. Such rules are: limits on overall debt, permission for new bond issues according to the ratio of debt service (of the principal and interest of the debt) to revenue and such, restriction for borrowing that will have a negative effect on the entire macroeconomy (such as foreign bonds), and the "golden rule," which restricts borrowing purposes to investment expenditure for infrastructure development and so forth (similar to the principle of construction bonds in Japan). It is said that the US and Switzerland fall into this category.

Table I-2 shows how the form of local bond management of 53 countries worldwide

can be classified by type.[2] It must be noted that in practice, most countries manage local bonds by combining these four approaches and therefore, it needs to be understood that the classification here focuses strictly on the relatively dominant approach in each country.

(2) Administrative Control Approach Local Bond Management
(i) Overview of the Administrative Control Approach

It can be stated that administrative control over local government borrowing by the central government is an approach mainly seen in unitary states. In addition, there are many cases of strong central government control, where financial markets are undeveloped, or in developing countries, where decentralization has not been fully carried out.

Examples of industrialized nations are the UK and Japan. In the UK, local bond management was also strongly centralized, but in recent years, institutional reform is being carried out in the direction of emphasizing local borrowing through self-responsibility and self-discipline.

(ii) The Significance and Challenge of the *Administrative Control Approach*

It is a common view among specialists that central government controls on local borrowing should be gradually lifted with the progress in decentralization and improved access to the financial market.

On the other hand, it has been pointed out that there is certain significance to administrative control from macroeconomic considerations of fiscal management. Ter-Minassian (1997) gives the following aspects as the significance of administrative control by the central government:

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[2] Certain attention is required for the classification of types and the description of systems according to Ter-Minassian (1997). As mentioned above, there is a possibility that the classification of a country may vary according to how the institutional weight is understood. For example, although bond issues of local entities were liberated in the 1980s in France and so it is regarded appropriate to classify France under the market discipline approach, on the other hand, rules such as the attainment of a balanced budget and the prohibition of local bond issues for purposes other than in capital accounts are applied. Equally in Switzerland, rules that restrict the borrowing of cantons and kommuns to investment projects or require referendums are institutionalized (both in Joumard [2002]). In Canada as well, there are some provinces that stipulate a balanced budget in the constitution of the province. It appears that it should be considered that even in countries that are said to adopt the market discipline approach, some sort of rule exists, albeit differences in its importance.
Furthermore, in Rattso (2002), regarding Belgium and Denmark classified in the *cooperative control approach*, it is pointed out that although borrowing limits are determined through the negotiation between central and local government, because the degree of discretion of local governments is small, it is closer to the administrative control approach. In addition, it considers that Norway and Spain, which are classified in the administrative control approach, do not have as strict central government controls as does Italy (classified in the rules-based control).

The issuance of foreign bonds is closely related to macroeconomic policy and requires management under the responsibility of the central government.

For the issuance of foreign bonds, joint issuance through the coordination of the central government is preferable over individual issues in small lots.

There is concern that the deterioration of credit ratings of a small group of entities may influence the rating of other entities. Thus, there is significance in dissolving such concerns through central government guarantee and so forth.

Foreign investors tend to strongly demand central government guarantee for purchasing local bonds.

Nonetheless, regarding the domestic market, in the light of importance that decision-making on investments be carried out as close to the community involved as possible, as well as the necessity to prevent easy fund-raising relying on central government guarantee, it would be necessary to establish an arrangement for discipline through market mechanisms and rules-based disciplines, to reduce the role of the central government when the fiscal management ability of local governments grow.

(3) Market Discipline Approach Local Bond Management
(i) Overview of the Market Discipline Approach

Generally, it is considered that central government involvement over administrative and fiscal operations of local governments should be reduced as decentralization advances. A look at countries where decentralization has advanced shows that central government controls are weak, and that instead, market mechanisms play a major role in disciplining local government finance.

It is believed that Canada, Sweden and Finland, among others, are countries in which disciplines through such market mechanisms are dominant. Also in the US, in practice the market plays an important role in fiscal discipline. For example, in Canada there are no restrictions for the borrowing of provincial governments through central government controls. The borrowing capacity and repayment capacity of provincial governments are monitored by the financial market and/or major credit rating agencies.

(ii) Premises for the Market Discipline Approach

It has been pointed out that for market discipline to fully function, a number of premises, as follows, are required:

There must be full disclosure of the borrower's liabilities and repayment capacity.

There must be a completely open market and restriction of portfolio (allotment of national or local bond possession) on financial institutions must not exist.

The government's commitment not to provide bailouts for lenders in the event that the borrower defaults on its debt obligation must be reliable.

The borrower must be capable of making smart policy decisions in step with market signals (falling credit ratings, etc) before new borrowings cannot be obtained.

The four points above are considered to be the basic requirements.

In the US and Canada, where it is believed that public finance is disciplined through market mechanisms, these four requirements are met for the most part. Regarding ①, disclosure of financial information is made on an accrual basis in accordance with corporate accounting standards. In the US, the MSRB (Municipal Securities Rulemaking Board) and GFOA (Government Financial Officers Association) establish guidelines for disclosure and there is highly transparent disclosure. Equally with regard to ②, local bond markets have been established and financial institutions engage in underwriting and circulation of local bonds without restriction. With regard to ③, it is clearly prescribed that the federal government will not provide bailout even when state/provincial governments default. With regard to ④, it is common for heads of local governments and those in charge of financial affairs to act with a strong awareness of ratings by credit rating agencies.

On the other hand, among countries categorized in the market discipline type, there are those that due not fully meet these requirements. For example, regarding ③, there are only a few countries where bailouts are strictly prohibited. Even in Sweden and France, the central governments have bailed out local governments in the past.

Equally, with regard to ④, it has been pointed out that when the term of those in charge of policy is short, out of nearsighted behavior, biased by the completion of projects during one's term, there is a tendency to overlook falling ratings. Even Canada – where the local bond market is relatively high in transparency – has the experience of market discipline over local government borrowing not functioning properly, when outstanding debt of local governments soared rapidly, despite the decline in credit rating and the rise in risk premium, until the early 1990s.

Although fiscal discipline through market mechanisms is a highly transparent, effective method, in practice, it is not always easy to sufficiently provide an environment in which market discipline functions effectively, given different socioeconomic conditions and political situations of each country.

(4) Local Bond Management through Cooperative Control and Rules-based Control

In securing the fiscal discipline of local governments, it cannot be asserted that administrative control by the central government is necessarily the desirable method.

Yet, on the other hand, it is difficult to expect that discipline will function fully by market mechanisms alone under situations in which the political structure and the socioeconomic environment of each country impedes the establishment of conditions that are premises for it.

Under such a situation, it becomes necessary to complement market mechanisms by cooperation and negotiation between the central government and local governments and/or the application of rules.

(i) Characteristics of *Cooperative Control*

Cooperative control is the way by which limits for bond issuance is decided through cooperation of the central and local government. In Australia, government borrowing is determined through adjustments by the federal and state government. (Official consultations are held in the National Loan Council). At this instance, the fiscal situation, the level and needs of infrastructure development, the macroeconomic situation and so forth, of each state and territory is considered.

Cooperative control is a valid method, in the aspect that information is mutually shared between the central and local government, facilitating dialogue. It can be said to be a method that is more convincing for local governments in comparison to administrative control.

However, the frequent occurrence of situations in which negotiation between the central and local government is prolonged by political factors can be pointed out as a negative effect. Furthermore, in a case where either one of the governments stands in a weaker position, "cooperative" control does not function properly. If the position of the local government is weak, this would be de facto administrative control by the central government, whereas in the opposite case, it would be difficult to prevent increasing debt of local governments.

(ii) Characteristics of *Rules-based Control*

Regardless of being a federal system or a unitary state, there are many cases in which certain rules are stipulated for the borrowing of local governments by the Constitution or other laws. There are often rules that set limits to the absolute level of debt, limit borrowing to specific purposes, or restrict new borrowing through debt service (including principal and interest) ratio to revenues and such.

The characteristic of rules-based control lies in the fact that transparency is high and fairness is ensured. That political horse-trading between the central and local government can be avoided is also a merit. On the other hand, the emergence of a local

government that tries to act through loopholes is considered to be a demerit. Examples of such behavior are, trying to attain a balanced budget by making the distinction between operating expenditure and investment expenditure ambiguous, or by creating administrative bodies or affiliated enterprises that can be treated as off-the-books transactions.

In order to make rules-based controls function effectively, a clear and unified accounting standard for public entities, as well as strict restrictions (abolition, if possible) of off-the-books transactions must be established. A data system that provides reliable data on all spending of public entities at all levels must be established. Moreover, policy such as privatization that reduces to the greatest extent, the possibility for local governments to set up external entities that may engage in off-the-books transactions is also required.

3. The Situation of Local Government Finance in Major Countries
(1) Country-wise Comparison of Outstanding Debt

The following is a closer look at the characteristics of the structure of local government finance and local bond management in major industrialized countries. Figure I–1 is a comparison of the share of outstanding debt in GDP by level of government (central and local) in major industrialized countries (G7 + Sweden).

In Japan, the central government's debt-to-GDP ratio exceeds 100 percent, while the ratio approaches 40 percent in the case of local governments. It has the highest outstanding debt among industrialized countries. Similarly, Canada's outstanding debt of local governments soared rapidly in the early 1990s and the debt-to-GDP ratio exceeds 50 percent as of 2002. In Canada, after the 1990s, fiscal balancing rules have been established in each province, in an attempt to improve the fiscal situation.

(2) Country-wise Comparison of the Fiscal Balance

Figure I–2 takes a look at the fiscal balance of the general government (national and local governments, and social security funds).

In recent years, although a tendency for deteriorating fiscal balance can be observed in many industrialized countries, that of Japan is particularly notable. OECD (2005) points out this problematic phenomenon. Also for local governments, there are deficits not only in Japan, but in Germany, Italy, Sweden and the US as well. On the other hand, there is a fiscal surplus in the local governments of the UK, France and Canada. Particularly in Canada, although debt increased in the early 1990s, since then efforts have been made to improve public finance by each province, and today there is a shift to

a surplus.

4. The Situation of Local Bond Issues and Local Bond Systems in Major Countries
(1) The Situation and Scope of Local Bond Issues

Table I–3 indicates that the scale of local bond issues in many countries stands at a level of some 10-15 percent and Japan also falls in this range. In the UK, where the fiscal size of local governments is small, it is low at around 3 percent.

As to the scope of bond issues, in most countries it is limited to capital accounts and investment expenditure. However, in countries such as Sweden and Germany, the issuance of deficit-covering local bonds is permitted under certain circumstances.

(2) Central Government Involvement and Rules Concerning Local Bond Issues

The involvement of the central government over local bond issues and rules concerning bankruptcy in major countries can be organized as shown in Table I–4.

Moreover, regarding rules concerning local bond issues, it is believed that the establishment of rules for bailouts in the event of financial difficulties or rules concerning bankruptcy, and so forth are important. Although in many countries rules for bailouts when facing financial difficulties are laid down in one way or another, there are cases such as that of the US that provide rules concerning bankruptcy. It is particular in the sense that rules concerning bankruptcy are established, which precisely provide debt liquidation schemes in the event of financial failure, whereas the method of taking advance measures to prevent bankruptcies is adopted broadly.

(3) The Way Local Bonds are Issued and Underwriters

As to the way local bonds are issued, this can be roughly grouped into the following: UK, where government funds make up for almost the entire share; European countries such as France, Sweden and Germany, where the share of direct borrowing from financial institutions are high; and the US and Canada, where publicly-offered bonds are the majority. In Japan, although private funds have been introduced to a certain degree, government funds remain high, accounting for about 30 percent and around 10 percent is purchased by a government financial institution (Japan Finance Corporation for Municipal Enterprises, JFM). Thus, it can be said that Japan finds itself in a midway position between the UK and other European countries. See Table I–5 and I–6.

Regarding financial institutions from which borrowing is made directly, there is a difference in the way funds are obtained. Whereas in Japan, private financial institutions raise funds through deposits, Germany's securities banking group and

Sweden's *kommun invest* (the Swedish local government funding agency) – both of which are leading funding agencies – raise funds by issuing bonds on the market and so, are actually joint issuance institutions. The French *Dexia Credit Local* is also shifting its fund-raising method to the market.

(4) Systems Concerning Bankruptcy of Local Governments

With regard to rules concerning bankruptcy of local governments, the US Code of Bankruptcy applied to municipalities is a representative example. Moreover, in Table I–7 appeared in Council of Europe (2002), five countries replied that bankruptcy of local entities is legally recognized. However, in the actual situation, of the five European countries, those that provide up to concrete procedures for bankruptcy are limited to two countries.

As to bailout measures by the central government, it is regarded that the direction to hold back financial assistance is desirable, since it would lead to a moral hazard. Even when providing financial assistance, in the sense of avoiding unlimited aid, it is believed that rules on bankruptcy and so forth should be laid down, but in reality, few countries have bankruptcy rules and procedures for local governments.

In the chapters that follow, individual cases of the local bond system in major industrialized countries (Japan, US, France, Sweden, Canada) will be treated.

II. The Local Bond System of Japan
1. Local Bond Permit System
(1) Overview of the System

In this section, a general view will be given on Japan's local bond system. In Japan, although local bonds are borrowing by municipalities for a specified purpose, as a general rule, municipalities cannot issue bonds at will. There is a system (Local Bond Permit System) that obliges municipalities to obtain the permission of the Minister of Internal Affairs and Communications or the prefectural governor when issuing local bonds. The Ministry of Internal Affairs and Communications (MIC; the former Ministry of Home Affairs) controls permission for issuing bonds, in real terms.

In addition, the Local Autonomy Law and the Local Finance Law, that are both national laws, prescribe municipalities that can issue local bonds. In these laws, municipalities that are imposed restrictions for issuing bonds are defined as follows: Local governments with a ratio of real deficit to standard fiscal amount that is equal to or more than a certain level (5 percent for prefectures, 20 percent for municipalities) cannot issue bonds for construction works in cases other than when implementing

financial reconstruction in conformity with the Law on Special Measures to Promote Local Public Financial Reconstruction (described below).[3]   Other than that, entities in arrears with the repayment of principal and interest on local bonds, entities with a tax collection rate under 90 percent of the current year's local taxes, entities with an ordinary tax rate below standard rates set out in the Local Tax Law, that is a national law, entities with an average debt expenditure ratio used at permission to issue local bonds in the period of the past three fiscal years, of 20 percent or below, and entities with a situation of fiscal spending notably lacking in adequacy, but not making the effort required to rectify this situation, will be restricted in the issuance of bonds or be denied permission.[4]

Under such legal regulations, the amount of bond issues permitted in each municipality is determined in the following way through the Local Bond Plan: When deciding the amount of bond issues to be permitted through the Local Bond Plan, consultation is held between the Minister of Finance and the Minister of Internal Affairs and Communications. When permission to issue local bonds is granted, the type of institution that will become bond subscribers is also determined. Regarding bonds that are given permission to be covered by government funds, the Ministry of Finance will finance them. In other words, the Local Bond Plan, determines not only to grant permission for bond issues at all, but also simultaneously decides the allotment of subscribers (lenders) of the authorized local bonds.

Bond subscribers can be classified into the following: government funds (Fiscal Loan Fund [former Trust Fund Bureau funds], Postal Life Insurance [*Kampo*] reserve funds [former Postal Life Insurance funds], etc), Japan Finance Corporation for Municipal Enterprises (JFM) funds, and private and other funds. Private and other funds are divided into public offerings, funds lent by banks (former *enkosai* funds: mutual aid association funds, bank funds), and others. FILP funds are used for a large part of government funds and JFM funds (these two combined are also referred to as "public funds"). Of these types of funding, in recent years, the share of government funds in the entire Local Bond Plan stands at about 50 percent, the share of JFM funds is about 10 percent, the share of funds lent by banks is about 30 percent, and public offerings cover about 10 percent. In addition, the composition of subscribers of local bonds in Japan, on outstanding basis is shown in Figure II–1. As a characteristic it can be mentioned that

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[3] Net balance is defined as follows: Net balance = gross revenue – gross expenditure – revenue source to be rolled over into the following fiscal year. Standard fiscal amount refers to the general revenue source that each local government can continuously obtain as revenue in standard situations.
[4] Debt expenditure ratio is an indicator used at permission to issue local bonds and is roughly equivalent to the weight of government bond spending in relation to standard fiscal amount

there is a high ratio of public funds and that financial institutions – regardless of being public or private – account for the great majority of subscribers, while household subscribers are close to none. Furthermore, the share of publicly-offered bonds has increased notably in recent years.

How does the Local Bond Permit System actually work? Doi (2002) examine the significance of the Local Bond Permit System, based on Tanimoto and Ishii (1986, in Japanese). It can be inferred from these studies that local bond issues under the Local Bond Permit System "prevents a biased concentration of funds to influential entities and selectively distributes long-term low-interest funds (government funds, JFM funds, etc) to entities with weak financial capacity and funding ability" (Tanimoto and Ishii, 1986, pp. 60-61). Furthermore, it appears that "the need to distribute local bonds from a comprehensive perspective, while relating this to the distribution method and such of general revenue sources of the local allocation tax grants" (Tanimoto and Ishii, 1986, p. 61) is reflected in the line of policy for Local Bond Permits.

In practice, although fiscal funds and regional banking funds are distributed among all municipalities, albeit some differences in amount, funds through public offerings can only be acquired by municipalities that can issue publicly-offered bonds. Currently, since entities that are permitted to issue these bonds are limited to prefectures and ordinance-designated cities, it is not issued at all in most municipalities. In such municipalities, local bonds are purchased through public funds or funded by regional banks.

(2) New Initiatives concerning the Local Government System

In recent years, there is growing interest on new initiatives for local bonds. Lead by the issuing of mini publicly-offered bonds targeting individual investors for the first time, by Gunma Prefecture in March 2002, the issuing of mini publicly-offered bonds has followed in local governments throughout the country.[5] The fact that MIC is encouraging all local governments to issue resident-participatory mini publicly- offered bonds for the diversification of funding methods also lies in the background.

Until now, publicly-offered bonds were issued by a small group of prefectures and ordinance-designated cities. Presently, 16 prefectures and 12 ordinance-designated cities issue these bonds. Since fiscal 2002, the 2-Table Approach has been introduced as the method for determining the conditions. Whereas all public offering entities issued bonds under the same conditions until then, it was recognized that the issued lots are

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[5] Mini publicly-offered bonds are local bonds in small amounts for individual investors, while conventional publicly-offered bonds are local bonds for financial institutions.

large and disparities exist in circulation. Therefore, it was decided that decisions for Tokyo Prefecture would be made separately from other 27 entities. Furthermore, the 27 entities other than Tokyo Prefecture agreed to jointly issue publicly-offered bonds from fiscal 2003.

It can be said that such initiatives aim at pushing forward the public offering of local bonds by a large number of municipalities in order to improve the market of publicly-offered local bonds.

However, such initiatives do not intend to accept interest differences arising from the financial situations between municipalities with varying financial capacities. For example, under the abovementioned 2-Table Approach, interest differences disappear six months after its introduction. Table II-1 shows the yield of applicants for publicly-offered bonds since April 2002. When the 2-Table Approach was initially begun, a difference was be observed in the yield between the bonds of Tokyo Prefecture and those of other 27 entities. However, after six months in September, the difference had completely disappeared and remains so today.

2. The "Implicit Guarantee" of Local Bonds by the National Government
(1) The Measures through Local Allocation Tax Grants for the Repayment of Principal and Interest of Local Bonds

It is assumed that the "implied guarantee" of local bonds by the national government lies in the fact that differences in the financial capabilities among local governments are not reflected in the conditions for issuing local bonds. It is understood that the "implied government guarantee" of local bonds is generally provided through the Local Bond Permit System, the measure through Local Allocation Tax (LAT) grants for the repayment of principal and interest of local bonds, and the Local Public Financial Reconstruction Program.

Partly due to the fact that such systems are currently applied, "insolvency" of Japan's local governments does not exist in the strict sense. That is to say, laws and regulations on the insolvency of local governments do not exist. However, there have been local governments that could not pay off their entire debt with their own tax revenue alone and in reality, in such situations, the national government has provided de facto bailout through the following measures.

First, through the Local Bond Permit System, at the time of issuing bonds, there is control over local governments with a relatively unsound financial situation, using the debt expenditure ratio.

Furthermore, there is a measure through LAT grants for the repayment of principal

and interest of local bonds (a measure that increases LAT grant entitlements when spending on government bonds increases). To begin with, the LAT grant – the revenue source being a portion of national taxes and borrowing– is allocated to each local government through a calculation method determined by the MIC. MIC calculates the Standard Financial Revenue (estimated tax revenue) and Standard Financial Need (estimated expenditure) for the corresponding fiscal year of each local government under a uniform standard. LAT grants are allocated to those public entities where Standard Financial Need is greater than the Standard Financial Revenue, in proportion to its shortage of financial source (Standard Financial Need minus Standard Financial Revenue). It is not granted to local governments where the Standard Financial Revenue is greater, such as Tokyo Prefecture.[6]

For the calculation of Standard Financial Need, the repayment cost of bonds such as the depopulated area aid bond, temporary special fiscal bond, and temporary tax cut supplement bond are included.[7]   This means that in the case where expenditure for a certain project is funded through local bonds despite not having the ability to repay this cost in the future on its own, the project will be financed, not by future tax revenue of its own region, but by future national taxes (tax grants) including tax revenues collected from other regions, while this region will continue to benefit from the administrative service financed by such revenue sources. Furthermore, if a project that is funded by local bonds that is included in the calculation of Standard Financial Need is implemented with priority, grant entitlements will increase since Standard Financial Need increases.

Through such measures, even local governments with weak financial capability can issue local bonds. This prevents local governments, as issuers of local bonds, from having an awareness of being debtors, and therefore it is considered to be a factor for fiscal discipline to not function properly.

(2) Local Public Financial Reconstruction Program

Next is an overview of the Local Public Financial Reconstruction Program. Based on the Law on Special Measures to Promote Local Public Financial Reconstruction, when the deficit of the net balance exceeds 5 percent and 20 percent of the standard fiscal amount for prefectures and municipalities, respectively, the local government in question is restricted from issuing bonds and must apply to become an entity

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[6] As discussed in Doi (2004b), the structure of this calculation method contains an incentive that impedes the fiscal discipline of local governments

[7] Doi and Bessho (2005) gives an attempt at empirical analysis of the economic effect of tax grant measures for the repayment of principal and interest on local bonds.

undergoing financial reconstruction in accordance with the mentioned law, if it wishes to issue local bonds. The entity undergoing financial reconstruction must push forward financial reconstruction either through the method of self-reconstruction – carrying out financial reconstruction on its own without receiving aid from the national government – or the government-aided method

However, Doi (2004b) indicates the following points as elements of the abovementioned Local Public Financial Reconstruction Program that make it incomplete as a scheme for resolving insolvency of local governments. As it can be inferred from the motive to apply to become an entity undergoing financial reconstruction through the government-aided method, since a restriction on bond issuance will be imposed by not applying, applying in order to mitigate such restriction works as a motive. Indeed, it is beneficial in the sense that efforts to reduce expenditure or increase revenue are imposed when carrying out the reconstruction plan after being designated as such entity. However, such entities are not compelled to hike local taxes, and so in practice, (although this entails self-help in part, above all,) the Program has a strong aspect of being a bailout measure using subsidies such as LAT grants. Furthermore, Doi (2004b) demonstrates that because the Financial Reconstruction Program works by establishing thresholds to the net balance ratio, emphasis is placed on the improvement of the net balance (cash flow balance, in corporate finance terms) and so, although fiscal balance is enhanced in this sense, the improvement of primary balance – which is closely related to the sustainability of debt – is not facilitated.

In addition, because reduction and cancellation of existing debt is not sought under the Financial Reconstruction Program, as a result, there were a large number of local governments that turned to LAT grants for a great part of their revenue source to repay existing debt. In other words, because default on debt obligations of local bonds is not permitted, contrarily, it results in the burden being placed on LAT grants (of which national taxes are its revenue source).

III. The Local Bond System of the United States
1. Market and Economic Actors Concerned with Local Bonds
(1) Overview

To begin with, the local public finance system of the United States – under a federal system – is a decentralized system in comparison to that of Japan – a unitary state. In addition, in the US local bond (generally known as "municipal bonds") system, in contrast to Japan, the central government is not involved in the annual bond issuing plan or individual bond issues. Rather, municipal bonds issued by local autonomous

bodies are basically underwritten by private economic actors through the market, albeit slight differences according to the state.[8] Moreover, a system to increase the credibility of the municipal bond transaction market is in place.

The amount of municipal bonds issued in the US in recent years shows a remarkable tendency on the rise, and as shown in Figure III − 1, outstanding local bonds in the year 2000 amounts to 1.45 trillion dollars. In the background is the reduction of the fiscal deficit of the federal government, which became a challenge in the period from early 1980s to mid-1990s. For this reason, subsidies from the federal government were cut, and since powers were transferred to the state and local governments, municipal bonds were issued throughout the country as a means of raising revenues. One of the characteristics is that a large part of the funds obtained through municipal bonds was spent on the development of social infrastructure such as transportation, waterworks and sewerage, gas, electricity, as well as on the construction of public facilities such as educational institutions and hospitals.

Many economic actors exist within the US municipal bond system. Figure III − 2 illustrates the overview of the US municipal bond system. If its characteristic were to be stated at the beginning, it is that the US municipal bond system, in contrast with the centralized system of Japan, is market-oriented and decentralized.

Here is a brief explanation of the economic actors involved in the municipal bond market (Detailed descriptions will be given later, as necessary). First, as bond issuers, there are local autonomous bodies such as states, municipalities, public enterprises and school districts. In addition, there is a bond bank of the state that undertakes joint issuance of municipal bonds.

Some municipal bonds have debt guarantees attached to it. In most cases, private companies specializing in financial guarantees are involved. In addition, when bonds are issued, in some cases municipal bonds are given ratings by credit rating agencies, at the request of the bond issuer.

The government and various regulating agencies are involved in the rulemaking of tax exemption conditions and so forth for issuing bonds, On the other hand, there are also self-imposed regulations of the industry, where industrial organizations including bond issuers are involved.

Figure III − 3 shows the composition of creditors of municipal bonds in the US. In the year 2000, municipal bonds purchased directly by households accounted for 35.0 percent of all bonds and reaches 68.7 percent when indirect possession through investment

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[8] The varying public finance system according to states is discussed, for example, in Poterba and Rueben (1999).

trusts is added. The share of municipal bonds held by households is extremely high. Activities to promote the purchase of municipal bonds by individual investors are also frequent. The local governments that issue bonds are doing so in amounts with a face value of some 1,000 dollars, which are small amounts that make it easier for individual investors to purchase.

In addition, the fact that there are many municipal bonds issued as tax-exempt municipal bonds also constitutes a motive for individual investors to purchase them. Tax-exempt municipal bonds are those that are free of federal income tax. Income through interest on tax-exempt municipal bonds is free of federal income tax. Sectors that become tax-exempt are generally projects that are strongly non-profit, and specifically, the National Congress decides on and establishes laws for it. Based on this, the Department of Treasury establishes regulations, and the Internal Revenue Service (IRS) conducts administrative guidance based on these regulations.

However, it must be mentioned that adequacy requirements for tax-exempt municipal bonds are not determined only through such laws; the application of tax exemption is defined through subsidiary rules and administrative guidance practices. In recent years, since projects through cooperation with the private sector, the so-called public private partnership (PPP), are making headway, there are a growing number of cases where it becomes difficult to decide whether a project is of profitable or non-profitable character. Therefore, project owners are coming up with a variety of techniques to meet the requirement for tax exemption.

On the contrary, taxable municipal bonds are municipal bonds that are subject to taxation of the federal income tax and so forth. Bonds that do not meet the requirement for tax exemption, for example, because profitability is recognized in the project that is to be funded through those bonds, are issued as taxable municipal bonds.

In comparison to taxable municipal bonds, the amount of tax-exempt municipal bonds issued is considerably higher. As shown in Figure III – 4, In the year 2002, whereas the amount of taxable municipal bonds issued was 18.7 billion dollars, tax-exempt municipal bonds amounted to 311.3 billion dollars.

In this way, systems and institutions are arranged in the US so that market-centered transaction of municipal bonds is carried out smoothly. In the following, the function and behavior of each economic actor involved in the municipal bond system is examined by actor, as well as the recent trend, while focusing on the part of Section 4 that deals with theoretic analysis.

(2) Market Surveillance Organizations

In the US, market surveillance organizations have been created to ensure the credibility of market transactions of municipal bonds. Market surveillance organizations are subject to the oversight and monitoring of the Securities and Exchange Commission (SEC), as in the case with ordinary stocks. The SEC, along with the Municipal Securities Rulemaking Board (MSRB) and the National Association of Securities Dealers (NASD) are the three key institutions.

The SEC is a quasijudicial agency with a supervisory function based on the Federal Securities Law. It applies related laws and regulations to protect investors. It also has the role of ensuring the fair operation of the securities market, starting with the disclosure of financial-related information. The MSRB, a market surveillance organization for municipal bonds, was established in 1975 to develop rules regulating securities companies and banks involved in underwriting and trading municipal bonds. Although the MSRB is a self-regulatory organization, it is subject to the oversight of the SEC. The MSRB makes rules concerned with municipal bonds only for banks and securities companies, but rules go into effect only after being approved by the SEC.

The NASD is an organization that enforces the regulations of the securities sector. In other words, regulations established by the MSRB are enforced by the NASD via the SEC. Originally, the SEC has no relation with organizations regulating banks, but since it is in a position to approve the regulations of the MSRB and because banks are dealing with municipal bonds, it maintains relations with the Federal Reserve Board, the Federal Deposit Insurance Corporation and the Office of the Comptroller of the Currency (OCC), through which it enforces regulations.

(3) Credit Rating Agencies

In the US, there is no legal basis for municipal bond issuers to obtain credit ratings. Nonetheless, as it can be observed by the fact that the two leading credit rating agencies give ratings to municipal bonds – Moody's since 1918, and Standard and Poor's (S&P) since 1940 – rating municipal bonds in the US has accumulated history over the years.

It was with the Great Depression of the 1930s that the reliance on credit ratings rapidly increased in the US. This is because in this period, at the same time that many municipalities defaulted, the probability of default was lower in bonds with higher ratings. Credit rating agencies expanded their scope of operation by beginning ratings on euro bonds in the 1970s and initiating ratings of Japan's foreign bonds in 1974. Currently, these agencies give credit ratings to bonds in almost all major financial markets worldwide.

The way ratings are expressed differs slightly according to the agency, but it is

conducted with the same criteria for judgment from Aaa, which indicates the highest credibility for municipal bonds, down to bonds unfit for investment. For example, ratings by Moody's are in the order of Aaa, Aa, A, Baa, Ba, B, Caa, Ca, and C.

The procedure for assigning ratings to municipal bonds is nearly the same as for private sector bonds. Thus, upon request from the bond issuer, a set of documents concerned with bond issues, which is presented by the issuer, as well as the database on the regional economy and financial affairs prepared independently by the rating agency are referred to, and the situation is examined in relation to other local governments. Unlike private bonds, the political risk of the local government is taken into account. This political risk takes into consideration the contents of the course of policy of the head of government, the strength of his/her political base, the relationship with the local assembly and such. Therefore, in the process leading up to assigning ratings, the analyst attaches importance to what is discussed with the head of the local government. It is said that if the head of government expresses his/her intention to work strongly for the financial reconstruction in their conversation, this could be a factor for enhancing the ratings of the bond to be issued by this entity.

As to the indicators used when giving ratings, Moody's applies 30 variables and S&P applies 27 variables. Specific indicators are, for example, outstanding liabilities, breakdown of liabilities, evolution of liabilities, asset value evaluation, tax system and the tax rate level, evolution of revenue, evolution of expenditure, personal income, and trend of industrial location.

Let's take a look at a real example of credit rating. Of general obligation bonds (long-term) rated by Moody's, on a monetary basis 66.9 percent receives Aaa ratings and 15.6 percent receives Aa ratings. With regard to revenue bonds (long-term), on a monetary basis, 62.2 percent is rated Aaa, 13.9 percent is rated Aa, and there are almost none below Baa. Table III − 1 shows the 10-year cumulative probability of bankruptcy (the probability that a bond issuer with certain credit ratings will go bankrupt during the 10 years after bond issuance) by ratings. (Data measurement period is 1970-2000).

(4) Bond Insurers

The guarantee on municipal bonds is designed so that the entire amount of the municipal bond issued is guaranteed unconditionally to investors, even when the municipality becomes insolvent. Private bond insurers and certain banks provide this guarantee by charging the issuer of the bond, i.e. the local government, an insurance premium. According to the TBMA, of long-term municipal bonds issued in 1980

amounting to 46.3 billion dollars, 2.5 percent was insured. Meanwhile, in 1999, of new issues of long-term bonds amounting to 226.8 billion dollars, 46 percent were insured municipal bonds.

The guarantee on municipal bonds in the US is positioned strictly as a means of emphasizing the creditworthiness of municipal bonds that are already assigned a certain rank, rather than to take on the role of insuring the debt in the place of local governments.

Bonds are insured not only by mono line insurance companies, but by conventional banks as well. However, given its excelled specialty in insurance operations and the enormous reserves required for guarantees, it is common for municipal bonds to be insured by bond insurers. This is where there is a striking difference to Japan, which provides "implied government guarantee".

2. Measures Concerned with Financial Failure
(1) Chapter 9 of the Federal Bankruptcy Code

When municipalities and other subdivisions of states go into default, these can file bankruptcy petitions under Chapter 9 of the Federal Bankruptcy Code. The history of Chapter 9 goes back in time to 1934 when the adjustment of the municipal debt was enacted in the Federal Bankruptcy Code as Chapter 9, in response to the Depression of the 1930s. Since then, amendments have been made over time, one of them being the 1976 amendment to make it applicable to large municipalities, as a result of the financial crisis of New York City.

While the US Bankruptcy Code falls under exclusive jurisdiction of the federal government, in the US, municipalities are the creature of states and there is a tradition of non-intervention of the federal government in municipalities. Therefore, there are cases in which debt treatment under the Federal Bankruptcy Code coexists with debt adjustment according to state laws, or cases in which the state does not permit the bankruptcy petitions under the federal code. See Table III-2.

In Chapter 9 of the Federal Bankruptcy Code there is no provision for the liquidation of assets; rather it indicates means of reorganization (debt cancellation and payment rollover). That is to say, the Federal Bankruptcy Code is characterized by debt adjustment through reorganization.

Under Chapter 9, a trustee is not appointed even when creditor proceedings are initiated. The debtor local government possesses its property and the head of local government remains in charge of affairs and continues to provide his/her services. Accordingly, it can be said that the ultimate goal of Chapter 9 is to reach an agreement

with its creditors on the extension of debt maturity or for the reduction or cancellation of the principal or interest, while the bankrupt local government continues its duties.

When filing for a Chapter 9, there are a number of conditions required by law: the filing entity must be the municipality itself, state law must permit filing a Chapter 9, the municipality must be insolvent, the municipality must have the will to carry out the plan for debt adjustment, and creditors holding a majority of the claims must agree to formulate and implement a plan under Chapter 9.

For a municipality to file for debt adjustment under the Federal Bankruptcy Code, this must be permitted in the law of the state to which the municipality belongs. When the type of response to the Federal Bankruptcy Code is examined, states fall across a wide range; there are states that permit debt adjustment to those that prohibit it.

In the type with unconditional authorization, the state law allows a wide range of municipalities to file for Chapter 9 bankruptcy. For example, Missouri State Law states that the consent of the State and the required authorization is vested in municipalities, which are organized by state law or autonomous entities pertaining to such municipalities, to undertake the actions provided by the Federal Bankruptcy Code. In the type with preconditions for authorization, there are states that minimally require prior approval by the state before filing for bankruptcy, and others that additionally require a closer inspection of the finances of the municipality. For example, under Kentucky State Law, in principle, municipalities can file on its own, but they are required to obtain the prior approval of the plan by the governmental officer in charge of municipal bonds and the local officer in charge of accounting. In the type with state bankruptcy laws, the state law provides debt adjustment procedures similar to those provided in the Federal Bankruptcy Code under the supervision of state courts and agencies. In the case of New York State, the New York State Financial Emergency Act of the City of New York was enacted in 1975, allowing the extension of debt maturities. In the type prohibiting the filing of Chapter 9 bankruptcy, statutes establish this prohibition and also prescribe fiscal supervision and restriction so that municipalities will not fall into bankruptcy. Under Kansas State Law, public administration operations are conducted by cash only and the issuing of bonds is strictly restricted.

(2) The Situation of Default

In the United States, the issuing of municipal bonds began in the 1820s and municipalities that go into default have appeared since then. There have been 31 cases of municipalities filing for bankruptcy between 1960 and 1984. In recent years, Orange County, California has gone bankrupt in 1994. Such defaults are reflected in Table III-3.

The default of municipal bonds, based of the number of cases, amounts to a total of 1,333 cases between 1980 and 1994. As a share of the number of cases of long-term bond issue, this corresponds to a default rate of 1.02 percent and is on a rise in recent years. However, compared to corporate bonds of the private sector, the rate of default is low. Some reasons for the default of municipal bonds is that in the event that security is insufficient and municipalities fail to respond to sudden changes in economic activities, revenues fall drastically and as a result of tax hikes, arrears in tax payments occur and businesses fall through.

From the above, it is evident that under market-oriented municipal bond systems, so that the risk is shared among a diversity of economic actors, credit ratings and interest rates that reflect the risk, as well as bond insurance by private sector actors as a response towards risk, and rules and regulations for debt liquidation and bankruptcy are provided in the market environment.

3. Insights for Japan

The municipal bond system of the US, which has been examined so far, differs greatly from that of Japan. The biggest difference is that whereas the US ensures discipline for bond issues through market forces, in Japan, the amount of each local bond issue is established through controls by the central government.

The US is a country that has adopted a municipal bond system that takes advantage of market mechanisms, which is considered to be a key course of direction in examining the future local bond system of Japan. Many insights for the local bond system of Japan, as indicated below, can be obtained from the case of the US.

(1) The existence of discipline due to the non-existence of direct guarantees by the federal and state governments

Because the federal and state governments do not directly guarantee debts of municipalities in the US, there are differences in the interest rate between municipal bonds. The very existence of the gap in interest rates creates discipline, such as the close examination of projects and revenue source for repayment when issuing bonds, the effort to obtain high credit ratings or guarantees from bond insurers, and rigorous control over mid and long-term of the overall finance and debt of the bond issuer.

(2) Joint issuance while securing market discipline (mutual security, etc)

In order to obtain the benefits similar to those discussed in Japan, such as the reduction of the cost of issuing bonds, bonds are jointly issued in the US as well.

However, in the US, since issuers assume the obligation of repayment even when taking part in joint issuance, discipline from the market works strongly.

(3) A close investigation of the feasibility of repayment

In the US, from the preparatory stage of issuing municipal bonds, the feasibility of repayment of the bond to be issued is closely examined by a variety of specialists (officer in charge of finance of the issuer, underwriters, lawyers, other financial consultants and engineering consultants, bond insurers, credit rating agencies), and various structures are added as required.

In Japan, local bonds are generally issued through a closed circle of officers in charge of finance of the central and local government, and bank-related personnel. Moreover, as to the feasibility of repayment, this is affirmed unconditionally through the "implied government guarantee".

(4) The existence of bond issuance management through a mid-term capital plan

In the US, municipal bonds are issued basically for capital formation, and not for covering deficits. Furthermore, the issuing municipality sets the amount to be issued based on a mid-term capital plan.

As to the local bonds of Japan, albeit the existence of the "principle of local construction bonds," as a matter of practice, some local bonds are issued assuming that they will be appropriated to operating expenditure. Moreover, the local governments do not have the framework to voluntarily control the amount of local bond issues on a mid-term basis.

(5) Strict Disclosure Provisions

In the US, since disclosure constitutes the source of important decision-makings of investments, credit ratings and insurance, it can be denoted that the issuing of municipal bonds on favorable terms is impossible when disclosure is insufficient. Besides, the law establishes strict penalties for securities companies and such, if disclosure is insufficient.

In Japan, although awareness of IR is gradually rising, there is neither individual disclosure of a program-like document for each local bond that is issued, nor continuous disclosure.

(6) Attracting investors by insuring municipal bonds and the revitalization of the circulation market

The guarantee on municipal bonds is not insurance for a bond with low credibility, but is strictly a means of reinforcing the credibility of that bond. For bonds doubtful of its repayment, the bond insurer will work to improve its credibility by enhancing security or by re-establishing terms in the event that repayment goes into arrears. Therefore, bond insurance contributes to the reduction of the cost for issuing bonds and to the enhancement of the marketability of the bond, without unreasonably leaving high-risk bonds in the market.

In Japan, even local governments with unsound fiscal conditions can issue local bonds. Moreover, because a portion of the principal and interest is shouldered by the central government through the LAT grants system, even local governments lacking in repayment capacity of its own issue bonds.

(7) Indication of signals to the market by credit ratings

Through the existence of credit ratings, investment judgment of investors improves. It disciplines the issuing of municipal bonds as well, since for bond issuers, when ratings fall, the funding cost increases and this influences other bonds as well by undermining the creditworthiness of the issuer itself.

In Japan, it is said that the "implied government guarantee" of local bonds makes it impossible for local bonds to default.

(8) Highly transparent reorganization and debt adjustment of the issuer under the US Bankruptcy Code

Under Chapter 9 of the Bankruptcy Code, reorganization of the issuer is conducted through an explicit process, without an opaque bailout from government agencies. As to debt adjustment, this is equally ensured in a highly transparent process.

In Japan, in the event that local governments incur debts exceeding its repayment capacity, although such cases can be dealt with by undergoing reconstruction through the application of the Law on Special Measures to Promote Local Public Financial Reconstruction, this type of reconstruction merely provides special LAT grant measures for bond issues and temporary borrowings as a condition for the formulation of a financial reconstruction plan. Thus, no legal framework exists for restructuring debt.

(9) Rulemaking by persons actually in charge

In the US, because guidelines are drawn up by self-regulatory organizations of the industry composed of persons actually in charge, regulations that respond to actual circumstances are formulated. In addition, the opinion of the private sector is more

easily reflected since government regulations are subjected to public comment or because there is active lobbying.

In Japan, making of rules on local financial matters falls under the exclusive jurisdiction of the Ministry of Finance and the MIC. Therefore, the local government cannot become involved in the ordinary administrative process.

(10) Initiatives for human resource formation

Highly specialized personnel, such as lawyers, accountants, and those with postgraduate degrees in public administration are hired as officers in charge of financial affairs in local governments. In addition, a national certification scheme for qualifiers of municipal finance officers exists, and training and conventions for such officers are provided amply.

In Japanese local governments, employees are mainly new graduates hired through examinations and therefore, it is rare to employ financial specialists with the experience of having worked elsewhere. Furthermore, because officers in this post are subject to ordinary personnel rotation, they cannot foment their specialty over time.

(11) Investor education on municipal bonds

Measures are taken actively to enhance the investment judgment of investors over municipal bonds investment, for example, through substantial disclosure or investor education by the association of securities companies and so forth.

In Japan, it is rare for individual investors to hold local bonds, with the exception of mini publicly-offered bonds for individual investors. In addition, local bonds are not circulated in a scale to invite a wide range of investment.

IV. The Local Bond System of France
1. The Situation of Local Bond Issues
(1) The Situation of Public Debt in France

Of the outstanding government debt of France, outstanding debt of the central government as of the year 2002 amounts to 732.8 billion euros, while that of local governments amounts to 104.1 billion euros. The outstanding debt of the central government in relation to GDP was some 45 percent until 2001, but it has risen to 48.2 percent in 2002, as shown in Figure IV – 1. On the other hand, outstanding debt of local governments is on a slight decrease year by year and its debt-to-GDP ratio has also fallen from 8.2 percent to 6.8 percent.

The size of local government expenditure in France is about 45 percent of central

government expenditure, but outstanding debt remains at some 16 percent, which indicates that in local governments, debt is contained in comparison to the size of its expenditure. Besides the small size of the local government budget to begin with, it is believed that the small scale of outstanding local debt is largely due to the existence of the principle of a balanced budget and fiscal administration rules such as those that restrict borrowing to investment purposes.

(2) The Situation of Local Debt
(i) The Tendency of Local Debt

The local debt of France, observed in terms of debt of newly-issued bonds – revenues from local bonds minus repayment of principle – is on a consistent downward trend after 1992 and it has remained negative since 1997 (a situation where repayment exceeds borrowing). See Figure IV – 2.

Because the debt of newly-issued bonds is evolving with a tendency to decline, the outstanding debt also continues to fall year after year. Outstanding local debt, which amounted to 84.9 euros in 1997 was reduced to 77.0 euros in 2002. During this period, debt has been reduced by 7.9 billion euros.

As described later, although the reform of the local bond system and the liberalization of bond issuance advanced after the 1980s, it did not lead to a drastic rise in the reliance of subnational entities on local bonds. The amount of local bonds issued by subnational entities (the total of regions, departments and communes) as of 1997 stood at 73.1 billion francs and is confined to about 10 percent of the revenue. This level is the same at all levels, i.e. regions, departments and communes. In 1997, the repayment of the principal and interest on local bonds surpassed the debt of newly-issued bonds, and net borrowing became negative.

It can be assumed that the factors for this are the stability of the economy since the 1980s, the tendency of not permitting borrowing by subnational entities traditionally, and the financial insolvency of some subnational entities upon entering the 1990s, among others. Subnational entities are strengthening their tendency to orient funding on hikes in local tax rates rather than on local bond issues.

(ii) A Special Characteristic of Local Bond Issues by Subnational Entities

Subnational entities of France reach 35,000 in number and are diverse in size. Although the situation of debt also varies, looking at the situation of borrowings by the size of population, a certain characteristic can be pointed out.

In France, when comparing the situation of local debt between subnational entities,

outstanding debt per resident is commonly employed as an indicator. In France, Table IV – 1 is low in small-sized communes (cities, towns and villages), while middle-sized entities of about 50 thousand to 100 thousand residents have large debt. In turn, the outstanding debt decreases in large-sized entities (population of 100 thousand or more).

As reasons for the small debt in small-sized entities, that funding needs are smaller because the services provided are smaller in quality and quantity to begin with, can be mentioned along with the existence of various types of subsidy programs, among others. On the other hand, mid-sized entities are currently the urban group with the largest outstanding debt, due to the need to deliver certain administrative services regardless of the size of its population, and because investment in plant and equipment of comparatively large scale was made during the period of economic prosperity of the 1990s.

(3) Local Government Finance and Local Bonds

The budget system of French subnational entities is a dual budget, composed of the current account and the capital account. Local bonds can only be budgeted in the capital account and there is an obligation to budget repayment of principal in the capital expenditure and repayment of interests in the current expenditure.

(i) The Positioning of Local Bonds in the Revenue

As shown in Figure IV – 3, the ratio of current revenue to capital revenue of French subnational entities stands at about 8 to 2. Around 70 percent of the current revenue is funded by local taxes. Local bonds are budgeted in the capital revenue and its share is about 9 percent in relation to the total revenue and about half in relation to the total capital revenue.

(ii) The Positioning of Expenses Related to Local Bonds in the Expenditure

As shown in Figure IV – 4, on the other hand, the ratio of current expenditure to capital expenditure is about 6 to 4. The interest payment accompanying the repayment of local bonds must be budgeted in current expenditure, and stands at 3.3 percent of the entire expenditure. In addition, there is an obligation to budget the redemption cost of principal in the capital expenditure. Its weight in the entire revenue stands at 10.5 percent.

2. Overview of the Local Bond System in France
(1) The Issuing of Local Bonds

(i) The Objective of Issuing Local Bonds and the Accounting Sector

As examined in the previous section, in France, a dual budget system, which separates the current account and capital account is employed by subnational entities, as shown in Figure IV – 5. The issuing of local bonds is restricted to investment expenditure. Bonds can be issued only under the capital account and it is prohibited to include it as a source of expenditure in the current account.

Furthermore, the redemption of the principal of local bonds already issued is expenditure under the capital account, but it is covered by transferring funds from the current revenue to the capital account. The payment of interest on local bonds is expenditure under the current account and payment using funds obtained through newly-issued bonds is prohibited.

(ii) Entities Eligible to Issue Bonds

Under the current system, all subnational entities (regions, departments and communes) can raise funds within the range of the investment sectors described above. Wide-area urban communities also raise funds freely. Basically all subnational entities can raise funds in the form of bond issues as well.

However, there is a large regional gap between subnational entities in France. At the municipal level of communes, for small-sized subnational entities with a population under 1,000, raising funds by issuing bonds is not realistic as a matter of practice, and so, this limits bond issues to certain large-sized, economically affluent regions and departments, and the 10 major cities.

Under the actual situation, of the 36,000 subnational entities, those that obtain loans are limited to some 5,000.

(iii) Types of Local Borrowing

Borrowing by subnational entities for local financing is in the form of debenture financing, bond issues, borrowing in foreign currencies, among others.

(a) Debenture financing

This is the most common method employed. Even after the liberalization of local borrowing, this remains the method applied in the great majority of cases (95 percent or more) of local bonds.

(b) Bond issues

Public offering of bonds is permitted to all subnational entities in principle. However, since it is often difficult for small-sized entities to publicly offer bonds independently, this type of borrowing is limited to a few percent.

When small-sized entities issue bonds, steps such as joint issuance or pooling arrangements by specialized financial institutions have been taken.

(c) Borrowing between subnational entities

Borrowing between subnational entities is generally impossible under the existing system in which free funds must be deposited with the Treasury as a rule. However, as an exception, communes can make advance payments of national treasury deposits to hospitals or give loans to the low-rent rental housing corporations under certain conditions.

(iv) Types of Funds

Currently, the source of funding of subnational entities in France is mostly covered by private funds. See Table IV − 2.

(a) Private funds

The breakdown of private funds, which cover a large part of funding, is extremely diverse. While private banks are the main component, DCL (*Dexia Crédit Local*: Dexia Local Bank) – formerly a government financial institution –, CD (*Caisse d'Epargne*: Savings Institution) and Crédit Agricol – a cooperative of agriculture businesses – are said to be the three leading funding agencies. Although funds are also raised through public offerings, its share is low, around several percent. However, regions, where publicly-offered bonds accounted for over 15 percent in 1998, as well as wide-area urban communities are shifting to public offerings.

(b) Governmental funds

Presently, there are no borrowings categorized under governmental funds. Although existing debt from CDC (*Caisse de Depôts et Consignation*: State Financial Institution for Deposit and Consignment) remains, new borrowings are currently not made.

(v) Regulations and Degree of Freedom Concerning Local Bond Issues

As described above, in France, subnational entities can issue local bonds freely. Funds can be raised without restriction via negotiations with financial institutions, and the interest rate on borrowings, period of maturity, etc, can be set freely. Local bond issues are comprehensive and untied to specific projects. An appropriation rate by sector is not regulated either.

However, budgetary rules concerning borrowing as well as ex post facto monitoring rules, among others, are stipulated and these discipline the issuance of local bonds. These rules can be organized as follows.

     ① Local bonds can be issued only as the expenditure of the investment sector

(borrowing cannot be made for the expenditure of current accounts).

② Interest payment costs must be budgeted in the current expenditure (local bonds cannot be used for the cost of redemption of principal and interest).

③ Ex post facto monitoring is conducted by the prefect appointed by the national government and the Regional Audit Chamber. If rules ① and ② are not observed, the prefect will file a case with the Regional Audit Chamber[9] and the latter will present proposals and recommendations. Furthermore, the prefect may refer decision to the Regional Audit Chamber.

④ In principle, borrowing from other subnational entities is prohibited.

(vi) Bankruptcy Rules for Local Bonds

Due to the rules mentioned above, the risk of lending to subnational entities is very low and the risk of default is said to be 1 two-thousandth at DCL. It is extremely rare for subnational entities to default.

For subnational entities that encounter financial difficulties, although there are measures to rectify its deficit, a system of bankruptcy is not legally established.

In 1990, the City of Angouleme (a city located in southern France with a population of 90,000) defaulted. However, in this case, Angouleme had borrowed heavily from financial institutions (borrowings amounting to 140 billion francs from 63 institutions) and had presented falsified statements of accounts. Since the enactment of the Decentralization Act, the Ministry of Economy and Finance has indicated that the national government has no obligation to shoulder the debt of subnational entities. In this case as well, some financial institutions had to accept not only deferred payment of debt, but also losses from interest and principal. CLF (*Crédit Local de France*: Local Bank of France, currently DCL) had to abandon the interest on the loans it gave, but the principal was rolled over and is being paid.

3. The Reform of the Local Bond System in France[10]

The French local bond system has been reformed in two basic directions – generalization and the abolition the special provision of official low-interest rates – in line with the course of decentralization reform of the 1980s.

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[9] The Regional Audit Chamber is a state institution established by the Decentralization Act of 1982. It is subject to oversight by the State Audit Office and the magistrate is appointed from among the officers of the State Audit Office. The powers of the Regional Audit Chamber include auditing local authorities every four years, annual verification of accounts, and presenting opinions on the supervision of the local budget by the head of the local authority.

[10] The description below is based on interviews with the officers in charge of local public finance of DGCL and DCL , Aoki (1990 and 1996)

(1) The Situation of Controls before Reform

In the French local bond system prior to the decentralization reform in 1982, there were strict regulatory controls imposed by the central government (specifically, Treasury Bureau of the Ministry of Finance, the present Ministry of Economy, Finance, and Industry), thereby making it practically impossible to issue bonds, except through the central government and some government financial institutions. Under this situation, funding of subnational entities also relied heavily on governmental funds.

(i) Management of Local Debt by the Central Government (Coupling Subsidies and Local Debt)

In the local bond system prior to reform, local debt was managed by the central government entirely through government financial institutions.

When funds were not obtained via government financial institutions, permission of the central government was required and a limit was imposed on the amount of borrowing. In addition, since loans from government financial institutions were only approved for public works that received government subsidies, it can be said that local borrowing was placed almost entirely under the control of the central government.

Concretely, it was designed in the following manner: Priority measures were pointed out to subnational entities by the central government, and when the respective ministries decided on the granting of earmarked subsidies for construction and investment spending, low-interest loans could be automatically received for the investment project in question.

Through this system, even if the central government did not directly control local borrowing, local public investment could be sufficiently controlled by adjusting subsidies. This was used as a policy instrument in various ways.[11] On the other hand, under this system, the purpose of all loans was determined in advance. Accordingly, it can be stated that this left no room for subnational entities to make decisions of their own.

(ii) Low-interest Loans by Government Financial Institutions

Government financial institutions that underwrote the great majority of local borrowing is a group of 3 members: CDC (State Financial Institution for Deposit and

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[11] The coupling of local borrowings to subsidies formed part of inflation countermeasures, at the time of the Algerian War in 1956. It was an attempt to contain the scale of local public works by limiting low-rate loans to projects aided by the central government. This did not end as a temporary measure; as a permanent measure that remains since them, it turned into a de facto rule (Aoki, 1990).

Consignment), CAECL (Financial Institution for Capital Investment Assistance of Local Authorities of France), and the Savings Institution.

At the nucleus was CDC. CDC is a state financial institution founded in 1816, which has been offering public financial services funded by deposits collected by tax-free savings account in the nationwide branch network of Postal Savings and the Savings Institution, as well as by public funds (social security fund, family allowance fund, pension fund, mutual aid funds, etc). [12]

By managing such low-cost funds, the CDC was underwriting local bonds at low interest rates considerably below market rates. The interest rate on local bonds of the CDC was some 2-3 percent lower than market rates in the 1970s and in 1981 when the gap is largest, it was lower by 6 percent or more.

In addition, regarding the coupling of local borrowings to subsidies, it can be said that for the CDC, this had the role of reducing the cost of screening of applications for issuing bonds. As a result, CDC did not have to bear the socioeconomic responsibility of loans.

(2) Problems Concerning Central Government Controls over Local Debt

As described above, while the central government had almost complete control over local debt and local public works through state financial institutions, a number of problems began to surface, beginning with the violation of the autonomy of subnational entities. Furthermore, propelled by the change in the environment of the financial market as well, reform of the local bond system was pushed forward, beginning with the examination of the financing system of state financial institutions.

Under the former local bond system, the first thing can be mentioned as a problem particularly of the coupling of local borrowings to subsidies was the violation of local autonomy. Although this system cannot be described as a requiring direct permission for issuing bonds, the subnational entities considered it to have the same degree of centralized control.

Secondly, because the limit on issuing amount was defined as the difference between the spending that was determined by the government as an area to be subsidized and the subsidy by the central government, there were many cases in which actual project expense could not be covered and in each case, additional borrowing at a high interest rates had to be made. Since the loans itself were extended one by one for each project, the handling of these loans was burdensome.

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[12] The CDC is commissioned by the French Government since the 19th century to manage the Livret A, a tax-free savings account, collected through the Postal Office and regional savings institutions.

Thirdly, because there was no flexibility in the procedures to obtain loans, at times there were idle revenue sources that were borrowed but not employed, obstructing an efficient fiscal management. Another problem was the contradiction that funds obtained with interest had to be deposited in the National Treasury free of interest.

Fourthly, the fact that the effect expected at that time concerned with the control of public works through the coupling of local borrowing to subsidies, i.e. the effect of economic expansion of public works and the effect of providing high-quality public goods did not appear was also viewed with doubt. This was because in many cases, the right timing as an economic stimulation measure was lost due to complicated and time-consuming procedures, and due to the fact that public works determined by the central government did not match the actual situation of the local regions.

(3) Reform of the Local Bond System

In light of the abovementioned problems and background, it was decided that the local bond system would be reformed. A special characteristic of the reform of the local bond system in France is that the stream of decentralization combined with the reform of state financial institutions resulted in drastic liberalization.

Since the end of the 19th century, a system requiring permission by the prefect when communes issued bonds had been applied, but in 1970, this system was abolished, exception for the following three items: bond issues by communes that recorded deficits in the previous fiscal year, bond issues not financed by state financial institutions, and bond issues at high interest rates above the legal interest rate. However, previous to 1979, when earmarked subsidy grants for construction development spending were received from the government, low-interest loans for these investment projects could be obtained from the CDC (State Financial Institution for Deposit and Consignment), CAECL (Financial Institution for Capital Investment Assistance of Local Authorities of France), and the savings banks(CE). (In those times, the share of borrowings from state financial institutions accounted for 80 percent or more.)

Since then, in 1979, it was decided that CDC Group loans for subnational entities would be "generalized". Loans will be extended not on a project-by-project basis, but comprehensively once a year, for all projects that are to be implemented in the corresponding fiscal year. In addition, subnational entities (limited to communes with a population over 5,000) were to negotiate directly with financial institutions such as CDC on the total amount of loans for that year. In this negotiation, subnational entities would present the desired amount of annual loans required for the investment plan of the following fiscal year, and based on this, the CDC would determine the amount of

loan and the share for each funding agency, coordinating these loans with subsidies, to provide financing at low interest as in the past. Through the introduction of this comprehensive financing system, the restriction on bond issues to public works that were granted subsidies was abolished.

Subnational entities were now able to get a hold of the total amount of loans for the corresponding fiscal year in one comprehensive negotiation, thus making it possible to freely distribute funds to projects approved by the local general council. Furthermore, since idle resources were not held as often, financial operations were streamlined.

In 1982, accompanying the abolition of the prior screening rights of the prefect over subnational entities, the permission system for local bonds was abolished (However, permission was to be required for the two items of public offerings over 500 million francs, and the issuing of foreign bonds). In addition, the rule of generalization of subsidies for construction development was announced in the same year, and in the following year, in 1983, Overall Aid for Amenities (DGE) was established. In step with this abolition of the permission system, public bond expenses were made to be obligatory expenses. In addition, as to balancing the budget, equilibrium that had been required in the overall revenue and expenditure until this time, was now to be required in the current account and capital account, respectively. Nonetheless, since the system of low-interest financing by state financial institutions was maintained, the share of state financial institutions in the local bond market remained high, and through the screening process of these institutions, indirect control continued to exist.

Furthermore, in 1986, low-interest financing by CDC was abolished and the interest was now at the same rate as ordinary loans.

This reflected the movement of France's financial system reform. The development of a capital market, financial deregulation, and opening up of the sector are important challenges and through measures such as capital gain tax cuts, deposit savings in CDC declined and thereby it was decided that low-rate financing would be abolished. As stated before, the gap between low-interest loans available to subnational entities and market interest rates had grown as large as 6 percent, but this gap diminished rapidly after the 1980s. Then, in 1999, the permission system for the issuing of foreign bonds was abolished as well.

In this way, there was a shift from a system of loans offered to subnational entities exclusively by specific financial institutions to a free competition regime, where each subnational entity negotiates with private financial institutions entering into the market for the first time, as well as with the conventional state financial institutions, in pursuit of loans on more favorable terms to issue bonds as a choice of its own. When

low-rate financing of state financial institutions was abolished in 1986 and the monopoly of these institutions disappeared, private banks and insurance companies entered the local bond market.

It can be said that issuing terms of local bonds before reform was limited to the sole method of fixed interest rates paid in yearly installments in fixed amounts, and no other terms for local bonds existed. However, with the entrance of a diversity of financial institutions into the local bond market after reform, since the late 1980s issuing terms of local bonds became diverse.

4. Actors in the Local Bond System of France

Local bonds in France are mostly funded in the form of borrowings of subnational entities from financial institutions. The main actors are the subnational entities, which are borrowers, and financial institutions such as banks, which are lenders. As related actors, the state (Ministry of the Interior, etc), which has reduced its supervisory powers in recent years, and private rating agencies also play a certain role.

(1) The Role of the State (DGCL: General Directorate of Local Authorities of the Ministry of the Interior)[13]

(i) Liberalization of Local Bonds and the Reduction of State Supervisory Powers

Until 1982 when access to the capital market was liberalized, the state granted permission for local borrowing by strictly revising beforehand whether the loan and its content are appropriate. However, after 1982, its supervisory powers are being reduced drastically, leaving it at giving ex post facto approval on its legality, for example. See Figure IV – 6.

Prior to 1982, borrowings were permitted only for investments that the state had decided to provide grants for. After 1982, subnational entities and financial institutions form contractual relationships freely and the state does not provide checks on neither size of the investment or content. Regarding bonds as well, in the past it was necessary to obtain authorization from the Ministry of Finance, Economy, and Industry as well as of the Ministry of the Interior, but this authorization was abolished before 2000.

Although the system of obtaining prior permission from the state was abolished, the securing of fiscal soundness of subnational entities is pursued through rules, such as verification of the subnational entity's budget by the Regional Audit Chamber, obligation of approval by the local council on borrowings, obligation to redeem loans through its own revenue source, prohibition of lending between subnational entities,

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[13] The contents of this section are based on interview with DGCL.

and strengthening budget transparency (traceability of loans).

Securing fiscal soundness began to be sought particularly from the bankruptcy of Angouleme City after the liberalization of access to the capital market. Since then, the Regional Audit Chamber was established and post-monitoring has been reinforced.

(ii) Internal Management by the Ministry of the Interior and the Ministry of Economy, Finance and Industry

Since late 1990s, the Ministry of Interior and the Ministry of Economy, Finance and Industry have established financial indicators to grasp the fiscal situation of subnational entities, employing these as material to judge fiscal soundness. Until 2000, the two Ministries had indicators of their own, but these indicators have been unified in 2001. It must be mentioned that the so-called "joint scoring system" is an internal system of the government for use by the prefect and the chief accountant of the department (external post for officers of the Ministry of Economy, Finance and Industry), and is not made public to third parties.

The four indicators used are ① debt burden rate (weight of outstanding debt in relation to revenue), ② self-financing coefficient (ratio of current expenditure + public bond expenses in relation to revenue), ③ expenditure rigidity (weight of personnel expenses, burden costs and cost of interest repayment in relation to revenue), and ④ taxation capacity (room to raise tax rates in relation to average national tax rate).

By multiplying the coefficients below to these indicators, an overall score is calculated for each subnational entity.

Overall score of each subnational entity = ① × 4 + ② × 4 + ③ × 2 + ④ × 1

When the overall score is less than 20 points or when it does not reach 30 in two consecutive years, the prefect or the chief accountant of the department coordinates with the subnational entity in question to take measures to achieve fiscal health. This scoring system is considered to function as a follow-up service or as a consultant, rather than as state controls over subnational entities.

The scoring system targets regions, departments and communes, but with the rise in the role of wide-area urban communities in recent years, discussion is under way to include these as well.

(iii) Concerning the Special Subsidy Program

It is understood that after capital markets were liberalized through decentralization reform, as a matter of principle, the state does not intervene in local public finance. However, through the Special Subsidy Program, the state partially deals with financial

crisis of subnational entities at times.

The Special Subsidy Program was actually applied to 12 cases in the year 2003, amounting to a total of 2.6 million euros. This comes out to about 200 thousand euros for each subnational entity. It is small both in scale and in the number of cases applied. Rather than being a bailout for subnational entities in financial crisis, it is merely a temporary measure through which the state also bears the burden of an extremely small portion of the debt. In essence, it is strongly required that debt cancellation by financial institutions or a cut in spending by the subnational entity accompany this program.

To be granted the special subsidy, the prefect conducts the first screening, and after a second screening by the Ministry of the Interior, an additional budget is requested with the Ministry of Finance, Economy and Industry.

Although this program offers assistance to subnational entities encountering financial difficulties, entities that do not make an effort at (a) increasing tax revenue, (b) making investments flexible, and (c) reduction of structural spending are not eligible.

(2) The Actual Situation of Local Bond Management by Issuers (Subnational Entities): The case of the City of Paris
(i) Organization of the City of Paris

The City of Paris, the capital of France with a special status, is located in northern France in the midstream of the Seine River. It has a population of approximately 2.135 million inhabitants and covers an area of 105 km^2. The City has 45,000 employees, of which 220 are staff in charge of the fiscal affairs.

Of the 220 people, 100 are in charge of accounting and are dedicated to work related to payments in coordination with the French Treasury. 120 people are responsible for budget planning and capital commitment plans. Of this staff, there are 10 people posted in the Office of Fiscal Management, managing debt.

Most of the staff in the fiscal affairs section majored in fiscal finance, but on top of that, they are required to have professional experience in this area. Ample financial knowledge is required especially in the staff working in the Office of Fiscal Management.

(ii) Fiscal Situation

The public finance of the City of Paris is in excellent condition structurally, with stable tax revenues. The current account sector is in surplus each year. The

accumulated amount from the current account surplus is used to finance investment and in recent years, new borrowing has decreased in size. As shown in Table IV – 3, new borrowing in fiscal 2003 amounts to about 115.0 euros, accounting for 30 percent of capital revenue. In addition, the size of new net debt (amount of new borrowing – amount repaid) is 68.0 million euros negative (repayment is greater), as shown in Figure IV – 7.

In the past 10 years, there have been no issues of publicly-offered bonds by the City of Paris either. The factors for this are that terms are better for bank loans, and that the size of borrowing was not so large. However, because the demand for capital investment will increase in the future, publicly-offered bonds are scheduled to be issued in the future.

Total debt incurred by the City of Paris is small and outstanding debt is limited to 1.1 billion euros as of the year 2003. When compared with the average outstanding debt of other cities of the similar size (about 2.7 billion euros), it becomes clear that the relative size of debt is small.

(iii) Rating

Although the City of Paris has not issued publicly-offered bonds in the past 10 years or so, ever since it was assigned ratings when such bonds were issued, it has continued to obtain ratings from private rating agencies (Standard and Poor's). It was rated AAA by Standard and Poor's in fiscal 2004.

This rating influences the cost of borrowing when obtaining loans from banks and other financial institutions. It is assumed that the difference between single A and Triple A ratings could result in a difference in interest rate between +20bp and +2bp (However, this effect is not so large today because low interest rates prevail). Furthermore, a motive that can be mentioned for obtaining ratings is that it is used as a political instrument (It is used by politicians during elections as a tool to make an appeal to citizens).

Sessions lasting three months are held when obtaining ratings. In addition to the confirmation of fiscal situations in general, the interview with the top officer (deputy officer in charge of financial affairs in 2004) and off-the-balance-sheet risks are particularly important.

(3) The Trend of Financial Institutions: The case of DCL (Dexia Group)[14]

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[14] The description below is based on interviews with DCL. Oyama (2002) and Japan Local Government Bond Association (1999) were referred to for material.

(i) From the Establishment of CLF to the Birth of Dexia Group

The CLF (*Crédit Local de France*) – predecessor of DCL – is a financing agency for subnational entities that was established to succeed CAECL (Financial Institution for Capital Investment Assistance of Local Authorities of France), the nation's largest funding agency for the development plan of subnational entities. See Figure IV – 8. It was founded in 1984 as a specialized financial institution of the state, based on the Banking Law (New Banking Law) to become a sub-agency of the CDC (State Financial Institution for Deposit and Consignment), a government financial institution of France. It was privatized after that, in 1987.

In 1997, CLF tied up with Belgium's financing institution for subnational entities, CCB (*Credit Communal de Belfique*) and established the Dexia Group by founding CLF-Dexia and CCB-Dexia, two holding companies. Then, in 1999, the Dexia Group was integrated into a single holding company, Dexia.

Dexia Group has reinforced its business development abroad, one example being the acquisition of Financial Security Assurance in the US in 2000. Today, Dexia Group is the world's largest international financial group in the financial business sector targeting local governments, with 25,000 affiliated financial institutions worldwide.

(ii) An Overview of the Financing Business of DCL

(a) The Scale of its Lending to Subnational Entities

As of 1998, DCL held approximately 40 percent of outstanding borrowing of all subnational entities of France and it has about 10,000 deals pending each year.

Loan sizes vary, from as small as 100 thousand francs to as large as 1 billion francs. As to the lending method, its product with 15-years maturity, repaid in fixed monthly installments, known as "standard" is the most popular, but it offers a variety of products in line with the need of subnational entities.

The interest can be fixed or variable rates, depending on the choice of the subnational entity, but variable-rate loans account for 75 percent.

(b) Funding

Since the DCL cannot collect deposits from the general public, funds are raised by issuing bonds (DCL) in capital markets at home and abroad. The amount of issues reached 60 billion francs in 1997 and 90 percent of those were foreign currency bonds. This demonstrates the importance it attaches to raising funds in international markets.

(c) Internal Financing Criteria of DCL

Of the 36,000 subnational entities in France, only 15 obtain ratings. For loans from DCL to subnational entities, the following four criteria are established for screening: ①

borrowing per resident, ② self-financing capacity (fiscal capacity), ③ political stability, and ④ the perception of its residents toward local tax rates.

(d) The Screening Regime of DCL

Business contacts for loans with subnational entities reaches some 10,000 cases each year, and approximately 700 people in charge of screening conduct this process.

(4) The Trend of Private Rating Agencies: the case of Standard and Poor's (S&P)[15]

(i) Rating Subnational Entities in France

S&P applies a common analytic method for rating the subnational entities of each country; Macroeconomic and regional economic analysis, analysis on the regulations of each local public finance, and financial analysis of each subnational entity are the foundation. Particularly, in the analysis of regulations, the analysis of the institutional relationship between central-subnational entities and their actual relationship weighs heavily.

(ii) The Method of Rating

Because publicly-offered bonds are only a few percent of the borrowing of subnational entities in France, and does not constitute a common method for raising funds, there is little incentive to obtain ratings. Indeed, the only subnational entity that issued publicly-offered bonds in fiscal 2003 was the Government of the Region of Ile-de-France. It is generally believed that publicly-offered bonds are underdeveloped in France and S&P considers that this is due to the following factors:

(a) The term of bank loans are extremely favorable and ample in product flexibility

(b) The scale of the budget and size of bond issues of subnational entities are small.

(c) There is a strong awareness of officers in charge to avoid disclosure (required for ratings)

However, ratings are not necessarily given for the sole purpose of issuing publicly-offered bonds. It has great significance as a political tool. Furthermore, in some cases ratings become an advantage when borrowing from banks. It is rare for entities that have obtained ratings once to request abandoning it. Presently, S&P assigns ratings to approximately 20 government-related sectors of France. See Table IV – 4.

5. Insights for Japan

Regarding the local bond system of France, central government controls were extremely strong until 1982 and government funds accounted for most of the

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[15] The following was composed based on interviews with Standard & Poor's (Paris Office).

borrowings. This has undergone great changes in the context of decentralization reform, liberalization of bond issues accompanying this, and the liberalization of the financial market.

It is considered that this situation in France, a country with extremely strong tones of centralization even in Europe, and where the reform of the local bond system is making progress and borrowing from banks is becoming more diversified will be helpful in examining the local bond system of Japan.

(1) Autonomy of Fiscal Management of Subnational Entities

Although in France, subnational entities were integrated under strong central powers since before, substantial autonomy is beginning to be secured due to the decentralization reform since 1983 and furthermore, the Constitutional amendment and the enactment of the Law on Decentralization Reform in 2003. Through the principle of freedom to issue local bonds and the securing of the right to determine tax rates, subnational entities are charged with a number of responsibilities for fiscal management and are seen taking prudential behavior for debt control as well.

(2) Establishment of Budgetary Rules

Concerning the issuing of local bonds, although it can be described as not having restrictions such as limits and being left to the autonomy of the subnational entities, the restriction of borrowing to investment purposes and the budgeting of interest payment costs in current expenditures as obligatory expenses are established as budgetary rules.

It is believed that these function as a set of rules to maintain fiscal discipline.

(3) Grasping the Financial Situation Through Dual Budget Accounting

In France, it is common to grasp the financial situation through the dual budget accounting of the current account and the capital account, and the balance sheet. Accounting rules for subnational entities (M14) are also defined, making it easy to accurately grasp the situation of debt and so forth.

(4) The Provision of a Competitive Environment and Free Dealings with Private Financial Institutions

Along with decentralization reform, movements such as the privatization of state financial institutions were a strong driving force for the reform of the local bond system. Today, there is hardly any funding through government funds. The majority of funds are obtained through borrowings from private banks.

In addition, since a system similar to the Japanese system of authorized financial institutions does not exist, subnational entities and financial institutions deal with each other freely making it possible to obtain borrowing on more favorable terms.

(5) The Existence of Diversified Financial Products

Alongside the entrance into the market of private financial institutions, the diversification of financial products concerning loans for subnational entities is advancing as well. An environment for subnational entities to obtain the desired product at the lowest cost possible is provided.

(6) Situation of Screenings by Financial Institutions

Even in France, although loans to subnational entities are considered to be products with comparatively small risk, financial institutions conduct a strict screening of the subnational entity. Indicators such as debt per resident, self-funding capacity, political stability, and tax rate, are used to examine the risk of loans.

(7) Incentives for Fiscal Soundness Through Ratings

Although publicly-offered bonds are not common in France, and it can be said that the motive to obtain ratings is generally low, even under such circumstances, more than 20 entities, mostly departments and large cities, obtain ratings. It is recognized that the political impact of ratings is high, and it is believed that it will result in fiscal soundness.

(8) Monitoring System Based on Indicators Contributing to Debt Control

Central government controls were weakened after the liberalization of bond issues, but on the other hand, default on the obligations of subnational entities has occurred. From this experience, a monitoring system for local public finance has been introduced by the Ministry of Finance, Economy and Industry and the Ministry of the Interior since the late 1990s.The indicators used in this system are those that adequately measure the situation of debt control, such as debt burden ratio (weight of outstanding debt in relation to revenue) and self-financing coefficient (weight of current expenditure and public bond expenses in relation to revenue).

Due to the situation described above, it is regarded that local bond reform accompanying decentralization reform in France strengthened the tendency of subnational entities to manage public finance prudentially and to contain debt to the

greatest extent possible. Another contributing factor is considered to be the entrance into the market of private financial institutions alongside the liberalization of bond issues, which favored the adequate functioning of market mechanisms. The existence of leading financial institutions highly specialized in local financing, such as the DCL, was also important.

Yet, the fact that a situation which can be described as the oligopoly by private financial institutions prevails, and that national government guarantee towards subnational entities remains ambiguous in part, can be pointed out as some vulnerabilities of the system.

V. Comparative Institutional Analysis of Local Bonds
1. Basic Model

In this section, a comparative institutional analysis is attempted by adequately portraying the respective systems of Japan and the US, applying a theoretic model. As the procedure for analysis, the kind of change that will be brought about on the behavior of economic actors, and in particular, the kind of influence that will be caused on economic welfare when different systems are introduced under the same economic environment will be qualitatively analyzed.

Naturally, there are countries that have local bond systems with different characteristics than the systems of Japan and US, such as France. However, in this article, to limit the target of analysis, only the systems of Japan and US will be examined theoretically.

First, suppose that J numbers of local governments exist in a small open economy. The local government can carry out policy that will have influence only in that region, over two terms. In the first term, the local government carries out public investment that may raise the regional income during the second term, and in the second term, it imposes local taxes for the repayment of principal and interest on local bonds. For the purpose of simplification, suppose that these local taxes will be collected as lump-sum tax that do not distort the distribution of resources and that public investment will be made in all regions in G units in an indivisible form. Here, in order to focus on the discussion of local bonds, the revenue source of public investment will be covered entirely by local bonds. In addition, it will be assumed that if public investment is not made in the first term, income of the second term will be zero. For this reason, imagine a situation in which it would be reasonable to carry out public works in all regions. Here, without undermining generality, it will be assumed that household income per capita is Y in each region in the first term and is equal in all regions.

Suppose that the following two types of local governments exist. In Type A local government, public investment will result 100 percent in household income per capita of Y_{A2} for that region in the second term. In Type B local government, public investment will result in household income per capita of Y_{B2} for that region in the second term with a probability of q (×100%), but result in zero income in the second term with a probability of $1 - q$ (×100%).[16]   It will be assumed that the size of Y_{A2} and Y_{B2} is large enough not to obstruct the repayment of principal and interest on the local bond issued in the first term. Put the other way around, this means that in Type B, the local government will default with a probability of $1 - q$ (since household income will fall to zero and be untaxable).

Suppose that ηJ numbers of Type A local government exists and $(1 - \eta)J$ numbers of Type B local government exists. Also, suppose that the local government behaves as a price taker. η represents the share of Type A local government. It is assumed that this share η is known to all economic actors, but whether the local government in question is Type A or Type B is known only to that local government and unknown to households, local bond investors and the central government beforehand. This is the origin of the asymmetry of information in this model. In addition, assume that in all local governments, n number of households are residing.[17]

Local bond investors (whether they be domestic households or foreign investors) purchase local bonds keeping in mind that there are local governments that go into default. Supposing that the global interest rate of risk-free assets are constant at i, investors choose whether to manage their funds with risk-free assets that have an interest rate of i, or to invest in local bonds that carry the risk of defaulting. Supposing that all investors are neutral in risk and the markets of both risk-free assets and local bonds are completely competitive, there is arbitration between the rate of return of risk-free assets and local bonds. For local bonds of either type, the expected rate of return, which incorporates the probability of default, becomes equal to the rate of return of risk-free assets.

If local bonds (of Type B) default, investors must monitor whether the obligations truly cannot be fulfilled. The monitoring cost for this is set to be μG for G units of local bonds.[18]   It is assumed that when this monitoring is carried out, the probability of the fulfillment of obligations can accurately be determined with certainty. Therefore, in

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[16] The difference in type can be interpreted as a difference in the structure of the regional economy or a difference in ability and preference of the politicians or bureaucrats in charge of policy of that local government.

[17] This assumption was established to ensure that the type of local government would not be detected from the size of population.

[18] It is assumed that μ is small enough so that the incentive for investors to monitor functions.

reality, monitoring will be conducted only when household incomes of Type B local governments fall to zero, and default of debt obligations will definitely occur. In other cases, obligations will definitely be met.

Households residing in each region will not move from one region to another and will continue to reside in the same region over the period of two terms. Furthermore, tax burdens will be shouldered as required and private goods can be consumed only in the second term with the remaining disposable income. Disposable income from the first period will be saved for consumption in the second term. In doing so, the rate of return on these savings will be equal to the rate of return of risk-free assets, due to arbitrage conditions no matter how they are managed. The utility of this household is expressed as expected consumption of private goods. In other words, it is assumed that households are neutral to risk and $U(x_j) = E[x_j]$. Since under this setting, Type A households do not face uncertainty, consumption of private goods of a household residing in the Type A region x_A can be expressed as

$$x_A = (1+i)(Y - \tau_{A1}) + Y_{A2} - \tau_{A2}. \qquad (1)$$

$\tau_{At}(t=1, 2)$ is the amount of lump-sum tax per capita taxed by Type A local government during the term of t . Now, since there is uncertainty in the income during the second term in Type B region, the expected consumption of private goods of a household residing in Type B region $E[x_B]$ can be expressed as

$$E[x_B] = (1+i)(Y - \tau_{B1}) + q(Y_{B2} - \tau_{B2}). \qquad (2)$$

$\tau_{Bt}(t=1, 2)$ is the amount of lump-sum tax per capita imposed by Type B local government during the term of t . Furthermore, each local government will act to maximize the household utility of its region.

2. The Local Bond System of the US

Now, based on the above, to begin with, the US local bond system will be formulated to qualitatively analyze its economic effect. Special characteristics of the US local bond system can be summarized as follows: (a) non-involvement of the federal government in the debt obligations of the local governments, (b) the existence of the possibility of default of local governments as a result of this, (c) rating agencies effectively play a role by reflecting the disparity in credibility existing between local governments, and (d) differing ratings are assigned to local governments reflecting their credibility. These points will be described in a theoretic model.

First, suppose that rating agencies exist in sufficient numbers and that these judge whether the local government in question is Type A or B before local bonds are issued in the first term, receiving an examination fee Γ from the local government. Here, it will be

assumed that the rating agency can accurately determine the type of the local government that it has examined, and that this is known to all economic actors.

Type A local government has an incentive to be examined by this rating agency. This is because once it receives a rating as Type A, it can borrow from the local bond market at low interest rates, as a borrower that will not default. On the other hand, Type B local government does not have an incentive to be examined. If Type B local government is examined and are rated only as being Type B, it will be made known to the public that it is a borrower that will default, thereby enabling it to borrow from the market only at higher interest rates. However, even if it decides not to be examined, since Type A local government will willingly undergo examination, if all Type A local governments are examined, at this stage it will becomes clear that it is a Type B local government because it did not undergo examination. Either way, a true Type B local government will act by choosing not to be examined – so that the examination fee does not have to be paid – because it will be recognized by the market as a Type B local government.

What is important here is whether the choice of Type A local government to be examined by the rating agency is compatible with the utility maximization of its residents. If the examination fee is sufficiently high, the possibility of choosing not to be examined exists, even if this means accepting to pay the same interest rate as Type B local government. Accordingly, let's consider whether separating equilibrium, as referred to in literature of information economics, is valid.

The interest rate on local bonds of Type A and Type B local governments when separating equilibrium is valid will be expressed as r_A^{SU} and r_B^{SU}, respectively. Here, regarding Type A local bonds, because there is no uncertainty and debt obligations will definitely be fulfilled, its interest rate will be equal to the rate of returns on risk-free assets. On the other hand, as to Type B local bonds, debt obligations will be met with a probability of q, but will not be met at all with a probability of $1 - q$, and on top of that, monitoring costs must be paid. Therefore, as an arbitrage condition of the market,

$$1+i = 1+r_A^{SU} = q(1+r_B^{SU}) - (1 - q)\mu \qquad (3)$$

is valid. From equation (3), it can be said that $i = r_A^{SU} < r_B^{SU}$.

Next, let's examine the behavior of each local government. First, Type A local government pays an examination fee to a rating agency in the first term and upon being assigned a Type A rating, issues local bonds to implement G units of public works. The examination fee is covered by local taxes in the first term. Therefore,

$$\tau_{A1}n = \Gamma.$$

In the second term, local taxes are collected to repay the principal and interest on local bonds. Therefore,

$\tau_{A2}n = (1+r_A{}^{SU})G$.

From the above, at this time, according to equations (1) and (3), the utility (= consumption of private goods) of Type A community residents can be expressed as the following.

$$x_A{}^{SU} = (1+i)(Y - \frac{\Gamma}{n}) + Y_{A2} - \frac{(1+i)G}{n} \ . \tag{4}$$

Type B local government issues local bonds without being examined by a rating agency in the first term to implement G units of public works. Accordingly, it does not collect local taxes for the first term ($\tau_{B1} = 0$). In the second term, once income Y_{B2} is obtained, local taxes are collected to repay the principal and interest on local bonds. Therefore,

$q\{\tau_{B2}n - (1+r_B{}^{SU})G\} = 0$.

From the above, at this time, according to equations (2) and (3), the expected utility of Type B community residents can be expressed as the following:

$$E[x_B{}^{SU}] = (1+i)Y + qY_{B2} - \frac{\{1+i+(1-q)\mu\}G}{n} \ . \tag{5}$$

Now, let's examine whether separating equilibrium exists. In order for separating equilibrium to exist, the utility of the residents of that region must be higher when Type A local government chooses to be examined by a rating agency than when it chooses not to. Therefore, let's consider the case when Type A local government issues local bonds at the same interest rate as Type B local bonds without being examined by a rating agency. In this case, the utility of Type A community residents is:

$$x_A{}^{SU'} = (1+i)Y + Y_{A2} - \frac{(1+r_B^{SU})G}{n} \ . \tag{4'}$$

Therefore, from equations (4) and (4'), $x_A{}^{SU} > x_A{}^{SU'}$ holds true when

$(r_B{}^{SU} - r_A{}^{SU})G > (1+i)\Gamma$

is valid. That is to say, from equation (3), when

$$\Gamma < \frac{(1-q)(1+i+\mu)}{q(1+i)}G \tag{6}$$

is valid. This equation (6) is the condition for separating equilibrium to exist. Here,

$$\Gamma^{SU} \equiv \frac{(1-q)(1+i+\mu)}{q(1+i)}G$$

is defined.[19]

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[19] In this equilibrium, under the assumption that the rating agency can accurately assign a rating, the rating that it is Type A is the only signal. Tax increase in the first term is not a signal. Indeed, taxes will be raised to pay the examination fee to the rating agency, but even if it raises taxes and chooses not to pay the examination fee, it has not obtained the rating that it is Type A. On the other hand, for

On the other hand, let's examine the situation of pooling equilibrium. Under this situation, Type A local government also chooses not to be examined by a rating agency; therefore, both local governments issue local bonds at the same interest rate of r^{PU}. However, since investors cannot distinguish which local government is Type A, there is no other way but to calculate the expected rate of return from the share η of Type A local governments within the total economy. Here, due to the arbitrage conditions of the market,

$$1+i = (1+r^{PU})\{\eta+(1-\eta)q\} - (1-q)(1-\eta)\mu \quad . \tag{3'}$$

In this case, the utility of Type A community residents is

$$x_A{}^{PU} = (1+i)Y+Y_{A2} - \frac{\{1+i+(1-\eta)(1-q)\mu\}G}{\{\eta+(1-\eta)q\}n} \quad . \tag{7}$$

On the other hand, the expected utility of Type B community residents is

$$E[x_B{}^{PU}] = (1+i)Y+qY_{B2} - \frac{q\{1+i+(1-\eta)(1-q)\mu\}G}{\{\eta+(1-\eta)q\}n} \quad . \tag{8}$$

The condition for pooling equilibrium to exist is for the utility under pooling equilibrium to be higher than the utility under separating equilibrium, when the utility of type A local government (= community residents) is examined. In other words, $x_A{}^{SU} \leq x_A{}^{PU}$. The condition with the same value is, from equations (4) and (7),

$$\Gamma \geq \frac{(1+i+\mu)(1-\eta)(1-q)}{(1+i)\{\eta+(1-\eta)q\}}G \quad . \tag{9}$$

This equation (9) is the condition for pooling equilibrium to exist. Here,

$$\Gamma^{PU} \equiv \frac{(1+i+\mu)(1-\eta)(1-q)}{(1+i)\{\eta+(1-\eta)q\}}G$$

is defined.

Now, let's take a look at the relationship between separating equilibrium and pooling equilibrium. From equations (6) and (9), it can be shown that $\Gamma^{PU} < \Gamma^{SU}$ holds true. Accordingly, depending on the examination fee Γ, the following may occur.

(i) case where only separating equilibrium exists ($\Gamma < \Gamma^{PU}$)

(ii) case where separating equilibrium and pooling equilibrium may exist together ($\Gamma^{PU} \leq \Gamma < \Gamma^{SU}$)

(iii) case where only pooling equilibrium exists ($\Gamma \geq \Gamma^{SU}$)

In other words, under the situation described in this model, it can be said that there is no level of examination fee where equilibrium does not exist. Furthermore, under the

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the investor, if it (mistakenly) lends to (Type B) local government at a low interest rate, taking the tax increase in the first term as a signal, it will be a loss, due to the risk of default. Therefore, in the market, local bonds cannot be issued at a low interest rate just because taxes were raised in the first term.

situation of (ii), since $\Gamma^{PU} \leq \Gamma$ holds true, $x_A^{SU} \leq x_A^{PU}$. That is, in this situation, pooling equilibrium is achieved because the utility of Type A local government is higher when it is not examined by a rating agency. The reason for this is that in this economy, the examination fee paid to the rating agency, which arises only under separating equilibrium, is something that consumes economic resources and does not form part of household income.

Here, a comparative institutional analysis of local bonds in Japan and the US is being attempted. In view of this objective, of the three situations mentioned above, when considered in consistency with Chapter III, it would appear that the situation (i) is observed in the local bond system of the US. Accordingly, in the analysis in Section 4 of this Chapter below, analysis will be limited to the situation where $\Gamma < \Gamma^{PU}$ is valid.

3. The Local Bond System of Japan

Next, let's formulate the local bond system of Japan and qualitatively analyze its economic effect. Special characteristics of the Japanese local bond system are that local governments do not default and there is an "implied government guarantee" through local allocation tax (LAT) grants. The revenue source of the LAT grant is national taxes and it is distributed as a LAT grant measure for the redemption of principal and interest on local bonds. Such matters prevent rating agencies from playing an effective role and differences in the interest rate on local bonds among local governments do not appear. Let's describe these points in a theoretic model.

First, let's formulate the System of Local Allocation Tax Grants. Here, we introduce an income tax that will be levied on income at the rate of λ as national tax, and this will be appropriated as a revenue source of LAT Grants.[20] It is then assumed that only in the second term, LAT grants are allocated to all local governments in $Z_{j2}(j = A, B)$ amounts. The allocation of LAT grants to each local government will be in accordance with the difference in Standard Financial Need and Standard Financial Revenue. Therefore, it can be expressed as

$$Z_{j2}^H = p(1+r_j^J)G - \theta\tau_{j2}n \qquad (j = A, B) \qquad (10)$$

P is the rate that the LAT grant measure will be adopted for the redemption of principal and interest of local bonds ($0<p<1$); $1 - \theta$ is the ratio of reserved revenues to estimated local tax revenues ($0<\theta<1$) . Here, in consistency with the actual System of LAT Grants, $p>\theta$ is established.[21] However, Type B has a probability of $1 - q$ that its income will be

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[20] In this model, because income is given exogenously in the model, it has the same effect as the lump-sum tax and a distortion in resource distribution accompanying taxation will not occur.
[21] If this condition is not met, from equations (12) and (12') described later, an unrealistic situation will occur in the model, such as a negative national tax.

zero, and in that case debt obligations cannot be fulfilled. At this time, if p<1, theoretically, local bonds cannot be paid off even through LAT grants. Accordingly, when income be zero in Type B local government, transcending equation (10), the central government will allot LAT grants just sufficient to fulfill the debt obligation.[22] In this case only, it will be expressed in the following manner:

$$Z_{B2}^D = (1+r_B^J)G \qquad \text{(when } Y_{B2} = 0\text{).} \qquad (10')$$

In addition, it is assumed that the central government can monitor without cost to find out whether Type B local government is not lying about the fact that it cannot fulfill its debt obligations, and furthermore, the central government can accurately get a hold of the situation.[23]

In this case, the equation representing budget constraints of the central government in relation to LAT grants is the following. First, in the case where both types of local governments can fulfill their debt obligations, it can be expressed as

$$\eta J Z_{A2}^H + (1-\eta) J Z_{B2}^H = \lambda^H J n (Y_{A2} + Y_{B2}) \qquad (11)$$

On the other hand, when Type B cannot fulfill its obligations on its own, it can be expressed as

$$\eta J Z_{A2}^D + (1-\eta) J Z_{B2}^D = \lambda^D J n Y_{A2} \qquad (11')$$

Due to this, uncertainty will be brought about on Type A local government as well. This is because community residents of Type A local government will not be able to tell beforehand whether Type B can fulfill its debt obligations on its own, and according to how this results, the burden of national taxes will vary.

For investors, even if the income of Type B falls to zero, uncertainty does not occur because revenue sources sufficient to fulfill the obligation will be secured through LAT grants. Therefore, loans can be made at the same interest rate as risk-free assets not only for Type A , but for Type B as well. Accordingly, the interest rate on local bonds in this case will be the same as the interest rate of risk-free assets i for both governments. From the above, it would mean that even theoretically, separating equilibrium will not exist under this system. In addition, there will be no room left for rating agencies to exist in an incentive compatible way.

Hence, each local government will determine the local tax in the second term τ_{j2},

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[22] Although the LAT grant is not actually operated in this way, this can be interpreted as describing the way the central government ensures liquidity against local governments, for example by measures under the Local Public Financial Reconstruction Plan.

[23] If the central government were capable of finding out the type of the local government in advance, it would be possible to have Type B residents bear a higher cost, by taking prior measures in taxation, for example. However, as described before, this sort of mechanism does not exist in the present Japanese system. Therefore, regardless of whether the central government can identify the type of local government in advance, it would be consistent with the existing system to assume that LAT grants will be allocated as in equations (10) and (10'), in response to phenomena that has occurred.

taking the abovementioned allocation rule for LAT grants set by the central government as a given condition. In this case, since there is no incentive to obtain ratings, neither local government will charge taxes in the first term. For Type A local government, the equation for budgetary constraints together with

$$\tau_{A2}n + Z_{A2}{}^H = (1+r_A{}^J)G$$

and equation (10) gives the following:

$$\tau_{A2} = \frac{(1-p)(1+i)G}{(1-\theta)n} .$$

In addition, in Type B local government, the equation for budgetary constraints

$$q\{\tau_{B2}n + Z_{B2}{}^H - (1+r_B{}^J)G\} + (1-q)\{Z_{B2}{}^D - (1+r_B{}^J)G\} = 0$$

together with equations (10) and (10')formulates the following:

$$\tau_{B2} = \frac{(1-p)(1+i)G}{(1-\theta)n} .$$

Considering the behavior of this local government, the central government determines the national tax burden. From the amount of local tax above and the equations (10) and (11),

$$\lambda^H = \frac{(p-\theta)(1+i)G}{(1-\theta)n(Y_{A2}+Y_{B2})} \qquad (12)$$

In addition, from equations (10') and (11'),

$$\lambda^D = \frac{\{1-\theta-(1-p)\eta\}(1+i)G}{(1-\theta)nY_{A2}} . \qquad (12')$$

Now, let's describe the expected utility of the residents of each region in an equilibrium under this system. First, the expected utility of the community residents of Type A can be expressed as

$$E[x_A{}^J] = (1+i)Y + q\{(1-\lambda^H)Y_{A2} - \tau_{A2}\} + (1-q)\{(1-\lambda^D)Y_{A2} - \tau_{A2}\}$$

$$= (1+i)Y + Y_{A2} - \frac{(1-p)(1+i)G}{(1-\theta)n}$$

$$- q\frac{(p-\theta)(1+i)GY_{A2}}{(1-\theta)n(Y_{A2}+Y_{B2})} - (1-q)\frac{\{1-\theta-(1-p)\eta\}(1+i)G}{(1-\theta)n} . \qquad (13)$$

In the same way, the expected utility of the community residents of Type B can be expressed as

$$E[x_B{}^J] = (1+i)Y + q\{(1-\lambda^H)Y_{B2} - \tau_{B2}\}$$

$$= (1+i)Y + qY_{B2} - q\frac{(1-p)(1+i)G}{(1-\theta)n} - q\frac{(p-\theta)(1+i)GY_{B2}}{(1-\theta)n(Y_{A2}+Y_{B2})} . \qquad (14)$$

4. Comparative Institutional Analysis between Local Bonds of Japan and the US

Now, let's compare which of the two systems has higher economic welfare. First, let's say that in the model describing the US system, equation (6) is valid as a situation in which only separating equilibrium is valid. Then, suppose that p>θ holds true as a condition describing the Japanese system.

In this case, when both Type A's are compared, the threshold of Γ that makes it $x_A^{SU} - E[x_A^J] = 0$ is, from equations (4) and (13),

$$\Gamma = \frac{G}{1-\theta}\{q(\theta - p)\left(\frac{Y_{B2}}{Y_{A2}+Y_{B2}}\right) + (1-q)(1-\eta)(1-p)\} \equiv \Gamma_A^J .$$

Here, when Γ_A^J and Γ^{PU} are compared, under p<θ,

$$\frac{(1+i+\mu)(1-\eta)(1-q)}{(1+i)\{\eta + (1-\eta)q\}}G < \frac{G}{1-\theta}\{q(\theta - p)\left(\frac{Y_{B2}}{Y_{A2}+Y_{B2}}\right) + (1-q)(1-\eta)(1-p)\}.$$

In other words, $\Gamma^{PU}<\Gamma_A^J$. Since equation (6), or in other words, $\Gamma<\Gamma^{PU}$ holds true at this moment, $\Gamma<\Gamma_A^J$ holds true at all times. Accordingly, it can be said that $x_A^{SU}>E[x_A^J]$.

In the same way, when the Type B's are compared, from equation (5) and (14),

$$E[x_B^{SU}] - E[x_B^J] = [\frac{(1+i)q}{1-\theta}\{1 - p + (p-\theta)\left(\frac{Y_{B2}}{Y_{A2}+Y_{B2}}\right)\} - \{1+i+(1-q)\mu\}]G$$

$$= [\left(\frac{q}{1-\theta}\frac{(1-p)Y_{A2}-(1-\theta)Y_{B2}}{Y_{A2}+Y_{B2}} - 1\right)(1+i) - (1-q)\mu]G$$

$$= [-\left(\frac{(1-\theta)-q(1-p)}{1-\theta}\frac{Y_{A2}}{Y_{A2}+Y_{B2}} + (1-q)\frac{Y_{B2}}{Y_{A2}+Y_{B2}}\right)(1+i) - (1-q)\mu]G \equiv W_B$$

$$< 0 \tag{15}$$

always holds true. Therefore, it can be said that $E[x_B^{SU}]<E[x_B^J]$. In other words, it can be state that for Type B local governments, expected utility is higher under the Japanese local bond system than under the US local bond system.

Now, let's compare the economic welfare of the entire economy between the two systems. Here, simply the expected utility (= expected consumption) of the residents of both types weighted by the population composition ratio and added up will be considered the welfare of the entire economy. That is to say, expressed as $\eta JnE[x_A]+(1-\eta)JnE[x_B]$.

When comparing the welfare of the entire economy between the two systems, the difference in welfare between welfare under the American system and the welfare of the

Japanese system is

$$W \equiv \eta Jnx_A{}^{SU} + (1 - \eta)JnE[x_B{}^{SU}] - \{\eta JnE[x_A{}^J] + (1 - \eta)JnE[x_B{}^J]\}$$

$$= J[\eta(1+i)(\Gamma_A{}^J - \Gamma)$$

$$- (1 - \eta)G\{\left(\frac{(1-\theta) - q(1-p)}{1-\theta} \frac{Y_{A2}}{Y_{A2} + Y_{B2}} + (1-q)\frac{Y_{B2}}{Y_{A2} + Y_{B2}} \right)(1+i) + (1 - q)\mu\}].$$

What can be said by this is that when the examination fee paid to the rating agency Γ is small enough to the extent that W>0, viewed from the overall economy, welfare under the American system becomes higher than under the Japanese system. Such examination fee Γ is

$$\Gamma < \Gamma_A{}^J + \frac{1-\eta}{\eta(1+i)}W_B.$$

It should be noted that W_{Bi} is a negative constant defined in equation (15).

Viewed from a different angle, in a situation where W>0, when shifting from the Japanese system to an American system, if the central government makes a separate income transfer from Type A local government to Type B local government, not only Type A but also Type B local government will obtain higher expected utility than under the Japanese system,

From the above, the possibility that in either type, by making a certain income transfer, expected utility under the American local bond system will be higher than the expected utility in an equilibrium under the Japanese local bond system is demonstrated. This suggests the possibility that the economic welfare may rise by shifting the local bond system of Japan to a market-oriented system similar to that of the American local bond system.

The reasons for such differences arising in economic welfare are the following. In this Chapter, the local bond system of both Japan and the US were formulated, but the situation of the local government is the same in either case. Namely, that Type B local government will default with a certain probability is the same under both systems, and in that sense, the risk of default exists in the same degree. However, the way this risk is shared is different. Whereas in the American system, the risk is shared through arbitrage trading among the participants in the financial market (lenders and borrowers), in the Japanese system, the risk is shared among national taxpayers through the LAT grant, raised through national taxes. In this model, in comparison to the number of national taxpayers, the number of participants in the financial market is greater (so much that individual actors cannot affect the price). In particular, it can be observed that the number of people sharing the risk is even less, since under the

situation where Type B local government defaults, the only ones paying national taxes will be community residents of Type A. In general, since it is preferable that risk be shared among a greater number of actors, reflecting such nature, the result is higher economic welfare in the American system where the risk is shared among a great many actors.[24]

From this perspective, it is considered that the local bond system of Japan reduces its economic welfare by not dealing well with the risk of not being able to repay debt on its own, and thereby imposing an excessive burden on the system. [25]

VI. The Trend of the Local Bond System in Various Countries and the Insights for Japan

1. The Trend of Local Bond Systems in Various Countries

Although the local bond system of each country differs according to the framework of the system of public finance of each country, such as the approach to fiscal policy, central-local fiscal relationships, the situation of the allotment of duties among levels of governments when it is classified from the perspective of central government involvement and the function of market mechanisms, it can be divided into four types, i.e., administrative-control approach, market discipline approach, rules-based approach, and cooperative control approach. In this study, a close investigation was conducted on the countries that were judged to be under the function of market mechanisms in the administration of local bonds in previous studies by IMF (US, France, Sweden, Canada) and insights for Japan's local bond system have been obtained.[26] We summarize the changes in local bond management of industrialized countries in Figure VI – 1

(1) The Trend of Local Bond Management through Market Mechanisms in Each Country

In order to promote the expansion of private funds in the future, it is necessary to add elements that make market mechanisms function in the Japanese local bond system, which currently takes an administrative-control approach. In the US and Canada, where publicly-offered bonds make up for a great part of financing, efforts are made to make fiscal discipline work through market mechanisms via the circulatory market.

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[24] In Japan, because bondholders are mainly financial institutions, it may appear that there is only a small number of direct bondholders, but in reality, if traced back to the depositors of those financial institutions, which are the original creditors, then, it is not so difficult to imagine that this exceeds national taxpayers in number.

[25] Doi and Hoshi (2003) point out that the amount of local bonds that will not be repayable by using own revenues is about 89.5 trillion yen as of the end of fiscal 2001.

[26] Local studies in Sweden and Canada are not reported in this paper. We described these in the Japanese version of our paper.

Furthermore, even in France and Sweden, where bank lending is mainstream, bonds can be issued freely by local authorities, and a style in which banks and creditors screen local fiscal management in conformity with market rules has taken root.

(2) The Trend to Provide Roles that Complement Market Mechanisms

Of course, in some aspects, market mechanisms alone do not make fiscal discipline function. Although it has been considered that Canada attaches discipline entirely by market mechanisms, the outstanding debt of its provincial governments rapidly soared in the 1990s. One reason behind this is believed to be the fact that fiscal operations of local governments not always responds in time to market signals and this suggests that there is a limit to disciplining through market mechanisms alone. Since the late 1990s, in Canada, provinces that discipline their own public finance by self-imposing fiscal balance rules, as well as those that have enhanced their ratings have gradually increased.

In the US, France and Sweden as well, rules in budget planning such as a fiscal balance rules (France and Sweden), and rules concerning bankruptcy of local authorities (US) have been established in the form of complementing market mechanisms.

2. Insights from the Cases of Countries Abroad
(1) The origin of local fiscal discipline under decentralization is the existence of interest rate differences by market mechanisms.

Because guarantee by the national government on debt does not exist, or because this is limited, interest rate differences appear on local bonds between local governments. The very existence of the difference in interest rate is the origin of disciplining of fiscal administration of local governments. This can be observed in the close examination of the project or repayment resources when local governments and market players concerned issue bonds, efforts to obtain higher ratings and guarantee by bond insurers through active disclosure and establishment of self-imposed rules on fiscal balance, and rigorous management over a mid and long-term period of the issuer's overall finance of debt.

For example, in the US, municipal bonds are not guaranteed by the federal or state government. In the case of revenue bonds, which are issued to finance infrastructure and large-scale public capital investment, the source of funds for repayment are limited to revenues from the project that was financed through these bonds; therefore, the interest rate depends on the earnings rate of the project. Due to this, efforts are made to

raise the profitability of the project.

Furthermore, from the theoretic analysis in Chapter V, in examining the future local bond system of Japan by qualitatively comparing economic welfare under the existing system and the market-oriented American system, it was suggested that the Japanese system should be reformed to one that applies market mechanisms.

(2) A rigorous study of the repayment capacity of various actors in the market creates fiscal discipline.

With regard to publicly-offered bonds, in the process leading up to its issue, various actors in the market concerned with the bond issue (securities companies, rating agencies, etc) conduct a close examination of the possibility that the debt will be repaid, and in this process the profitability of a project is strictly examined. For this reason, in order to issue bonds at low interest rates, obtaining high ratings as well as guarantees by bond insurers, not only disclosure of a project document, but also of various financial data are indispensable.

For example, in the US, not only credit rating agencies, but bond insurers as well that attach guarantees to local bonds to enhance their credibility, along with lawyers and consultants involved in the issuance play an important role. In this way, a great number of stakeholders are supporting the local bond system multilaterally, through their respective positions. In Sweden and France, banks that lend to local governments examine the financial conditions of the local governments more prudentially than loans to private firms when setting such terms such as the interest rate.

(3) The existence of various rules that support market mechanisms

In France and Sweden, concerning local fiscal administration, the balanced budget rule and budgeting debt only as capital expenditure is set out by law. Since fiscal administration is conducted based on this principle, basically, local governments manage debt with prudence. In France, although a Special Subsidy Program exists for local governments in financial crisis, the subsidy is limited to an extremely small amount, proving the position of the state to limit assistance for local governments in financial insolvency. Therefore, local governments are cautious to take on new debt and the screening of financial institutions is also very strict.

In the US and Canada, in many cases state or provincial laws regulate the limit of municipal bonds issues.

Furthermore, concerning market players (securities companies, etc), in the US, the Municipal Securities Rulemaking Board (MSRB) under the oversight of the Securities

and Exchange Commission (SEC) establishes regulations concerned with the issue and trading of municipal bonds, imposing penalties for violators. This regulation is applied to securities companies and such that are engaged in trading, but indirectly, it also functions to promote the fair and proper behavior of local governments.

(4) Autonomous fiscal administration based on a mid-term capital commitment plan

There are many cases in which the issuer local government is seen to be making efforts at bond issuance management and active IR through a mid-term capital commitment plan, and so forth. In the US and Canada, local governments sometimes try to enhance their creditworthiness by establishing self-imposed rules on fiscal balance.

The placement of highly specialized public finance officers is also important. In the US, the Government Finance Officers Association (GOFA) holds seminars, manages the Certified Public Finance Officer (CPFO) scheme nationwide, and draws up guidelines for preparing project documents. Such activities contribute to enhancing the quality of financial management by municipalities. In Canada, an agency specializing in debt management, run by a group of specialists well acquainted with financial affairs has been established in the provincial governments.

(5) Establishing rules for debt liquidation through bankruptcy laws

In the US, in the event that local governments default, by filing for bankruptcy under Chapter 9 of the federal Bankruptcy Code, these can continue offering their services while undergoing debt adjustment through reconstruction by debt cancellation and payment rollover. Because debt adjustment is undertaken following a pre-established transparent process, and there are rules that make creditors shoulder a good portion of the obligations, it can be said that this prevents the moral hazard of related actors beginning with creditors. It must be added that the application of the federal Bankruptcy Code on local governments varies by state and while there are states with statutes for debt adjustment, there are others that prohibit filing with the federal Bankruptcy Code.

Doi (2005) proposes that the Japanese should build a new system of law relating to bankruptcy of local governments, because "the implied government guarantee" is not enough to prevent "bankruptcy" of a local government.

(6) Response towards small local governments

For small local governments without high-level financial knowledge and techniques,

that require funding but in small sums, there are funding agencies such as the state bond bank (US) through which joint issuance is possible, and joint borrowing by a local funding agency jointly funded by local governments (Sweden). In Canada, a local government financial corporation established by the provincial government lends to local governments and public enterprises in its province, engaging in efficient funding with favorable conditions.

In France, since low-interest financing for local governments by state financial institutions was abolished and state financial institutions for local financing was privatized almost at the same time of decentralization, financial institutions that were privatized and other private financial institutions offer new and diversified financial products. These institutions also lend to small entities.

(7) An adequate burdening of risk concerned with local bonds via market

Regarding risk related to local bonds, whereas the American system shares the risk among the participants in the financial market (lenders and borrowers) through arbitrage trading, under the Japanese system, through local allocation tax grants, the risk is shared among national taxpayers that fund the source of the tax grants in question. Generally, compared to the number of national taxpayers, the number of participants in the financial market is greater (to the extent that an individual actor cannot influence prices). Since it is preferable to share the risk among a greater number of actors, this suggests that the market-oriented local bond system that shares the risk among more actors better shares the risk.[27]   From the theoretical analysis in Chapter V, it is considered that the local bond system of Japan reduces economic welfare by providing excessive burden, since the risk of not being able to service debt on one's own is not being dealt with smartly.

In addition, although not directly addressed in this paper, in previous studies, it has been demonstrated that the System of Local Allocation Tax Grants has shortcomings, arising from an area that deals with the nucleus of the system, in that the amount of grant is determined bearing no relation with moral hazard, soft budget constraints a la Kornai (1979) or the optimal size of public finance.[28]   On such points, slight improvements will not rectify the distorted incentives of local governments. In order to resolve these shortcomings, the very method of defining Standard Financial Need or

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[27] In Japan, because bondholders are mainly financial institutions, it may appear that there is only a small number of direct bondholders, but in reality, if traced back to the depositors of those financial institutions, which are the original creditors, then, it is not so difficult to imagine that this exceeds national taxpayers in number.

[28] On soft budget constraints related to the fiscal relationship between the central and local governments in Japan, it is also referred to in Sato (2002).

Standard Financial Revenue must be revised fundamentally.

As mentioned above, by reforming the local bond market, it is desirable that the risk concerned with local bonds be shared among participants through the market, rather than by a smaller circle of national taxpayers through the local allocation tax grant. At the same time, through disciplining by the market, hardening of the budget restraints of local governments can be expected.

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