

# **Introducing a Horizontal Fiscal Transfer System Among the Local Governments in Korea - Focusing on the Districts in Seoul Metropolitan - Government**

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## **I. INTRODUCTION**

The purpose of this paper is to find ways to mitigate the horizontal fiscal inequality that exists among the similar levels of local governments in Korea, focusing mostly on the Districts in the capital city, Seoul. The phenomenon of fiscal inequality among the different levels of governments has prevailed across the nation during the last decades, and it has not been solved yet at a satisfactory level. Traditionally, in Korea, fiscal inequalities existed not only in a vertical, but also, horizontal context. The vertical fiscal inequality is mostly featured between the central government and local governments, whereas horizontal inequality is mostly characterized among the same levels of local governments.

To examine the situation more clearly from the current perspective, first of all, this paper tries to analyze the vertical and horizontal inequalities in a macro perspective by utilizing the relevant statistics and information on local finance. In addition, this paper tries to delve into a specific situation of fiscal inequality among the districts in Seoul Metropolitan Government in various ways.

Following the analysis, this paper briefly reviews the current intergovernmental fiscal transfer systems in Korea and discusses the limitations and the problems of the current intergovernmental fiscal transfer system. After this, the paper deals with a recently submitted proposal for a tax swap

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between the Seoul Metropolitan City Tax and the District Tax to alleviate the fiscal inequality existing among the 25 districts.

Finally, understanding the fiscal inequality in a macro perspective based on the analysis results and also recognizing the limitations and problems of the current vertically-oriented intergovernmental transfers, this paper attempts to propose a policy suggestion for introducing a horizontal intergovernmental fiscal transfer system among the same level of local governments, especially, Districts in Seoul Metropolitan Government. Although the topic of horizontal fiscal transfer system is unpopular in the world-wide perspective on various reasons, it seems necessary and about the right time to introduce the type of system in Korea.

## **II. LOCAL AUTONOMY IN KOREA AND FISCAL CONDITIONS OF LOCAL PUBLIC FINANCE**

Local government system in Korea is basically a two-tier structure, the upper-level local government and the lower-level local government. The former consists of 16 local governments, 7 large metropolitan cities(including the capital city, Seoul) and 9 provincial governments. The latter consists of 232 local governments, including general Cities(Shi), Counties(Gun), and Districts(Gu). There exists quite a difference between the metropolitan city governments and the provincial governments in terms of the area size, population, population density, urbanization and administrative functions<sup>2)</sup>. The capital city, Seoul is divided with 25 districts under the Seoul Metropolitan Government and each of other six metropolitan city governments also has several districts, where the numbers of districts vary depending on the size of the population of the cities.

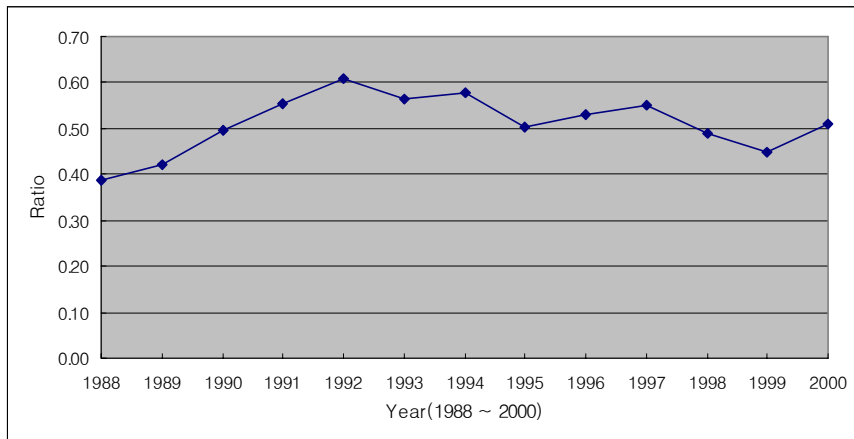
Local autonomy system in Korea was introduced in 1991 along with the directly elected local council system. Later, it developed into a rather advanced stage of local autonomy by adding the directly elected head(governors and mayors) system in 1995. As of July 2 of this year, it is recognized as the third term for the directly elected mayor system. Before the local autonomy system was introduced, there used to exist a substantial fiscal imbalance between the central and local governments. This vertical imbalance has narrowed greatly after the introduction of local autonomy. As is shown in Figure 1, the relative fiscal imbalance between the central and local governments in terms of the budget

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2) The functions of local governments among various levels are quite different, although they are not clearly delineated by laws, regulations, and practices.

size(expenditure) has narrowed substantially just before and after the launch of local autonomy, although the degree of the relative imbalance has changed slightly year by year<sup>3)</sup>.

Figure 1 Budget size(expenditure) comparison between the central and local governments(1988-2000)



Note: Ratio represents the ratio of local government expenditure relative to the central government expenditure.

The reduction of the fiscal imbalance between the central and local government has been achieved mostly by both the changes in the tax assignment and an activation of the fiscal transfer system between the two levels of governments. The relative ratio between the National Tax revenue and Local Tax revenue has changed from 9 to 1 in the 1980s to 8 to 2 relationship in the 1990s<sup>4)</sup>. At the same time, the size of the fiscal transfers from the central to local governments has increased sharply during the 1990s. According to the statistics, during the period between 1990 and 2000 the amount of the fiscal transfers from the central to local governments increased by 4.2 times(from 4,832.8 billion Won in 1990 to 20,342.8 billion Won in 2000). On the other hand, the amount of local tax revenue increased by 3.2 times(6,378.6 billion Won in 1990 to 20,361 billion Won in 2000). Especially, the growth rate of the fiscal transfers is greater than those of both the central government's revenue and GDP during the same period.

3) If the education finance(budget) for the elementary, middle and high school is counted as a part of the local finance, the gap between the central and local governments would be reduced greatly in the 1990s compared with that of 1970s and 1980s.

4) Nevertheless, the tax structure is still heavily concentrated on the National Tax and the relative ratio of the two tax revenues has nearly left unchanged throughout the 1990s.

Thus, roughly stated, the previous changes in the fiscal imbalance between the central and local governments in the 1990s are to be attributed more to the growth of the central government's fiscal transfers than to the tax system change.

Table 1 Changes in the tax revenue share between the National Tax and the Local Tax over time

	1975	1980	1985	1990	1995	1998	2000	2001
National Tax(%)	89.8	88.3	87.8	80.8	78.8	79.8	81.9	78.2
Local Tax(%)	10.2	11.7	12.2	19.2	21.2	20.2	18.1	21.8

Source: Ministry of Finance and Economy, Tax Summary, 2002.

At present, however, there are controversies with regard to an optimal fiscal distribution between the central and local governments. People taking side with the central government frequently argue that enough funds have been already transferred to local governments, while people taking side with local governments argue that more fiscal transfers from the central government are in a great need. This delicate issue cannot be resolved completely in the short-period of time. This issue should be approached rationally in the medium and long term perspectives, by carefully analyzing and designing the optimal distribution of functions across different levels of governments.

To sum up, substantial changes in the vertical fiscal imbalance(revenue distributions) between the central and local governments have occurred within the last decade.

Differently from the situation of the vertical fiscal imbalance, horizontal fiscal imbalances among the similar levels of local governments, like among metropolitan cities, provinces, cities, counties and districts have shown only a slight sign of improvement. The current situation of the horizontal fiscal imbalances, especially in the lower-level local governments, can be easily detected by the results of a statistical analysis presented in Table 2.

According to an analysis, the coefficient of variation for the total revenue in cities and districts turned out to be relatively high. This result clearly indicates that there exists a relatively high level of fiscal inequality among the same levels of local governments (However, in the case of the County, the coefficient of variation for the total revenue turned out to be less than 0.3). The coefficient of variations for own revenue(tax revenue plus non-tax revenues) and current non-tax revenue are relatively high(especially, the coefficient of variation for the tax revenue is higher than 0.8) in all cities, counties and districts. This

indicates that substantial differences exist in terms of financial resources(tax base) across the lower-level local governments.

These regional differences are partly corrected by the fiscal equalization grants such as Local Shared Tax and other fiscal instruments<sup>5)</sup>. This is why the coefficient of variation for the total revenue turned out to be much lower than that of the own revenue. In the case of Counties, for example, the coefficient of variation for the tax revenue is 0.8563, while that of the total revenue is 0.2720 primarily as a result of an aid from the equalization grant.

Nevertheless, there have been limitations and problems for the Local Shared Tax to perform as a key instrument for fiscal equalization. These were argued by a couple of research papers and also proved by the unrelenting reality of fiscal disparities. Most of the arguments or critiques on the vertical equalization grants are related to the problems of the grants formula, measurements for fiscal needs and capacity, and the operation of the Special Local Shared Tax(KIPF report). In addition, vertical fiscal transfer cannot influence the fiscal position of the rich local governments, although it generally helps for the expansion of the fiscal capacity of the poorer local governments. Lastly, various grants systems are not inter-linked to each other in a systematic way, thus, often resulting in a mixed impact on the status of the local fiscal inequality(This issue will not be further elaborated in this paper).

Table 2 Results of the coefficient of variation analysis on major local revenue categories(2000, settlement)

	lower-level local governments		
	Cities	Counties	Districts
<b>Total Revenue</b>	<b>0.4369</b>	<b>0.2720</b>	<b>0.3438</b>
<b>Own-Revenue</b>	<b>0.7094</b>	<b>0.5359</b>	<b>0.4378</b>
<b>Tax Revenue</b>	<b>0.8422</b>	<b>0.8563</b>	<b>0.8924</b>
<b>Non-Tax Revenue</b>	<b>0.6735</b>	<b>0.5381</b>	<b>0.4235</b>
<b>Current Non-tax Revenue</b>	<b>0.7794</b>	<b>0.5237</b>	<b>0.5341</b>

5) Briefly stated, the intergovernmental fiscal transfer system currently operating in Korea is basically a vertical one, mainly transferring money from the central to local governments and from the upper-level to lower-level local governments. Considering the size of the funds, the policy goals and the distribution formula, the Local Shared Tax is considered to be a most powerful and effective fiscal instrument for the fiscal equalization among local governments.

### III. FISCAL CONDITIONS AND INEQUALITY OF THE DISTRICTS IN SEOUL METROPOLITAN GOVERNMENT AND SOME RELATED ANALYSIS

In the previous section, the situation of the fiscal imbalance in Korea is generally reviewed and analyzed. In this section, the situation of fiscal inequality in Seoul Metropolitan Government and its 25 Districts is going to be examined in detail.

As of 2002, Seoul Metropolitan Government(SMG) is ranked among the top local governments in terms of fiscal capacity, measured by the Own-revenue Ratio<sup>6)</sup>. For example, SMG's fiscal capacity in terms of the Own-revenue Ratio is 94.7%, while the national average is 54.6% and that of the six metropolitan cities is 66.0%. Meanwhile, the average Own-revenue Ratio of the 25 districts in SMG is 54.5%(The national average for the Own-revenue Ratio of the districts is 46.0%), which shows about the same as the national average ratio. Thus, one may say that SMG has a relatively strong fiscal capacity but the belonged districts in general have relatively weak fiscal capacities. As is shown in Table 3, the situation in the other metropolitan cities is highly similar, only differing in degree.

Table 3 The Own-revenue Ratio of the Metropolitan  
Cities and Districts in Korea(2002)

(unit: %)

	Metropolitan Cities	Districts
Seoul	94.7	54.5
Busan	66.1	39.6
Daegu	64.9	40.5
Incheon	73.1	39.3
Gwangju	56.7	31.3
Daejeon	69.3	32.9
Ulsan	60.8	47.0

Source: MOGAHA, 2002.

6) The Own-revenue Ratio is defined as the ratio of the own-revenue(local tax revenue plus non-tax revenue) divided by the total revenue(including governmental fiscal transfers).

According to the statistics on the revenue of SMG presented in Table 4, the relative shares for SMG and the 25 Districts in recent years have stabilized around 65% and 35%, respectively in favor of SMG.

Table 4 A comparison of the revenue between SMG and its Districts(General Account, settlement)

Year	Settlement (billion Won, %)	
	SMG	Districts
1994	3707.8(64.4)	2048.5(35.6)
1995	4529.1(65.0)	2442.6(35.0)
1996	5992.6(67.0)	2955.4(33.0)
1997	6370.5(65.1)	3401.3(34.9)
1998	5640.1(64.1)	3155.8(35.9)
1999	6335.6(65.6)	3318.6(34.4)
2000	6999.3(63.6)	3998.7(36.4)

Source: SMG, Statistical Yearbook Seoul, 2001.

One of the main reasons for an occurrence of the fiscal disparity is due to the Metropolitan Tax-oriented tax structure. As of now, Metropolitan Tax includes 13 out of 17 local taxes and the remaining 4 taxes, the Property Tax, the Aggregate Land Tax, the License Tax and the Business Tax are allocated to the District Tax<sup>7)</sup>. In 2000, the tax revenues of SMG and Districts appeared to be 87.4% and 12.6%, respectively. On the other hand, the relative share of the Non-tax revenues between SMG and 25 districts appeared to be relatively similarly distributed(However, some fluctuations of the revenue share between the two levels of governments have occurred over the period).

However, if one analyzes the situation of the fiscal disparity among the 25 Districts one can notice of a widening trend of the disparity in recent years despite an operation of the equalization grant system. Figure 2 and Table 6 show this trend of the fiscal disparity during 1996 to 2000, with the results of an analysis of the coefficient of variation. An observation of the changes in the coefficient of variation clearly indicates that the fiscal disparity among the Districts has widened, especially after 1998. The coefficient of variation, for example, increased sharply from 0.7476 in 1998 to 0.8128 in 2000.

7) There are 17 local taxes in Korea, some of which are levied by the upper-level local governments and others are levied by the lower-level local governments.

Table 5 Major revenue share between SMG and Districts

	Local Tax		Non-Tax Revenue		Current Non-Tax Revenue	
	SMG	D	SMG	D	SMG	D
1992	84.8	15.2	50.8	49.2	40.4	59.6
1993	83.9	16.1	31.3	68.7	32.8	67.2
1994	82.7	17.3	28.5	71.5	32.6	67.4
1995	81.2	18.8	40.4	59.6	30.2	69.8
1996	82.8	17.2	55.2	44.8	34.8	65.2
1997	84.7	15.3	60.4	39.6	40.5	59.5
1998	84.4	15.6	43.3	56.7	53.9	46.1
1999	85.9	14.1	45.8	54.2	54.3	45.7
2000	87.4	12.6	50.3	49.7	57.7	42.3

Note: Calculated from the 「Statistical Yearbook Seoul」, various years;  
M and D stands for Seoul Metropolitan Government and the Districts, respectively.

Figure 2 A trend of the fiscal inequality among the Districts in SMG(based on CV analysis)

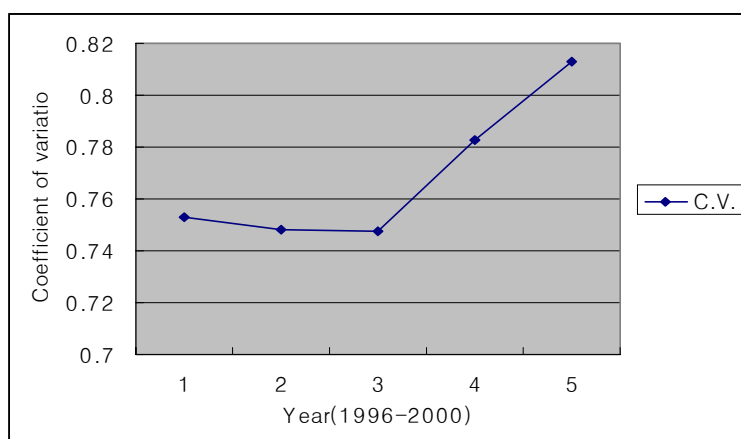


Table 6 Coefficient of variation for Districts in recent years

	1996	1997	1998	1999	2000
Coefficient of Variation	0.7528	0.7479	0.7476	0.7827	0.8128
Standard of deviation(Won)	131,967	143,972	132,384	159,522	182,893

Note: The coefficient of variation is calculated in per capita terms across the 25 districts in SMG.



Under this circumstance, SMG and other 6 metropolitan cities have adopted and have been operating a kind of revenue sharing(MCRS: Metropolitan City Revenue Sharing) to alleviate the fiscal inequality existing among the districts. MCRS is a general grant and is created by the Local Autonomy Law. The characteristics of MCRS are basically quite similar to the revenue sharing(Local Shared Tax) of the central government, especially in policy purposes, structure and the distribution formulae.

The purpose of the MCRS is to support the fiscal needs of the Districts in the Metropolitan cities and, at the same time, to alleviate the fiscal imbalance among the districts. The revenue source of the MCRS comes from a portion of the Acquisition Tax and the Registration Tax revenues, which are most important among the Metropolitan City Tax<sup>8)</sup>. MCRS consists of two different systems, which are the Ordinary MCRS and the Special MCRS. Except Busan and Daegu metropolitan cities, the Ordinary MCRS comprises 90% of MCRS, while the Special MCRS comprises 10% of MCRS. As of 2002 the sum of the MCRS in 7 metropolitan cities is 2,167.5 billion Won, consisting of 1,965.1 billion Won of the Ordinary MCRS and 202.4 billion Won of the Special MCRS.

MCRS is a formula grant and is distributed based on the relevant statistical information on the basic fiscal needs and basic fiscal resources(local tax revenue) of each district.

Despite the use of the MCRS, the fiscal disparity has not reduced substantially as was intended and hoped for. This is partly because of the highly uneven distribution of the tax bases and partly due to the problems and limitations of the revenue sharing mechanism. The problems and the limitations related to the MCRS are very similar to those of the Local Shared Tax mentioned in the previous section.

#### IV. RECENT ISSUES FOR SOLVING THE FISCAL INEQUALITY AMONG THE DISTRICTS IN SEOUL METROPOLITAN GOVERNMENT

Concerning the seriousness of the fiscal inequality problems existing among the 25 Districts in SMG, a policy proposal has been submitted recently. The essence of the proposal is to make an exchange of certain tax items between the Metropolitan City Tax and the District Tax to alleviate the fiscal inequality among the 25 districts. Specifically, an exchange of the Tobacco Consumption

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8) The contribution ratio of the two taxes are slightly different across the metropolitan cities, ranging from the highest contribution ratio of 70% in Gwangju to the lowest contribution ratio of 50% in Seoul and Incheon.

Tax(Metropolitan City Tax) with the Aggregate Land Tax(District Tax) was proposed by SMG and other supporters for the idea. The proposal was immediately supported by the majority of the districts whose fiscal conditions were relatively weak, while strongly opposed by the minority of districts(about 5~6 districts) which are relatively in good fiscal health. So far there has been a division of the two groups of districts, government and academic circles which support and oppose the proposal.

Table 7 Results of the Weighted Coefficient of Variation of the Tax Items

	Busan	Daegu	Incheon	Gwangju	Daejeon	Ulsan
Metropolitan City Tax	0.821	0.887	0.908	0.907	0.921	0.771
Acquisition Tax	0.179	0.265	0.306	0.389	0.374	0.344
Registration Tax	0.160	0.295	0.418	0.278	0.382	0.379
Race & Pari-mutual Tax	-	-	0.916	-	1.377	-
Resident Tax	0.937	0.794	0.887	0.771	0.379	0.464
Automobile Tax	0.141	0.122	0.099	0.048	0.179	0.090
Farmland Tax	4.681	2.424	20448	20136	2.818	-
Butchery Tax	3.452	0.933	20521	0.937	2.330	0.791
Tobacco Consumption Tax	0.461	0.455	0.523	0.464	0.439	0.396
City Planning Tax	0.297	0.408	0.236	0.271	0.183	0.257
Common Facilities Tax	0.465	0.423	0.337	0.365	0.248	0.372
Regional Development Tax	0.997	0.346	0.545	0.398	1.454	0.671
District Tax	0.407	0.471	0.525	0.340	0.361	0.274
License Tax	0.137	0.081	0.117	0.065	0.101	0.111
Property Tax	0.308	0.242	0.192	0.248	0.243	0.246
Aggregate Land Tax	0.510	0.796	0.822	0.497	0.445	.0265
Business Place Tax	0.699	0.396	0.731	0.499	1.159	.0686

Source: The Association for Facilitating the Local Tax Adjustment, An approach for the Tax Adjustment between the Upper-level and Lower-level Local Governments, 2001, p. 92.

These two taxes were introduced in the late 1980s to boost local finance just before the launch of local autonomy in Korea. In fact, they are an important source of local finance<sup>9)</sup>. Generally speaking, the growth rate of the Aggregate

9) The revenue from the Tobacco Consumption Tax in 2001 was 516.1 billion Won, whereas the revenue from the Aggregate Land Tax was 457.6 billion Won.

Land Tax has been greater than that of the Tobacco Consumption Tax. Among the local taxes, the Aggregate Land Tax is a highly unevenly-distributed tax across local governments in terms of revenue, whereas the Tobacco Consumption Tax is a relatively evenly-distributed tax(refer to Table 7). The reason for the unbalanced distribution of the Aggregate Land Tax revenue is related to the differences in land prices across the districts<sup>10</sup>).

These results are supported by the revenue share ratio of the top five revenue-producing districts of the Aggregate Land Tax. According to the calculation, revenues of the Aggregate Land Tax in the top-five districts(Gangnam, Joong, Seocho, Songpa, Youngdeongpo) occupy almost a half(51.1%) of the total revenue of the 25 districts, while the population of the five districts occupies only 20.9% of the total population of the 25 districts. In contrast, the Tobacco Consumption Tax revenue in the top-five revenue-producing districts occupies only 28.5% of the total Tobacco Consumption Tax revenue of the 25 districts. In addition, the following statistical features also provide supporting evidence for the existence of a fiscal inequality among the 25 districts.

(1)The top-five ranked districts in terms of a local tax revenue occupy 48.4% of the total tax revenues of the 25 Districts.

(2)The top-ranked district for the Aggregate Land Tax revenue, Gangnam(134.3 billion Won), has 10.3 times of the revenue of the lowest-ranked district, Gangbuk(13.0 billion Won). Gangnam District has 4.1 times of the average Aggregate Land Tax revenue of the 25 Districts put together.

(3)As for the Tobacco Consumption Tax, the top revenue-producing district, Gangnam District(36.4 billion Won) has 3.1 times of the lowest revenue-producing district, Dobong District(11.7 billion Won) and 1.8 times of the average revenue of the 25 districts.

One of the strong arguments for the proposed tax swap corresponds to the comparatively even distribution of the Tobacco Consumption Tax revenue and relatively uneven distribution of the Aggregate Land Tax revenue among the 25 districts. According to an analysis of the weighted coefficient of variation on the collected tax revenues in the 6 metropolitan cities(Seoul excluded), revenues of the License Tax and the Property Tax turned out to be relatively evenly distributed across the districts, whereas the Aggregate land Tax and Business Tax turned out to be unevenly distributed(The Association for Facilitating the Local Tax Adjustment, pp. 92-93).

Thus, if one emphasizes the stability and universality of the tax base as an

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10)In the case of SMG(2000), the coefficient of variation for the Aggregate Land Tax turned out to be 0.7465, whereas the coefficient of variation for the Tobacco Consumption Tax turned out to be 0.2011, which is substantially low.

essential eligibility requirement for the District Tax, the Tobacco Consumption Tax might be more suitable than the Aggregate Land Tax. In reality, this emerges unequivocally as a powerful argument for the SMG's tax swap proposal. However, this kind of argument cannot be accepted from the theoretical point of view. According to the public finance theory, property tax is most proper to be levied and managed by a local government, where various public services are provided closely to the local residents(Fisher, R. C.). It is generally recognized that the property value is directly or indirectly related to the service benefits provided by a local government. Thus, the proposed tax swap by SMG is not in harmony with the tax principle. In addition, the proposed tax swap seems more likely to be a temporary solution for the ease of the fiscal inequality than for a fundamental solution(Lee, S. W., p. 34).

## V. POLICY SUGGESTIONS

Considering the limitations and problems of the existing vertical fiscal equalization instruments, it is necessary to introduce a horizontal fiscal transfer system at the local levels. In addition to this, one needs to recognize the following facts as supporting arguments for introducing a horizontal fiscal transfer.

First of all, when the degree of fiscal inequality among the same level of local governments is severe enough it is likely to be a serious obstacle to the socio-economic development of the society. Secondly, it needs to be duly recognized that most of the fiscal inequality has more to do with the differences of the resource endowments than of the tax efforts, productivity or efficient management of local governments. And thirdly, a pursuit for an equality without hindering the efficiency of the society is conducive to stimulating the spirit of the communal society.

The horizontal fiscal transfer system must be implemented and designed meticulously for the system not to discourage both the tax(revenue) and efficiency efforts of the local governments which are supposed to render certain funds' contribution to the horizontal fiscal transfer system. Thus, it is important to maintain a careful and an appropriate balance between the improvement of fiscal inequality and a possible loss of efficiency and competitiveness.

In relation to this, it is of utmost pertinence that the two issues of how to finance and how to distribute the transfer funds are discussed in detail. It is reasonable to assume that the primary source of the funds for the horizontal fiscal transfer system is created from the available revenues of Seoul Metropolitan Government and its districts. In other words, funds should be

collected from the financially rich districts and distributed to fiscally poor districts based on a specific rule or formulae.

Professor Lee(Lee, P. W), for example, suggested that a certain portion of the Aggregate Land Tax revenue from the relatively wealthier districts may be used as a primary source of funds for the horizontal fiscal transfer system(Specifically, he suggested 10% of the excess amounts of the Aggregate Land Tax revenue should be collected from the districts with above-average revenue in comparison to the Aggregate Land Tax of the 25 Districts). He also suggested to use the Own-revenue Ratio as a complementary means in deciding the size of the fund contribution(Lee, pp. 20-24). Basically, this approach is reasonable except for the use of the Own-revenue Ratio<sup>11</sup>).

In line with this approach, this paper suggests to utilize some of the District Taxes with a highly uneven tax base as a primary financial resource for the horizontal fiscal transfer system. Based on the analysis in the previous Table 7, the Aggregate Land Tax and the Business Tax are observed to be highly unevenly distributed within the District Tax. Thus, it is reasonable to use certain portions of the Aggregate Land Tax revenue and Business Tax revenue as a primary source of the funds. For instance, 10~20% of the revenues of the two taxes would be collected from the districts where the respective tax revenue is higher than the respective average tax revenue of 25 Districts.

This rule applies only to the Districts, where the tax revenue of either the Aggregate Land Tax or the Business Tax in per capita terms is higher than 1.8 times(180%) of the average tax revenue of the 25 Districts. On the contrary, the Districts where the total tax revenue in per capita terms is less than 0.75 times(75%) of the average tax revenue of 25 districts are eligible for the fiscal transfers<sup>12</sup>).

This approach is based on the argument that highly uneven tax bases among the same level of local governments need to be partly readjusted by a pooling use of certain portions of the tax revenues related through the utilization of a fiscal transfer system. Nevertheless, if strong evidence exists that the current uneven distribution of the tax revenues is related to the tax efforts or productivity performance of local governments, one should be cautious for

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11)On various reasons the Own-revenue Ratio is unreliable and unstable, particularly, as a measurement criteria for the fiscal capacity of a local government.

12)Concerning with the distribution side of the fiscal transfers, several different criteria can be considered other than the proposed one. The tax revenue and/or own-revenue in per capita terms, and personal income might be reasonable variables. Considering the information and data currently available, per capita tax revenue and/or own revenues consisting of tax revenue and current non-tax revenue would be one of the most adequate criteria variables.

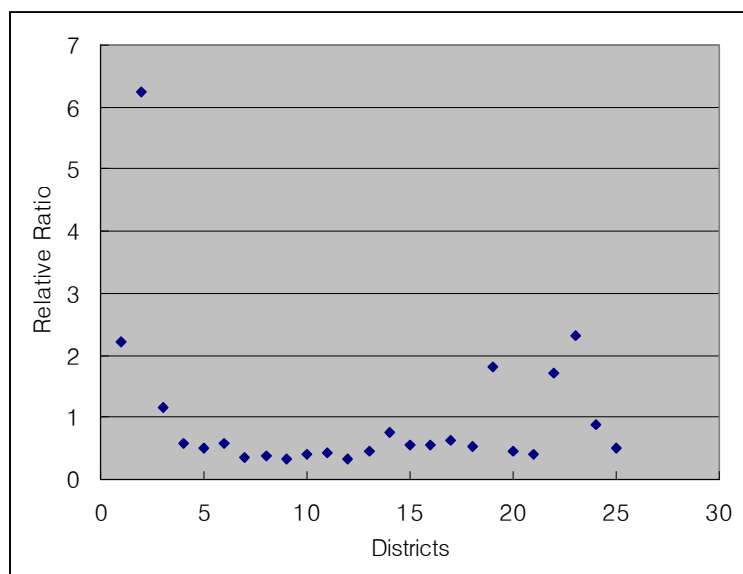
taking this kind of approach. However, no substantial evidence has been presented so far.

The reason why certain limited portions(10~20%) of the fund contribution are proposed is, most of all, not to discourage the tax efforts of the wealthier districts and also to mollify opposing movements against the proposed new transfer system.

To avoid further the possible side-effects of discouraging the tax efforts of the relatively rich districts, there should be a kind of limit to the amounts of contribution provided by the fund-supplying districts. For instance, a limit of no more than 7% of the total tax revenues can be set as the limit. In a similar vein, district must recognize the ceiling for the amount of money they receive. As a proposal, the recipient districts should be allowed to receive fiscal transfers only until their tax revenues with the transfer fund come up to 85% of the average tax revenue of the 25 districts. It is also important to maintain the rankings of the districts in terms of the fiscal capacity unaltered after an execution of a horizontal fiscal transfer. To satisfy this, a proper fiscal system should be carefully developed.

Applying the above-mentioned proposal into the related statistics(2000 basis), 5 districts(Jongro, Joong, Yeongdengpo, Seocho, Gangnam) are classified as the fund-supplying authorities and 17 districts are classified as the fund-receiving authorities. The remaining three districts(Mapo, Youngsan, Songpa) are classified as intermediary authorities(refer to Figure 3).

Figure 3 The distribution of the relative ratio of the tax revenues among the 25 Districts



The funds for the horizontal fiscal transfer may be partly allocated from the Metropolitan City Tax, without being limited to the District Tax. Various alternatives may be presented using several different combinations of the Metropolitan City Tax items. In the short-run, it would be reasonable, in both theoretical and practical point of view, to utilize a certain portion(3~5%) of the revenues of the Acquisition Tax and the Registration Tax as a supplementary fund for the horizontal fiscal transfer system. These two taxes are currently functioning as a primary financial source for MCRS, so the two systems - MCRS and the proposed horizontal fiscal transfer system - may be combined in a systematic way<sup>13)</sup>.

Based on the policy suggestions, the size of the funds for the horizontal fiscal transfer is roughly estimated using the settlement account of year 2000 as it is presented in Table 8. In estimation, only the following four cases are assumed and exercised;

- Case 1: 10% of the excess revenue of the Aggregate Land Tax and Business Tax in per capita terms from the districts with higher than 1.8 times of the average tax revenue of the 25 districts.
- Case 2: 20% of the excess revenue of the Aggregate Land Tax and Business Tax in per capita terms from the districts with higher than 1.8 times(180%) of the average tax revenue of the 25 districts.
- Case 3: case 1 plus 3% of the revenues from each of the Acquisition Tax and the Registration Tax(Metropolitan City Tax)
- Case 4: case 2 plus 3% of the revenues from each of the Acquisition Tax and the Registration Tax(Metropolitan City Tax).

Table 8 The size of the funds for the horizontal fiscal transfer

(unit: million Won)

	ALTax	BTax	AcqTax	RegTax	Total
<b>10% contribution</b>	<b>12,007</b> <b>(21,618)</b>	<b>4,642</b> <b>(25,426)</b>	<b>24,473</b>	<b>42,051</b>	<b>83,173</b> <b>(113,568)</b>
<b>20% contribution</b>	<b>24,014</b> <b>(43,235)</b>	<b>9,284</b> <b>(50,852)</b>			<b>99,822</b> <b>(160,611)</b>

Note 1: ALTax, BTax, AcqTax, RegTax represents the Aggregate Land Tax, Business Tax, Acquisition Tax, and Registration Tax, respectively.

Note 2: Numbers in the parentheses are 10%, 20% of the total tax revenue, respectively(different from the revenue portions of the excess revenues above the district average).

13) One might suggest certain basic contributions from the central government. For all that, the contributions should be limited considering the concept of the horizontal fiscal transfer system to be introduced.

According to the estimation results presented in Table 8, the size of the fund lies in the range between 16.6 billion Won and 33.3 billion Won without the aid from the SMG. However, with the aid from SMG(3% of the revenues from each of the Acquisition Tax and the Registration Tax) the size of the fund increases, ranging between 83.2 billion Won and 99.8 billion Won. In the latter case, each of the 17 districts which are classified as the fund-receiving authorities will receive on an average 48.9~58.7 billion Won.

Before introducing the horizontal fiscal transfer system in the local level, continuous efforts to build up a consensus and harmony among the different interest groups, especially the wealthier districts, are most important and necessary. Without obtaining a consensus it is very difficult for the proposed fiscal transfer system to succeed whether it be in the short or long term. Developing a well-balanced policy scheme, harmonizing equity and efficiency, in a proper way is always difficult and challenging in public finance.

Finally, in the medium and long run, the tax structure of the nation including the tax assignments among the different levels of local governments needs to be thoroughly reviewed and structurally changed. In doing this, the functional distributions of the different levels of governments should be readjusted and clearly defined. When the transformation process takes place in the right direction, the horizontal fiscal transfer system proposed in this paper also will have to change its structure.

## VI. CONCLUSION

The purpose of this paper is to find out ways to mitigate the existing horizontal fiscal inequality among the similar levels of local governments in Korea, particularly focusing on the 25 Districts in the capital city, Seoul. After realizing the seriousness of the fiscal inequality based on the statistical analysis, and the limitations and the problems of the existing revenue sharing devices, this paper proposed a policy suggestion that introduced a horizontal fiscal transfer system among the districts in SMG.

It is suggested to utilize some of the District Taxes with a highly uneven tax base as a primary source of finance for the horizontal fiscal transfer system. Specifically, 10~20% of the revenues of the Aggregate Land Tax and the Business Tax are recommended to be collected from the districts where the respective tax revenue in per capita terms is 1.8 times higher than the respective



average tax revenue of 25 districts. At the same time, the collected revenues should be transferred to the districts where the total tax revenue in per capita terms are less than 0.75 times(75%) of the average tax revenue of the 25 districts.

In this context, a limit of no more than 7% of the total tax revenues by the fund-supplying districts should be set to avoid a possible side-effect of discouraging the tax efforts of the fund-supplying districts. In a similar vein, the fund-receiving districts are allowed to receive the fiscal transfers only until their tax revenues with the transfer fund reach 85% of the average tax revenue of the 25 districts. Furthermore, this paper also emphasizes that the rankings of districts in terms of the fiscal capacity should not change after an execution of the horizontal fiscal transfer.

As for the fund expansion, a certain portion(3~5%) of the revenues of the Acquisition Tax and the Registration Tax is recommended as a supplementary fund for the horizontal fiscal transfer system. According to the rough estimations based on the policy suggestions, the size of the horizontal fiscal transfer fund lies in the range between 16.6 billion Won and 33.3 billion Won without an aid from the SMG, and in the range between 83.2 billion Won and 99.8 billion Won with an aid from SMG. In the latter case, each of the 17 districts which are classified as the fund-receiving authorities will receive on an average 48.9~58.7 billion Won.

Finally, the suggested policy proposals in this paper must be refined and further developed through the various practical analyses including impact analysis before they are finally adopted as government policy.

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