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The Role of the Local Allocation Tax and Reform Agenda in Japan
—Implication to Developing Countries—

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—Implication to Developing Countries—

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Abstract

The contemporary Japanese government system evolved from the aftermath of World War II. In recent years, there is an increasingly prevalent view that this system is no longer functional or sound, and thus one of the most important challenges of today's Japan is to promote decentralization of the public administration and financial system of local authorities. This paper focuses on the Local Allocation Tax (non-specified inter-governmental transfer) system and investigates whether income gaps between prefectures have declined during 1980-2001, and if so, to what extent the system has contributed to such a regional convergence. This paper also briefly overviews conditions in developing countries and their inter-governmental transfer systems. So far, the Russian system appears to be superior to China's since it is more rule-based and simpler. However, because of the huge regional income differences inherited from past economic policies, the system has not yet succeeded in narrowing income differences and promoting incentives to improve revenue and expenditure performance. The paper also discusses recent reform efforts to deal with local governmental problems in Japan.

Key Words: Local Allocation Tax, inter-governmental transfers, regional income differentials, Japan, developing countries

1 Introduction

The role of local government (consisting of 47 prefectures and 3,181 municipalities as of September 2003) in the Japanese economy is important for three reasons. First, local government expenditure (after excluding non-value-added items, such as public debt payments and maintenance/relief expenses) amounted to ¥67.7 trillion or 13.5% of Gross Domestic Expenditure (GDE) in 2001. Given that the Central Government and Social Security Fund expenditures accounted for only 4.6% (¥23 trillion after excluding non-value-added items) and 6.1% (¥30.6 trillion), respectively, of GDE, the contribution of the local government expenditure to GDE was the largest among the three government entities (Table 1).

Table 1 Gross Domestic Expenditure and Local Government Expenditure, 2001

	Trillion Yen	% of GDE	% of Official
Gross Domestic Expenditure (GDE)	502.6	100.0%	–
Private Sector	377.3	75.1%	–
Official Sector	121.4	24.2%	100.0%
Central Government	23.1	4.6%	19.1%
Local Government	67.6	13.5%	55.7%
Social Security Fund	30.7	6.1%	25.3%
Net Exports of Goods and Services	3.9	0.8%	–

Second, local government has been a major provider of diverse public services to the community. Local government consists of general administrative, special administrative, and public enterprises sectors; the special administrative sector being the main provider of public goods. According to a functional decomposition of expenditures, the share of the local government's expenditure to the general government spending accounts for 94% in terms of health/sanitary expenses, 85% of school education expenses, 83% of social education expenses, 80% of judicial, police, fire service expenses, 73% of land development expenses, 72% of commercial and industrial expenses, 68% of land preservation expenses, and 63% of public welfare expenses. As a result, in 2001 local government accounted for 63% of the total general government expenditure of ¥153.3 trillion. While this is greater than that in the United Kingdom or France, whose local government shares account for about 40% of the total general government expenditures, the share is comparable to that in the United States, but below Germany and Canada whose local government ratios account for more than 80% of relevant expenditures.

Third, local government is one of the largest absorbers of labor. In 2001, local governments hired 3.1 million employees (accounting for 5% of Japan's total employment).

By contrast, the central government hired only 484,000 employees (799,400 employees if those of national state enterprises are included). The greater number employed by local government reflects that it supervises a substantial part of total public administration, as indicated above. The make up of local government employment is that the general administrative sector hires 1.1 million employees (35% of the total), the special administrative sector hires 1.6 million employees (51%), and the local public enterprises sector the balance. Nevertheless, the numbers employed have steadily declined from a peak of 3.3 million employees in 1994, reflecting restructuring efforts. In the general administrative sector, about 60% of employment is allocated to the general administration section and the rest to the welfare section. In the special administrative sector, 74% is allocated to the education section.

The contemporary Japanese government system evolved from the aftermath of World War II. However, there is an increasingly prevalent view that this system is no longer functional or sound, and thus one of the most important challenges of today's Japan is to promote decentralization of the public administration and financial system of local authorities. Until recently, local government has not been given sufficient authority over the introduction of new local taxes or the issuance of local government bonds. Under the current system, the central government has been responsible for monitoring local government and guaranteeing its survival in exchange for requiring that the latter implement a nationally-formulated policy. This centralized system could be justified in the period when Japan was economically devastated and there was an absence of human capital and budgetary resources at the local government level; as indeed was the case in the aftermath of World War II. However, the system has barely changed, even though Japan's economy has already entered stage of maturity; so that diversified local conditions have increasingly required flexible and regional-specific fiscal policies.

Moreover, a recent phenomenon needs to be noted; that even economically stronger regions (such as *Tokyo Metropolitan*, *Osaka*, *Kanagawa*, and *Aichi Prefectures*) have faced deteriorating fiscal balances in their settlement accounts, as indicated by Shirai (2004). Given that local government fiscal problems occurred mainly in economically weaker prefectures in the past, this recent phenomenon should be treated as a warning signal of an eventual deterioration of the central government's own fiscal position. This perplexed circumstance is closely associated with an unsound revenue structure, a distortionary inter-governmental transfer system, a widening gap between revenue and expenditure, and constraints imposed on the issuance of local government bonds. Given the deteriorating local governments' fiscal conditions, it is crucial that the whole government system undergo a thorough review in order to achieve a growth-oriented sustainable fiscal position. Moreover, it is increasingly questionable whether the public services currently undertaken by local governments should be continued to be provided by them. Given that Japan's economy has matured and enjoys prosperity, some services could be more efficiently performed by the private sector.

This paper focuses on the Local Allocation Tax (non-specified inter-governmental transfer) system and investigates whether income gaps between prefectures have declined during 1980-2001, and if so, to what extent the system has contributed to such a regional convergence. This paper also discusses recent reform efforts to deal with local governmental problems, and also briefly overviews conditions in developing countries and their inter-governmental transfer systems. The paper consists of four sections. Section 2 takes an overview of Japan's regional income differences. Section 3 takes a formal approach to investigate whether income gaps between prefectures have declined during 1980-2001, and if so, to what extent the inter-governmental unconditional transfers (called "Local Allocation Tax") have contributed to such a regional convergence. This section also briefly overviews conditions in developing countries and their inter-governmental transfer systems. Section 4 discusses recent reform efforts to deal with local governmental problems.

2 Regional Income Differences

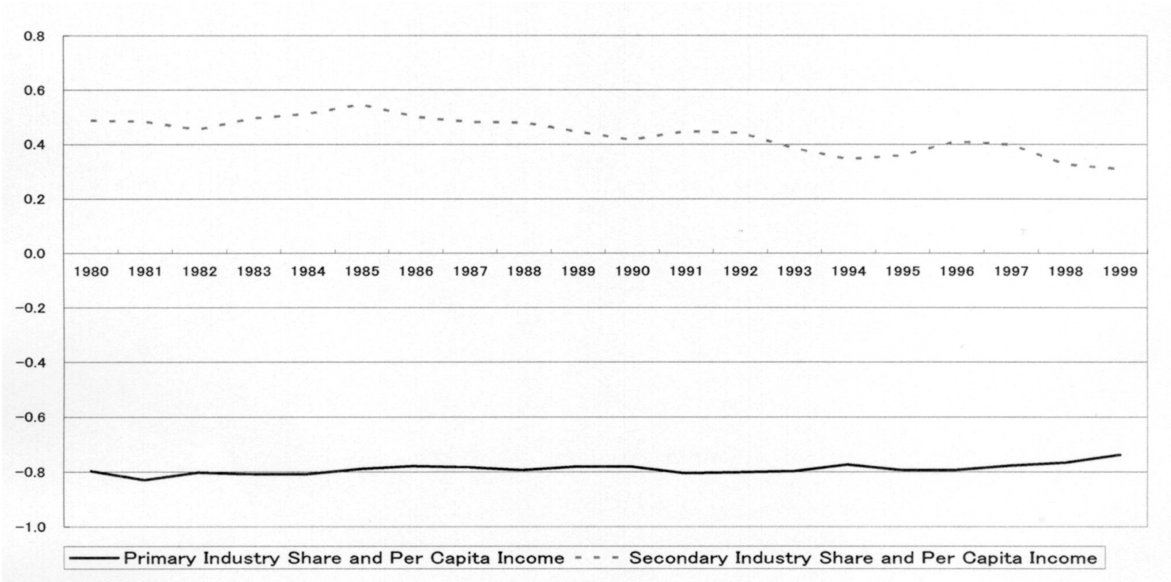
In Japan, the average income rose from about ¥1.7 million in 1980 to a peak of ¥3.3 million in 1996, subsequently followed by a decline in 1997-1999 due to a deterioration of the economic growth. Table 2 shows trends in respect of average income per capita of all prefectures and the coefficient of variation. The table also indicates that the income gap between the highest income prefecture (which always been Tokyo Metropolitan) and the lowest income prefecture has risen steadily from ¥1.2 million in 1980 to ¥2.6 million in 1990, followed by a decline to ¥2.1 million in 1998-1999. This pattern is consistent with the movement of the coefficient of variation, which reflects regional imbalances or dispersion from the average. The coefficient rose steadily from 0.14 in 1980 to 0.16 in 1990, probably because the high economic growth period of the 1980s benefited industrial and metropolitan regions disproportionately. However, the overall economic slowdown has led to a sharp decline in regional differentials with the coefficient dropping from 0.14 in 1990 to 0.13 in 1995, and then to a moderate decline to 0.12 in 1999.

Table 2 Per Capita Income Trends, 1990-1999 (Millions of Japanese Yen)

	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
HOKKAIDO	1.6	1.6	1.7	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.7	2.8	2.8	2.8	2.7	2.7
TOHOKU	1.4	1.5	1.5	1.6	1.7	1.8	1.8	1.9	2.0	2.2	2.3	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.6	2.7
KANTO	1.8	1.9	2.0	2.1	2.2	2.4	2.5	2.6	2.8	3.0	3.2	3.3	3.4	3.4	3.4	3.4	3.5	3.5	3.4	3.3
Tokyo	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.6	3.9	4.3	4.5	4.5	4.4	4.3	4.3	4.4	4.4	4.4	4.2	4.2
Kanagawa	1.9	2.1	2.1	2.2	2.3	2.4	2.5	2.7	2.8	3.1	3.3	3.4	3.4	3.4	3.4	3.5	3.6	3.5	3.4	3.3
CHUBU	1.6	1.8	1.8	1.9	2.0	2.2	2.3	2.4	2.5	2.7	2.9	3.0	3.0	3.0	3.0	3.1	3.2	3.1	3.0	3.0
Aichi	1.9	2.1	2.2	2.3	2.4	2.6	2.7	2.9	3.1	3.4	3.6	3.7	3.7	3.6	3.6	3.7	3.9	3.8	3.7	3.6
KINKI	1.7	1.8	1.9	1.9	2.0	2.1	2.2	2.3	2.5	2.6	2.8	3.0	3.0	3.0	3.0	3.1	3.2	3.1	3.0	3.0
Osaka	2.1	2.2	2.3	2.3	2.4	2.5	2.6	2.7	3.0	3.0	3.4	3.6	3.7	3.5	3.5	3.6	3.7	3.6	3.4	3.4
CYUGOKU	1.5	1.6	1.6	1.7	1.9	1.9	2.0	2.1	2.3	2.4	2.5	2.7	2.7	2.7	2.7	2.8	2.8	2.8	2.7	2.7
Tottori	1.4	1.5	1.6	1.7	1.7	1.8	1.8	1.9	2.0	2.2	2.4	2.5	2.5	2.5	2.6	2.6	2.7	2.6	2.6	2.6
Shimane	1.2	1.3	1.3	1.4	1.7	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.3	2.4	2.4	2.5	2.5	2.4	2.5
SHIKOKU	1.5	1.5	1.6	1.6	1.7	1.8	1.9	1.9	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.6	2.7	2.7	2.6	2.6
Kochi	1.4	1.5	1.6	1.6	1.6	1.7	1.7	1.8	1.9	2.0	2.0	2.1	2.3	2.3	2.4	2.4	2.4	2.4	2.3	2.4
KYUSHU	1.4	1.5	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.4	2.5	2.5	2.6	2.5	2.5	2.5
Saga	1.4	1.5	1.6	1.6	1.7	1.8	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.5	2.6	2.7	2.6	2.6	2.7
OKINAWA	1.2	1.3	1.4	1.4	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.2
AVERAGE	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.6	2.8	3.0	3.1	3.1	3.1	3.1	3.2	3.3	3.2	3.1	3.1
Maximum	2.4	2.6	2.8	2.9	3.1	3.3	3.5	3.6	3.9	4.3	4.5	4.5	4.4	4.3	4.3	4.4	4.4	4.4	4.2	4.2
Minimum	1.2	1.3	1.3	1.4	1.5	1.5	1.6	1.7	1.8	1.9	2.0	2.0	2.0	2.1	2.1	2.1	2.2	2.1	2.2	2.2
Difference	1.2	1.3	1.4	1.5	1.6	1.7	1.9	1.9	2.2	2.5	2.6	2.4	2.3	2.2	2.2	2.2	2.2	2.3	2.1	2.1
Coefficient of Variation	0.14	0.14	0.14	0.14	0.14	0.14	0.15	0.15	0.16	0.16	0.16	0.16	0.15	0.14	0.13	0.13	0.13	0.13	0.13	0.12

Chart 1 indicates that per capita income is positively associated with the share of secondary industry (mainly the manufacturing sector) and negatively associated with the share of primary industry (mainly the agricultural sector). The degree of correlation between the share of secondary industry and per capita income has declined from 0.5 in 1985 to 0.3 in 1999, reflecting that an industrial shift toward the tertiary (mainly, services) sector has lowered the contribution of secondary industry to economic growth. By contrast, the degree of correlation between the share of primary industry and per capita income has remained high at -0.8 throughout the period, supporting the view that an economic concentration on the agricultural sector is one of the main causes of the relative low income levels of some prefectures.

Chart 1 Correlation between Industrial Structure and Per Capita Income



Based on prefecture-level data, Charts 2a and 3a indicate the average and coefficient of variation of four regions (Kanto, Chubu, Kinki, Chugoku) whose per capita incomes were largest among the seven regions, while Charts 2b and 3b exhibit those of three (Tohoku, Shikoku, Kyushu) regions whose per capita incomes were lowest. Charts 2a and 2b show that all regions increased their average per capita during 1980-1995, followed by stagnancy during 1996-1999. By contrast, Charts 3a and 3b indicate divergent performances between the four wealthier and three poorer regions. In particular, the coefficients of variation among the four wealthier regions have shown a more or less declining trend during the 1990s, probably because manufacturing sector economic activities severely affected these regions simultaneously due to the presence of large numbers of manufacturing firms. On the other hand, those of the poorer three regions also declined during the first half of the 1990s, but then increased during the second half of the 1990s. This may reflect that these regions have different concentrations of agricultural products, so that the impact of recession has had divergent impacts on these regions.

Chart 2a Average Per Capita Income of Four Wealthier Regions
(Millions of Japanese Yen)

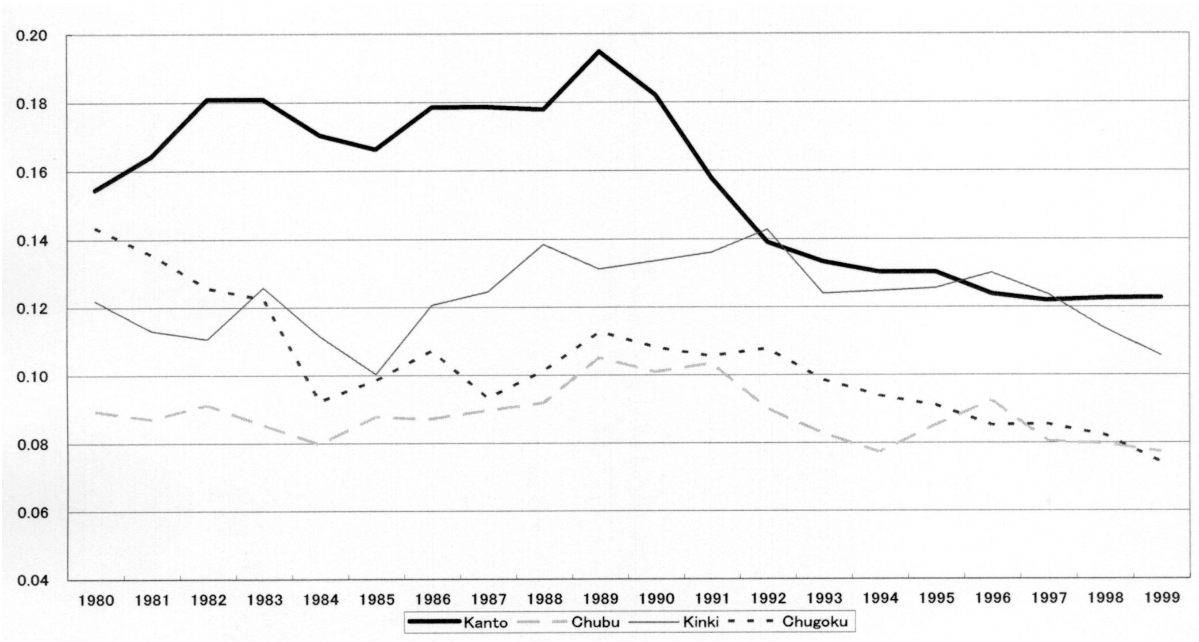


Chart 2b Average Per Capita Income of FOUR Poorer Regions
(Millions of Japanese Yen)

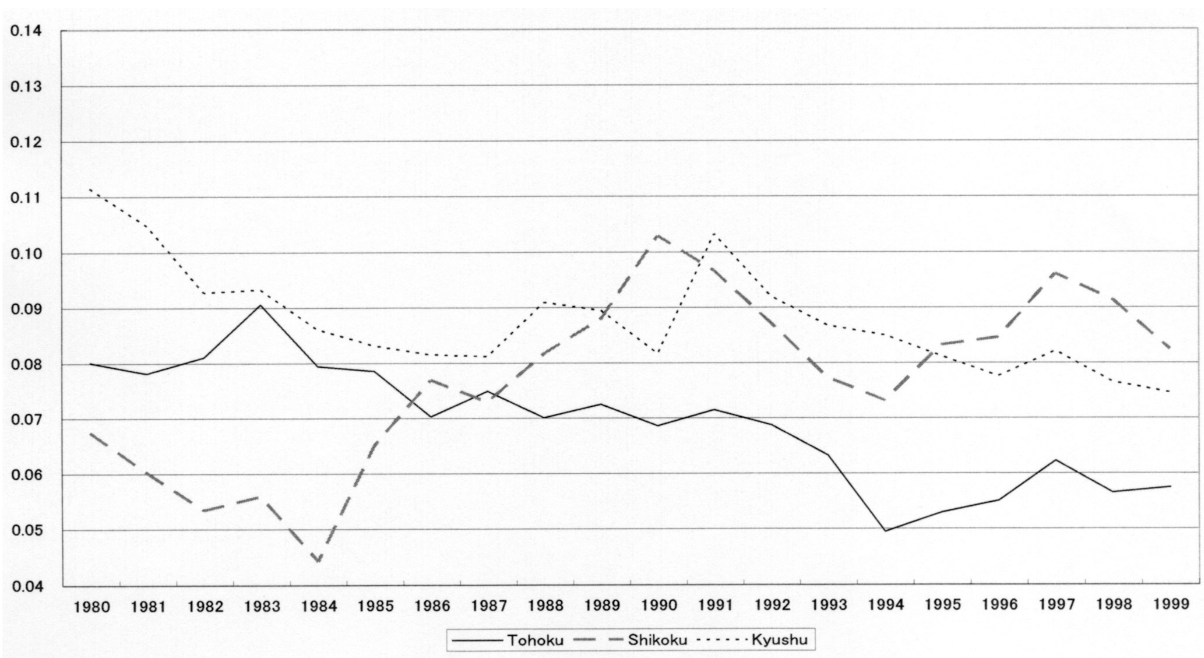


Chart 3a Coefficient of Variation of Per Capita Income of FOUR Wealthier Regions

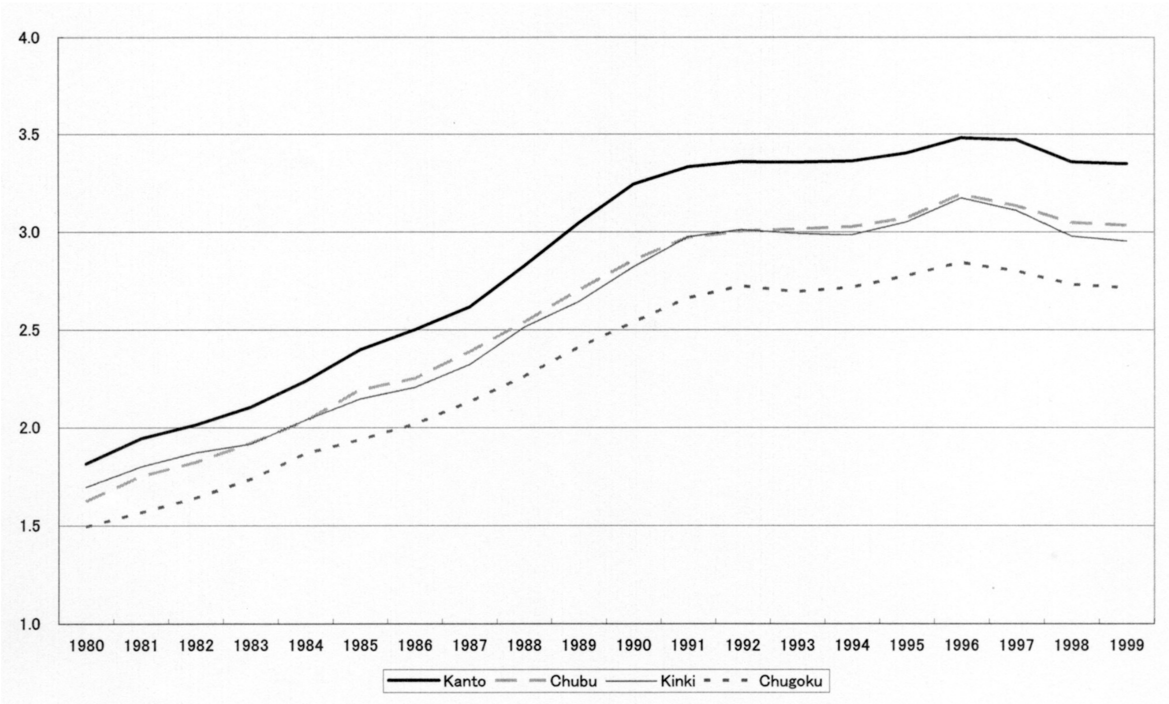
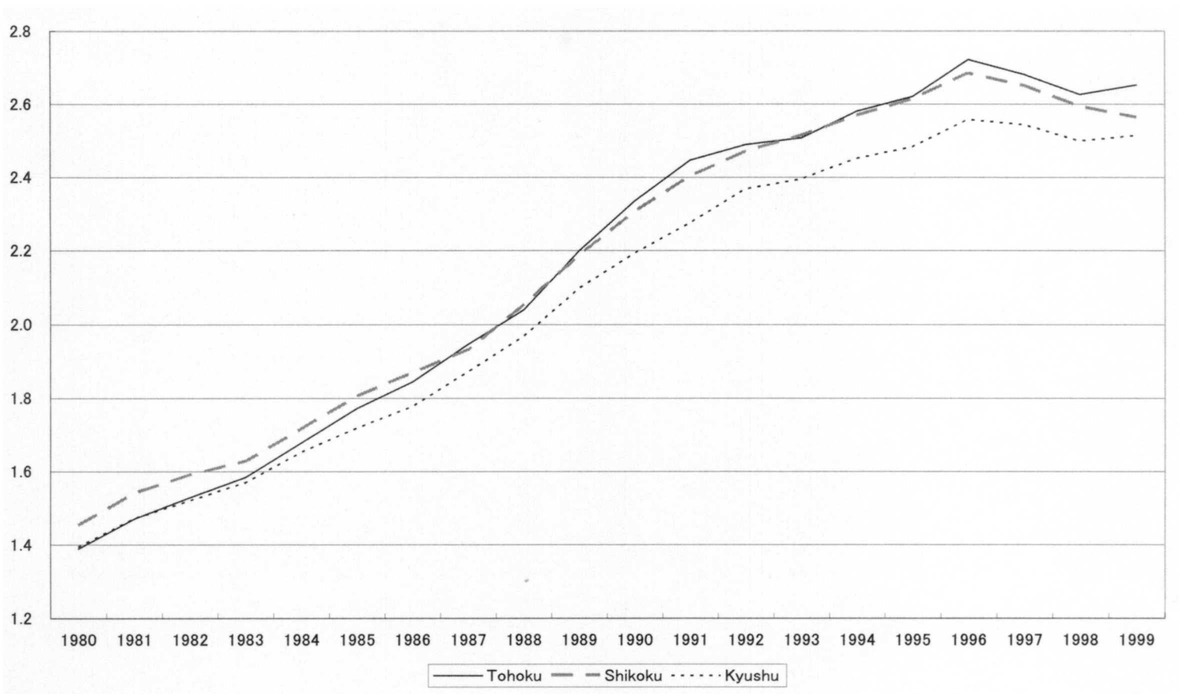


Chart 3b Coefficient of Variation of Per Capita Income of FOUR Poor Regions



3 Role of Local Allocation Tax System on Income Equalization

This previous section showed that differences in per capita income across the 47 Japanese prefectures have narrowed in the 1990s as compared with the 1980s; as shown in Charts 3a and 3b. Theoretically, a country can achieve high overall economic growth while maintaining regional differentials. However, the presence of large regional differentials could slow down national economic integration and retard the process of sustainable economic growth. A decline in regional differentials also contributes to political stability and public safety. Thus, this paper first provides a formal analysis investigating the issue of whether there has been any convergence of per capita income levels across prefectures during 1980s and 1990s. It then examines whether this improvement in regional income differences can be attributed to the Local Allocation Tax system, using a simple panel regression analysis. Given that industrial structures and national endowments differ across prefectures, this section focuses on whether such an inter-governmental transfer system has provided growth impetus to the various prefectures.

3.1 Sigma-Convergences

According to the Harrod-Dormer and subsequent Solow's Neoclassical Economic Growth models, a less-developed county with a lower capital-labor ratio is expected to achieve higher economic growth by accumulating fixed capital formation. This is because the paucity of capital stock accumulated by these countries enables them to obtain greater marginal product of capital under the rule of diminishing marginal product, thereby being able to catch up to the income levels of prosperous countries. This assumes that all countries are open to foreign trade and capital flows. In particular, the convergence to the same level of long-run steady-state per capita income level takes place as long as countries have the same rates of population growth, the same levels of saving ratios, and the same types of technology. If a developing country has a higher population growth, it could still have a higher rate of economic growth, but would converge to a lower level of per capita income level over the long run. If a developing country saves less relative to its GDP, the same pattern is expected to occur. On the other hand, if an industrial country successfully produces technological innovations so that its productivity growth is greater than that of a developing country, it is able to achieve a higher per capita level in the long run, so that it takes even longer for a developing country to catch up to the income level of the industrial country. An industrial country, therefore, is able to continue to raise its per capita income level as long as innovations and resultant productivity growth take place.

A similar reasoning could be applied to the situation of regional differences within a country. A less-developed prefecture with a lower capital-labor ratio (such as Tottori, Shimane, Kochi, Saga and Okinawa) is able to achieve a higher economic growth by increasing per capita capital stock, thereby converging to the per capita income level of a prosperous prefecture (such as Tokyo Metropolitan, Kanagawa, Aichi and Osaka). If the convergence assumption holds, the relationship between the initial level of per capita income (for example, 1980) and average growth rates (for example, during the 1980s and 90s) becomes negative. The lower the initial level of per capita income level, the higher the subsequent economic growth rate.

To examine the presence of convergence, a frequently used approach is to calculate the coefficient of variation, as shown in Chart 3a and Chart 3b. This approach is formally called " σ-convergence," and is concerned with cross-sectional dispersion of per capita income (Barro and Sala-i-Martin 1995; Hossain 2000). If the coefficient of variation declines over a period, it is thought that convergence exists, so that income differentials across prefectures would decline. Table 2 indicates the time-series coefficients of variation using data of the 47 prefectures. The coefficient rose from 0.14 in 1980 to 0.16 in 1988, remained at 0.16 during 1988-1991, and then declined to 0.12 in 1999. This indicates that prefecture-level income disparity declined in the 1990s. However, one should be careful as σ-convergence simply indicates that per capita income across prefectures has become more evenly distributed; it does not necessarily indicate that this convergence has happened because a less-advanced prefecture has achieved higher economic growth than a prosperous prefecture. Thus, it is not clear whether a decline in income differentials took place because poorer prefectures achieved higher per capita growth or wealthier prefectures faced a slow down in economic growth.

3.2 Beta-Convergence

Therefore, a more formal approach is needed to investigate whether convergence has taken place as indicated by the growth theories. This subsection adopts as its approach, the so-called " β-convergence." In the past, this approach has been performed on the basis of a cross-sectional regression of the time averaged per capita income growth rate to the initial per capita income level, as indicated in the equation below. In recent years, the model has been utilized using panel data by regressing economic growth from the previous period's level of income. In both cases, it is said that β-convergence is present if the coefficient of the initial per capita income level is negative in a regression for per capita output growth. Applying this approach to regional income convergence, this subsection regresses prefectural real GDP growth (in per capita terms) from the previous year's level of prefectural per capita GDP. If the sign of the coefficient or β is negative, it would mean that a prefecture with a lower level of per capita income has achieved a higher per capita growth rate, thereby gradually converging to the per capita income level of a prosperous prefecture. Using real per capita GDP and converting per capita income (y) to the logarithm, the equation is used with the panel data for the period of 1980-2000, and adopting first the Ordinary Least Squares (OLS) method.

$$(\ln y_t - \ln y_0)/T = a + \beta \ln y_0$$

The model then takes into account prefecture-specific effects through a "fixed effect" approach, which allows the constant term in the equation to vary across prefectures. The model is also tested by adopting a "random effect" approach, which takes into account random variations within the respective prefectures. The second row of Table 10 contains the results of the panel estimation. In all cases, the coefficients of the previous year's GDP per capita or β are statistically significant at the significance level of 1% and negative, as expected by the economic growth theories. The size of β is greater under the fixed effect model, suggesting that the speed of convergence becomes greater when unexplained regional specific conditions are controlled in the model. Thus, the results supports the view that prefecture-level income differences have declined over the period 1980-2000, mainly because poorer prefectures grew faster than more prosperous ones. This observation is consistent with the result reported by Barro and Sala-i-Martin (1991, 1992), which found that per capita income levels converged in the United States during the period of 1880-1988. A similar observation is reported in the case of Canada during 1961-2000 by Kaufman et al (2003). Table 3 supports the presence of unconditional and conditional convergence among prefectures.

Table 3. Regression Results of the Convergence Equations

	Per Capita GDP Growth					
	OLS Coef.	OLS t-value	Fixed Effect Coef.	Fixed Effect t-value	Random Effect Coef.	Random Effect t-value
Initial Per Capita GDP	−0.03	−7.22 ***	−0.06	−12.2 ***	−0.01	−4.63 ***
R2	0.09		0.17		0.02	
Initial Per Capita GDP	−0.04	−8.36 ***	−0.06	−9.25 ***	−0.03	−6.52 ***
Real Local Allocation Tax Per Capit	−0.002	−2.52 **	−0.01	−2.22 **	0.00	−1.38
R2	0.08		0.17		−0.07	
Initial Per Capita GDP	−0.04	−8.13 ***	−0.07	−11.1 ***	−0.03	−7.72 ***
Real Local Allocation Tax Per Capit Growth	0.004	1.4	0.004	1.42	0.004	1.42
	0.08		0.17		0.05	

3.3 Role of the Local Allocation Tax

Local Allocation Taxes also exist in many other countries, such as the United States, Germany, Canada, Australia and the United Kingdom (Ma 1997). Also, a number of developing countries and emerging market economies—such as China, Russia, India, Korea, Indonesia—utilize such a system; Russia and China are briefly discussed in the next subsection. This inter-governmental transfer is designed to reduce fiscal disparities across prefectures, so that financially poorer prefectures are able to provide sufficient public services to their local communities.

Government intervention in income redistribution is generally justified on the grounds that economic growth alone may not reduce income differentials within a country. In general, conditions or earmarking are not supposed to be imposed on this kind of payment by the central government, since the allocations should be decided by the local government based on its own judgment with respect to needs and priorities. This type of transfer is often called an "unconditional grant." However, earmarked or "conditional grants" are also regarded as forming transfers from the central government in practice. In general, the inter-governmental transfer system can be divided into a formula-based system and a discretionary system. Ma (1997) stresses that the formula-based system is superior to the discretionary system for two main reasons. First, it bases the evaluation of each region's entitlement based on objective criteria, thereby raising transparency and avoiding unproductive negotiations and lobbying activities. Second, the formula-based system provides an effective means to address regional disparity issues. As explained in Section 2, Japan's transfers include unconditional grants (i.e. Local Allocation Tax) and conditional grants (such as National Treasury Disbursement). And, the Local Allocation Tax is calculated according to formulas that are defined as the difference between the Standard Financial Requirement and Standard Financial Revenue. While the Local Allocation Tax system might have resulted in weakening fiscal discipline among economically and financially poorer prefectures, it may have succeeded in attaining more or less the same level of public services across prefectures, as indicated in Shirai (2004).

The literature on fiscal federalism points out three economic rationales for inter-governmental transfers: (1) addressing vertical fiscal imbalances; (2) addressing horizontal fiscal imbalances; (3) addressing inter-jurisdictional spill-over effects. First, the central government tends to take a greater portion of tax revenue sources, thereby leaving insufficient tax revenues for local governments and widening their revenue-expenditure gap. Thus, the transfers are justified on the ground that they would narrow the gap and achieve fiscal balances at the local government level. Second, some regions are endowed with rich natural resources or other tax bases that are not accessible by other regions. Because of these differences, these regions may be able to generate higher income levels and revenues. Other regions may require greater expenditures due to a severe natural environment, a small working population, and better public infrastructure (such as airports, seaports, and railways). Thus, transfers can be used to mitigate the adverse implication of these differences. Third, certain public services (such as national highways, pollution, education, etc.) have externalities on other regions. Without any transfers, local governments may attempt to free-ride on neighboring local governments in order to reduce such expenses. Thus, transfers are needed to promote incentives for local governments to provide particular levels of public services (Ma 1997).

The inter-governmental transfer system is sustainable when financial resources are enough to enable local governments to maintain at particular levels of public services across regions (Ma 1997). At the same time, the system should ensure that local governments would still have incentives to improve revenue and expenditure performance. In addition, transfers should be dependent on the amount of local financial requirement and should be lowered as fiscal ability improves. Moreover, the system needs to be transparent, for example by announcing the formula in advance, so that local governments are able to forecast their own revenues including transfers, which is necessary when investment plans are formulated.

To examine the impact of the Local Allocation Tax on regional income convergence, this section uses the above regression model by including per capita Local

Allocation Tax in real terms after converting to an logarithm. The variable is derived by first deriving GDP deflator for each prefecture based on respective nominal and constant GDP and then dividing the Local Allocation Tax for each prefecture by respective population and deflator. Also, the growth rate of per capita Local Allocation Tax in real terms is used interchangeably. The results of regression analysis are reported in the third row of Table 10, which indicates that the level of Local Allocation Tax per capita actually contributed to lowering per capital GDP growth of prefectures in the case of OLS and OLS with the fixed effect, as evidenced by the coefficients being negative and statistically significant. Table 10 lists results using growth rates of per capita Local Allocation Tax and shows that the coefficients were statistically insignificant even though the signs turned out positive. These results suggest that the Local Allocation Tax system has retarded convergence by lowering growth rates.

The above results may have an important implication for the current system of local government. They appear to confirm the claim made here that the Local Allocation Tax system slowed down GDP growth rates of regional economics by generating inefficient resource allocations and crowding out the private sector. The results are different from the experience in Canada, where the Equalization payments have contributed to increasing per capita GDP growth (Kaufman et al, 2003). This analysis points to the need for the Japanese central government to seriously reconsider the design of the current local government financial management system; by considering the need to stimulate private sector economic activities and hence overall prefecture-level economic growth.

3.4 Implication for Developing Countries

Japan's experience indicates that an inter-governmental transfer system should be carefully designed in a manner that does not induce moral hazard for economically poorer areas (so that they maintain incentives to raise revenue and use funds efficiently), and, at the same time, to promote private sector economic activities and regional economic growth. The issues of regional income differences are generally more serious in developing countries, or in emerging market economies, than advanced countries, because social safety nets as well as private insurance systems are not well-developed in the former. In other words, the intergovernmental relations should be carefully designed by taking into account three goals: (1) economic efficiency, (2) stabilization, and (3) redistribution. Japan's present system appears to have emphasized the redistribution goal disproportionately as compared with that of economic efficiency; though the system may have helped to stabilize local economies in the first half of the 1990s. While an inter-governmental transfer system is necessary, one should recognize that the design and implementation of the system that fulfills these three goals is an extremely difficult task. This subsection takes an overview of the current situations of regional differentials as well as the inter-governmental transfer system in selected countries.

Russia has in the past been characterized by a high degree of geographical concentration, driven by the past government's policy to accumulate capital and industrial locations in certain regions. Such a concentration has increased even after the collapse of the Soviet Union, as exemplified by the fact that 75% of metals and fuels and more than 50% of machinery were produced in 10 regions (Dolinskaya, 2002). Such a policy naturally has given rise to substantial income differentials within the country. Dabla-Norris et al (2001) reports that the maximum per capita GDP was 40 times greater than the minimum per capita GDP in 1992 and that this size of difference remained constant in 1997. Such substantially large income differences among regions has resulted in large regional differences in revenues. Dolinskaya (2002) reports that disparities in per capita revenue collections have increased steadily during the transition period of the 1990s. As expected, economically wealthier regions have collected greater revenues.

These regional income and revenue disparities have made it inevitable for the central government to intervene in local government financial management through revenue sharing and transfer policies. Since 1994, the Russian government has tackled regional disparity problems by adopting a formula-based equalization transfer system and increasing the number of donor regions (for which the amount of taxes collected and credited to the federal budget exceeded the amount of financial transfers received). To meet this purpose, the government introduced the Fund for Financial Support of Subjects of the Russian Federation, which can be decomposed into two windows.

The first window, called "Regions in Need of Financial Assistance" was designed to equalize revenue availability across regions. Whereas, the second window, called "Regions in Need of Additional Financial Assistance," was designed to provide additional funding to regions with expenditure needs not covered by other financing sources, including the first window. The first window was designed to equalize revenues across regions by comparing actual revenues per capita for the most recent year for which data were available in each region, to the average revenues per capita in one of three groups of regions (the Northern territories, the Far East and the rest of the country) based on similarities in the cost of living, Then, regions with per capita revenues below some percent of the group average were entitled to an equalization transfer. The second window estimates expenditure needs for each region by adjusting expenditures (actual disbursed expenditures and not a measure of expenditure needs) in a base year for all changes in legislation in the intervening years. Those regions whose expenditures exceeded revenues plus transfers through the first window are entitled to a transfer through the second window. Thus, the Russian system is essentially a rule-based transfer system.

Despite the government efforts, Le-Houerou and Rutkowski (1996) and Martinez-Vazquez and Boex (1998) have found that the equalization transfers have not helping to equalize regional income differences. This is in part due to the limited resources available for this Fund, and in part due to the influence of political negotiations. More importantly, OECD (2000) stresses that since the transfers are based on the past achieved levels of revenue and expenditures as primary criteria for allocations; they have undermined incentives for regions to improve fiscal performance.

In China, all taxes and profits were remitted to the central government before 1980, which in turn made transfers to local governments on the basis of centrally approved expenditure priorities. In 1980, a revenue sharing scheme was introduced, so that the central government designated certain revenues from each tax to the local governments. Under this system, those accruing to the central government, the local governments, and those shared between them were determined through negotiations (Arora and Norregaard, 1997).

The revenue-sharing system was modified in 1985 in order to raise the share of revenue accrued to poorer regions. The system revision was such that local government must submit part of the excess if local revenue exceeds local expenditure, while a higher proportion of shared revenue could be retained by local government if the local fixed revenue fell short of local expenditure. If all of shared revenue still did not balance the local budget, local government could receive a grant from the central government. While this revision helped to narrow regional fiscal disparities, it lowered incentives for prosperous regions to raise tax revenue. This problem has led to a further modification in 1988, which intended to raise the revenue share also to economically wealthier regions. The new system introduced several kinds of revenue-sharing contracts targeting different localities. The impact of these two revisions has led to not only a greater portion of revenue to be retained by local government, but also divergent and complex revenue sharing schemes. Meanwhile, the expenditure responsibility designated to the central and local governments respectively has not changed throughout the period. In general, the central government was responsible for fixed investment, national defense expenses, and debt service payments. Local governments were responsible for spending on social welfare, such as education, health, administration, and agricultural development (Arora and Norregaard, 1997).

During the mid-1980s, both central and local government revenue declined as a share of GDP. To prevent central government tax revenue from declining further, some reforms were introduced from 1988. Those reforms included incremental revenue contract, proportional sharing of total revenue, proportional sharing of total revenue and incremental sharing, remittance incremental sharing, fixed remittance and fixed subsidy. These reforms have been revised several times since then, but they not only failed to achieve an increase in central government revenue, but have also failed to efficiently perform inter-governmental transfers that are necessary to narrow growing regional income disparities. More importantly, these fiscal contracts produced local governments incentives to reduce their tax-raising efforts and shift revenue collection efforts away from revenues that had to be shared with the central government toward those over which they had greater control.

As for the revenues under their controls, local governments provided tax concessions, exemptions, and refunds to State-Owned Enterprises (SOEs) under their jurisdiction, thereby helping those SOEs to accumulate retained earnings. The local governments then utilized part of those retained earnings (which constitute part of the extra-budgetary funds) to finance local projects. These practices have given rise to an increase in extra-budgetary funds, thereby lowering the budgetary revenue shares for local governments and causing a decline in central government revenue sources.

Ma (1997) reports that the Chinese inter-governmental transfer system consists of the following three mechanisms. The first mechanism is based on the contract system that prevailed during 1988-1993, where the local governments submit revenues to the central government and receive transfers from the central government according to the contract. Despite various modifications, the system continued even after 1994. The second mechanism is returned revenue from the central government according to a calculation that ensures each local government retains no less than what it did in 1993. These two mechanisms are called “general purpose transfers”. The third mechanism includes various specific purpose grants. Ma (1997) claims that these general purpose transfers have not been able to effectively address regional disparity issues, since they have been designed to recognize the vested interests of local governments. Moreover, the criteria used for general purpose transfers are not clear and are often determined discretionally, causing unnecessary and unproductive bargaining and rent-seeking activities by local governments.

Thus, it is clear that the current inter-governmental system has not functioned well to arrest growing regional income differences. In addition the failure to fulfill the redistribution goal, the Chinese government has worsened efficient resource allocation by making the revenue sharing and contracts systems complicated and letting local governments accumulate extra-budgetary revenues. As compared with the Russian system, the Chinese system is largely discretionary-based, so that the system tends to be less transparent and becomes an ineffective means to address regional disparity issues.

Such a system is likely to severely undermine both central and local governments' fiscal sustainability in the near future, given its small tax revenue size and mounting contingent fiscal liabilities. The limited ability to collect tax revenues has substantially weakened the ability of the central government to conduct effective stabilization fiscal policy in addition to redistributive fiscal transfer policy. Contingent fiscal liabilities stem from the potential costs of cleaning up huge non-performing loans in the state-owned commercial banks, unpaid pension liabilities, and publicly guaranteed public debt. These observations suggest that the Chinese government needs to thoroughly investigate all government tax and expenditure management systems as well as inter-governmental relations. At the same time, the inter-governmental transfer system needs to be reformed in the immediate future before regional income gaps become uncontrollably large.

So far, the Russian system appears to be superior to China's since it is more rule-based and simpler. However, because of the huge regional income differences inherited from past economic policies together with frequent political intervention, the system has not yet succeeded in narrowing income differentials and promoting incentives to improve revenue and expenditure. As for China, even though regional incomes differences are in the order of 4 to 10 times so that their regional disparity problems are not as severe as those of Russia, the inter-governmental transfer system has not succeeded in narrowing the income differentials as well. Moreover, the delegation of revenue sources to local government without good management and monitoring systems appears to have resulted in inefficient tax and expenditure systems in China. This might ultimately undermine regional economic efficiency and have adverse impact on her economic growth.

4 Local Government Reform Efforts

4.1 Growing Criticism

Since the late 1970s, conflicts between the *Ministry of Finance* (*MOF*) (as a guardian of the national interest) and the *Ministry of Public Management, Home Affairs, Posts and Telecommunications* (MPHPT) (as an agent of local governments) have rapidly increased; since the MOF has rejected the request by the MPHPT that the amount of Local Allocation Tax should be raised. The MPHPT argued with the MOF that it was unreasonable for the central government to contain the transferred financial resources, while it forcefully imposed implementation of central functions on local governments under the Delegated Duty System. In addition, the MPHPT strategically formed a "spending coalition" with other Ministries, such as the Ministry of Land, Infrastructure, and Transport and implicitly asked the ruling Liberal Democratic Party (LDP) settle the problem; since the LDP with strong support from rural and poor areas could not politically accept curtailment of the local allocation taxes, which would inevitably lead to a retrenchment of daily public services in rural areas (Kitamura, 2002). In the presence of mounting political pressures, the MOF reluctantly satisfied the MPHPT's claims for a substantial increase in the local allocation taxes by issuing deficit bonds, which lead to the rapid deterioration of the fiscal balance.

The conflict between MPHPT and MOF reflects that the former responsible for setting the ratio of expenditure and burden sharing between the central and local governments, while the latter is concerned about the budgetary sustainability. Since the MPHPT has to secure local government finance under the current system, it has rapidly increased the amount of the Local Allocation Tax by issuing deficit bonds at the central level, which has contributed to raising the total public debt. This practice is opposite to those of other industrial countries, where the central government has attempted to curtail the amount of general grants to local governments in the presence of serious fiscal deficits, although this trend has been reversed in recent years in the face of growing central government deficit and debt.

It is increasingly recognized that this system has induced local government to petition central government for subsidies, and has consequently expanded the total local government expenditure—rather than having voluntarily performed administrative reforms. The whole local government system has been fiercely criticized by academics and media on the grounds that local governments are unable to modify the content of the system to meet local demands and were required to deliver the system in the manner that the central government requested (Kitamura, 2002). Since the early 1990s, moreover, local government financing problems have also encouraged local governments themselves to prefer decentralization reform to attract external finance. Furthermore, the business community began to prefer decentralization from the early 1990s, given that firms often had to wait for long to get a permit to construct their factories, for example, and most of these permits were actually issued by the central government under the Delegated Duty System.

4.2 Recent Decentralization Movements

The Resolution for the Promotion of Decentralization unanimously passed both Houses of the Diet in June 1993. The *General Principles and Policies Concerning the Promotion of Decentralization* was approved by Cabinet in December 1994, which led to the enactment of the *Decentralization Promotion Law* promulgated on May 1995. The Law provides that the *Committee for the Promotion of Decentralization* (*CHIHO BUNKEN SUISIN IINNKAI*) with a mandate to present the Prime Minister with guidelines for promoting decentralization should be established within the Prime Minister's Office as an investigative and deliberative body. Furthermore, the Law stipulates that the central government is responsible for formulating a Decentralization Promotion Plan and setting forth the requisite legal and financial measures based on the recommendation by the Committee. The Committee published the first recommendations to the then Prime Minister Hashimoto in December 1996, followed by the second recommendations in July 1997, the third in September 1997 and the fourth in October 1997. In response, the Cabinet approved the Decentralization Plan in May 1998 and the Second Decentralization Plan in March 1999 in response to the fifth recommendations made by the Committee earlier in 1999.

Given this background, Local Government formed a coalition with the business community with the aim of abolishing the System of Delegated Functions, which led to the passage of the Collective Decentralization Law (*Chiho Bunken Ikkatsu Ho*) in July 1999; with the effect from April 2000. This law aims to shift the highly-centralized government system to a more equal and cooperative system. The law took into account the Decentralization Promotion Plan and the four major recommendations, all prepared by the Committee for the Promotion of Decentralization affiliated to the Office of Prime Minister. The law envisages that local government would carry out public administration works independently of the central government, so that their operations could accommodate specific local conditions and thereby the local fiscal policy would become more effective and welfare-improving. Under this law, revisions were made to 475 existing different laws including the *Local Autonomy Law*.

The first part of the Collective Decentralization Law consists largely of (1) the abolition of the *Delegated Duty System* ([*KIKAN ININ JIMU SEIDO*], which treats the governors of prefectures and the mayors of municipalities as officials representing the central government); (2) a restructuring of duties handled by local governments (such as public service, urban planning) and legally delegated work (such as elections) performed under the Local Autonomy Law as autonomous work; and (3) an abolition of the *Local Administrative Official System* (which temporarily assigns public employees as national government officials in order to administer national mandates to local governments. Until today, national mandates performed by local government accounted for about 70-80% for prefectures and 30-40% for municipalities. This allegedly made the assignment of responsibility unclear and administrative services uniform without consideration of specific local needs. Under the new law, most of these mandates are now clearly defined as those that are to be undertaken by local government, except for some duties. The above new rules are supposed to limit central government Involvement in prefecture-level government affairs, and also limit central and prefecture-level government involvement in municipal government affairs.

The second part of the Collective Decentralization Law contains (a) the establishment of a committee for handling disputes between central and local governments in the Office of the Prime Minister and (b) an introduction of basic principles of involvement (such as the need to have legal rationales for central government involvement, requirement of minimum central government involvement, and transparency). The third part of the Law focuses on the promotion of devolution. In this context, a Special City System has been introduced in order to transfer authority to cities with populations of more than 200,000.

Consequently, several new developments have emerged. First, in line with this new move, the *Local Administration Bureau* (*Jichi Gyosei Kyoku*) of the *MPHPT* is now in charge of planning a new form of a more efficient and simplified local administration system, while local government is increasingly requested to promote local administrative reforms, ensure the observance of the information-disclosure ordinance, the administrative procedures ordinance, and reinforce the audit function. Half of the system, called "Locally Proper Functions", has already been transferred to local governments, while the rest called "Legally Entrusted Functions" continues to be implemented on behalf of the central government but on the basis of equal consultation between central and local governments. The Plan also enables local governments to introduce new taxes in addition to the legally defined tax items in close consultation with the MPHPT. The Decentralization Promotion Plan clarified that the central government should assume responsibility primarily for international affairs and matters in which nation-wide unified decision-making is desirable, while the administration of affairs close to residents should be entrusted to Local government. Under the new law, local governments are expected to carry out administrative works independently and improve the quality of their works in response to the conditions found in the respective regions.

Second, the merger of local municipalities has been promoted to remove inefficiencies caused by overlapping provisions of public services among small municipalities, and to improve levels of municipal administrative services. A "hometown development program" designed to revitalize local sectors from regional perspectives through the positive involvement of residents, and thereby stimulate overall economic growth, has been ongoing. While the number of 47 prefectures covering wider areas has remained the same, the number of municipalities has declined to 3,181 (678 cities, 1,951 towns and 552 villages) in September 2003—from 3,229 (671 cities, 1,990 towns and 568 villages) in 1999.

In addition, the *City Designation System* has been extended and refined since its introduction in 1956. Those cities with a population of at least 500,000 have been designated as *Designated Cities* (*SEIREI SHITEI TOSHI*) as part of efforts to cope with the problems of large cities, and have been given greater authority and administrative freedom with respect to social works, health, and urban planning. As of April 2003, there are 13 Designated Cities in Japan: *Osaka, Nagoya, Kyoto, Yokohama, Kobe, Kitakyushu, Sapporo, Kawasaki, Fukuoka, Hiroshima, Saitama, Sendai* and *Chiba*. In addition, those cities with a population of at least 300,000 and an area of 100 square kilometers have been designated as *Core Cities* (*CYUKAKU SHI*) empowered to take charge of all duties that can be carried out by designated cities, with the exception of work which can be more effectively undertaken by prefectures. As of April 2003, 35 cities have been designated as Core Cities. Moreover, those cities with a population of 200,000 or more have been designated as Special Cities (*TOKUREI SHI*) which are authorized to take charge of some of the administrative work delegated to Core Cities. As of April 2003, 39 cities have been designated as Special Cities.

Third, the *Council for the Promotion of Decentralization Reform* (*CHIHO BUNKEN KAIKAKU SUISHIN KAIGI*) was established in the Cabinet Office in July 2001 as the successor body to the Committee for the Promotion of Decentralization, after the latter's submission of its final report entitled "Outline of the Final Report of the Committee for the Promotion of Decentralization". The new Council carries out studies and deliberates on the modalities of duties and business in accordance with role sharing by central and local governments, methods of allocating tax and financial resources, the promotion of local government administrative and financial reforms, etc. In June 2002, the central government decided to reduce the total amount of the Local Allocation Tax. The Council of Economic and Fiscal Policy—chaired by the Prime Minister—reached the conclusion that the principle of curtailment in total public spending should be applied to the Local

Allocation Tax without exception and published a document entitled "Basic Principle on Economic and Fiscal Policy and, Structural Reform 2002" in June 2002. The Cabinet Meeting formally endorsed this document in the same month.

Furthermore, in June 2003, the government decided to adopt the *Three-Prolonged Reform* (*SANMI ITTAI NO SEISAKU*), which envisages a cut in specified subsidies (National Treasury Disbursement), a cut in unspecified subsidies (Local Transfer Tax) with the adjustment of the formula, and a transfer of tax-collecting authority. The idea is that once tax sources and authority are transferred from the central government to local government, local government is likely to find it no choice but to clarify its financial accountability and reduce unnecessary expenditures. If local government is able to obtain a large portion of tax revenue in exchange for a decline in subsidies (Local Allocation Tax and National Treasury Disbursement), it is more likely that local government will be encouraged to utilize its revenue more efficiently as a result of looking closer at the linkage between benefits and costs of respective projects.

In the same month, the Council for the Promotion of Decentralization Reform submitted the report Recommendation for Three-Prolonged Reform to the Prime Minister. The Council recommended deferring the transfer of some of the central government' s tax-collecting authority to local governments, while advocating reducing subsidies and tax grants to local governments, even though the three-pronged policy changes were intended to be present as a set. So far, this report has received strong criticisms, especially from governors and mayors, such that the report did not clarify when and which tax sources are to be transferred. Also, the Council for the Promotion of Decentralization Reform has been criticized by a number of mayors as having not played a role in coordinating the relationship between authority and public funds. They claimed that the central government is to take everything from local governments without giving it anything.

4.3 Coping with the Growing Revenue-Expenditure Gaps

Japan is now making efforts to promote decentralization by increasing the freedom and independence of local governments under the principle of "Authority for Public Services Should Be Shifted to the local governments As Far As Possible". Currently, the split of total public expenditure is 2:3 for central:local government (for example, ¥55 trillion or 37% for the former and ¥95.9 trillion or 63% for the latter in 2001), while that of tax revenue is 3: 2 (for example ¥50 trillion or 58% for the central government and ¥35.5 trillion or 42% for local governments in 2001). Currently, this gap is offset by the Local Allocation Tax and National Treasury Disbursements, as seen in Sections 2 and 3.

Therefore, the central government is attempting to raise the proportion of tax revenues to 1:1 and thereby reduce the income-expenditure gap as much as possible by reexamining the Three-Pronged Reform.

In respect to national treasury subsidies, the central government is to abolish or reduce its (current and investment) subsidies and enhance the effectiveness. As for the transfer of tax revenues, it is envisaged to raise the share of local tax revenues to total local expenditures and simultaneously achieve local tax systems with the least possible regional imbalances. In other words, central government is attempting to ensure stable local tax revenue sources, while securing the total amount of Local Allocation Tax (which is necessary to ensure a basic level of administrative services to residents regardless of their location) and simplifying their calculation method, with the purpose of promoting voluntary and active fiscal management at a local level. To achieve the first goal, it is aimed to expand resident taxes and local consumption taxes, and to secure fixed assets taxes, while introducing Taxes Based on Outward Criteria (*GAIKEI HYOUJYUN KAZEI*) other than income for enterprise taxes from 2009.

4.4 Expected Shift to a Market-Based Financing System

There are global trends toward decentralization and privatization; an increase in the issuance of bonds by local government is a phenomenon seen not only in Japan but also in other countries. In the United States, for example, local government (states and municipalities) issue bonds whose ratings and premiums reflect the soundness of fiscal positions. Investors in local governments' bonds are protected by bankruptcy laws and stringent disclosure systems. Because tax breaks are allowed on such bonds, small individual investors are encouraged to invest in them. In order to ensure greater security, more than 40% of municipal bonds are credit-enhanced by private specialized insurance firms, so that the payment of the interest and the principal is guaranteed at the agreed-upon due dates on many bonds issued. By contrast, German local governments borrow funds largely from banks specialized in local government financing (such as Landesbanken and private mortgage banks), accounting for 83% of local government total borrowing. These banks in turn issue bonds backed by these collected loans (so-called "Pfandbriefe bonds") in the market.

These practices substantially differ from Japan's, where a major portion of local government bonds are held by the government sector. About 45% of outstanding local government bonds are held by official funds (Postal Savings and Insurance), while the rest are largely held by designated local commercial banks. In other words, most of the bonds are not floated in the market and their issuing prices and coupon rates are determined uniformly. Since their issuing prices are above market prices, designated banks are forced to take a buy-and-hold strategy. As a result of deteriorating balance sheet problems, these banks have been increasingly reluctant to invest in local government bonds in recent years. Under the Collective Decentralization Law, the “approval” system is now set to transfer to a “consultation” system from 2006 onward in a move toward strengthening local government autonomy. Some sound local entities will be allowed to use a consultation system even before 2006. As decentralization progresses and the central government deficit rises, local governments are expected to raise revenue at their own discretion, making it inevitable that bonds will be issued through the market. So far, Japanese local government bonds have been fully guaranteed by the central government through an approval system.

4.5 Policy Recommendations

While the recent movements related to the Three-Prolonged Reform is desirable, the Japanese government needs to adopt the following measures before launching the Triangle Reform. First, the accounting system should be shifted from the cash-flow basis to the accrual basis. Because of the cash-flow accounting, the Japanese local government fiscal position looks sound on surface. However, the true fiscal positions become more transparent once financing items (such as local government bond issues and transfers) are reported below the line of local government own revenue-expenditure activities. The fiscal analysis on the cash-flow basis easily leads itself to the drawbacks of the accounting systems, such as misclassification of spending between essential entitlements and non-entitlement current spending (or between current and capital); revenue postponement or advancement to meet cash balances; an incentive to increase borrowing to cover short-term funding gaps, etc. This easily ends up in raising a public debt service burden.

Second, local governments need to prepare for the introduction of a market-based financing system. They are expected to raise revenue at their own discretion, making it inevitable that bonds will be issued through the market. So far, Japanese local government bonds have been fully guaranteed by the central government through an approval system. Under the Collective Decentralization Law that passed in July 1999 with the effect from April 2000, the “approval” system is now set to transfer to a “consultation” system from 2006 onward in a move toward strengthening local government autonomy. Some sound local entities will be allowed to use a consultation system even before 2006. Prior to this transfer, the government needs to develop infrastructure (such as bankruptcy laws, uniform disclosure and accounting systems, tax systems) that is necessary to introduce a market-based bond market.

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Instructions to Contributors

Revised February 25, 2004

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